City of Lompoc Utilities Department Wastewater Division

Sewer System Management Plan

Initial Approval: July 21, 2009
First Revision: June 23, 2014
Second Revision: September 19, 2014

Contents

Element 0: Introduction

This introductory section provides background information regarding the purpose and organization of the City of Lompoc (City) Sewer System Management Plan as well as an overview of the City's service area and sewer system.

0.1 Introduction to Sewer System Management Plan

On May 2, 2006, the State Water Resources Control Board (Water Board) adopted the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (GWDR) Order No. 2006-003 (Order). The Monitoring and Reporting Program was amended July 30, 2013, by the State Water Resources Control Board through its Order No. WQ-2013-0058-EXEC. The City, as an entity which owns and operates a sanitary sewer system greater than one mile in length and which collects/conveys wastewater to a publicly owned treatment facility, is subject to the terms of the Order. The Order requires the City to develop and implement a system-specific Sewer System Management Plan (SSMP). Provisions of the SSMP must include proper and efficient management, operation and maintenance of the sanitary sewer system while taking into consideration risk management and cost benefit analysis, a spill response plan and reporting procedures for all Sanitary Sewer Overflows (SSOs).

Prior to the 2006 Water Board adoption of the Order, the City operated and maintained its sanitary sewer system under Waste Discharge Requirement Order No. 01-87 issued by the Central Coast Regional Water Quality Control Board (Regional Board) on May 18, 2001. The City was required to develop and implement an Infiltration/Inflow and Spill Prevention Program. This Regional Board Order was replaced by the Water Board Order and this earlier Program has been replaced by the SSMP.

0.2 Organization of SSMP

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

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

Each of these elements is contained 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.

0.3 Development and Implementation of SSMP

The City's Wastewater Division Collections Section and Pretreatment Program Coordinator began preparation of the SSMP in August of 2007. City staff prepared the SSMP to cover the 110 miles of sanitary sewer collection pipes and four pump stations the City owns and operates. In addition to the City's system, the City has two satellite agencies that convey sewage to the treatment plant: Vandenberg Village Community Services District (VVCSD) and Vandenberg Air Force Base (VAFB). These satellite agencies were 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 their July 21, 2009 public meeting. The SSMP was certified to the State Board upon approval.

The SSMP has been revised as needed to date. A more comprehensive revision was completed September 19, 2014, and will be submitted to the City Council for approval at their October 7, 2014, public meeting. The revised SSMP will be certified to the State Board upon approval.

0.4 Overview of Sewer System Covered by SSMP

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 some segments of the sewer system collection pipes seem to be from that era) and 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.

Table 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	208,720	39.53	36.5
8	239,610	45.38	40.7
10	30,455	5.77	5.1
12	18,770	3.55	3.1
15	27,145	5.14	4.5
18	43,285	8.20	7.4
21	9,075	1.72	1.3
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 2. Age Distribution of Sewer Pipes

Pipe Age	Length (feet)	Length (miles)	% of System by Length
2000-present	105,444	19.97	18
1960-1999	369,054	69.9	63
1916-1959	111,302	21.08	19
TOTAL	585,800	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. The second, third and fourth lift stations have Honda 5 KW portable generators for backup power. There are approximately 2,200 maintenance holes in the collection system.

SSMP
Element 1

1.0 Goals

- **Requirements:**

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.

Element 1.0: Goals

This SSMP element identifies goals 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 these goals. These goals provide focus for Wastewater staff to continue high-quality work and to implement improvements in the management of the City's wastewater collection system. This section fulfills the Goals requirement of the SWRCB SSMP Element 1 requirements.

1.1 Regulatory Requirements for Goals Element

The summarized requirements for the Goals element of the SSMP are as follows:

RWQCB NPDES Requirement:

Requires a Pretreatment Program for NPDES compliance. Restates requirements of the GWDR to create an SSMP to reduce and prevent SSOs, mitigate any SSOs that occur, report SSOs as required.

SWRCB GWDR Requirement:

The collection system agency must develop goals to manage, operate, and maintain all parts of its wastewater collection system in order to reduce and prevent SSOs, as well as to mitigate any SSOs that occur.

1.2 Goals Discussion

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

- "[To] provide professional, uninterrupted service to every user with safe, efficient, affordable, and environmentally-responsible collection and treatment of wastewater."

- "[To] keep the collection and wastewater treatment plant facilities in good operating order at all times."

- "[To] maintain full regulatory compliance in our operations with no controllable violations."

- "[To] educate the public on applicable regulations and policies so as to strive for full compliance in the community with respect to wastewater issues."

1.3 Plan

In support of this mission the Wastewater Division has developed the following goals for the operations and maintenance of its sanitary sewer system. This document outlines responsibilities, allocates staff hours to 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 implement 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 contribute to the proper management of the collection system and assists the Division in minimizing the frequency and impacts of SSOs by providing guidance for appropriate maintenance, capacity management, and emergency response.

1.4 Schedule

1. Increase Preventive Maintenance on the collection system to decrease SSOs.

    a. Clean all sewer mainlines every 12 months.

b. Continue with 1, 4, 6, 12 and 36-month preventive maintenance to enhanced and regular mainline sewer areas.

c. Conduct video condition assessment of each sewer mainline every ten (10) years and continuously identify areas for repair.

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

2. Identify collection system blockages due to fats, oil and grease (FOG) and develop strategies to decrease backups. (See Element 7).

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.

SSMP
ELEMENT2

2.0 Organization:

- **Requirement: The SSMP must identify:**

a. The name of the agencies responsible or authorized representative.

b. The names and telephone numbers for management, administrative and maintenance positions for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organizational chart or similar document with a narrative explanation.

c. Also the chain of communication for reporting SSOs from receipt of a complaint or other information, including the person responsible for reporting SSOs to the state and Regional Board and other agencies if applicable, such as County Health Officer, County Environmental Health Agency, Regional Water Board and/or State Office of Emergency (OES).

Element 2.0: Organizational Structure

This SSMP element identifies 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 This section fulfills the Organizational Structure requirement of the SWRCB SSMP Element 2 requirements.

Lompoc City Council:

Voted into office and generally under the direction of the City of Lompoc Utility payers, directs City staff for all City projects including main line sewer repair and replacement.

Lompoc City Administrator:

Under policy direction of the City Council, plans, organizes, and administers the operations of the City departments; 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, including the Wastewater, Water and Electrical Collection/Distribution systems; serves as staff advisor and General Public to the City Administrator on utility operations; communicates with various individuals, groups and organizations on City utilities services.

Information Systems/GIS:

Under general direction plans, organizes, and directs the activities of the Information Systems Division; for the day-to-day operation of the Information Systems; plans, assigns, directs and reviews the technology systems installed in the City. Information technology systems include local area networks, wide area networks, Geographic Information Systems (GIS), voice communications systems including cellular phones, pagers and telephone systems hardware and software, and all equipment and computer programs utilized in the Utilities Department.

City Engineering:

Develops and implements goals, objectives, policies and priorities; manages, coordinates and participates in engineering services activities, including design, contract administration and inspection of public works improvements, as streets, sewers, storm

drains, water facilities and other structures and facilities; develops and directs the engineering services work plan; assigns work activities, projects and programs; monitors work flow; reviews and evaluates work products and procedures; prepares or directs preparation of reports and recommendations to the City Council; makes recommendations on engineering-related issues to the Community Services Director, Utility Director, City Administrator and Public officials; establishes requirements for private development; reviews and checks designs, plans, specifications, maps and improvement plans on public works project; prepares and administers the division budget; approves right-of-way permits; supervises inspections of improvements constructed by developers; plans, coordinates and supervises field surveying traffic studies and design, development of public works standards and specifications; prepares engineering studies and reports; receives and resolves difficult and unusual public complaints and requests; participates in right-of-way acquisition proceedings; consults with and aids other governmental agencies in engineering matters; supervises, trains and evaluates professional, technical and support staff.

Community Development/Building Department:

Under general direction plans, organizes, and directs activities of the Community Development, Building Inspection and Fire Prevention including planning redevelopment, grant programs, sewer service lateral and grease interceptors/clarifier installations.

Wastewater Superintendent:

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 Legal Responsible Official (LRO) for the **Sewer System Management Plan** (SSMP).

Wastewater Collection Supervisor:

Under direction of the Wastewater Superintendent, schedules, supervises, and participates in the construction, maintenance and repair of sewer mains, service laterals, lift stations, maintenance holes and equipment; implements SSMP.

Wastewater Senior/Collection Worker:

Under supervision of the Wastewater Collection Supervisor, performs construction, repairs and maintenance of sewer mains, service laterals, lift stations, maintenance holes and equipment; emergency response.

Laboratory Director/Chemist

Under direction of the Wastewater Superintendent, supervises the operation of and personnel at the wastewater plant laboratory and the Water Resources Protection

Technician; interprets and implements Federal, State, and Local pretreatment regulations for wastewater discharges.

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.

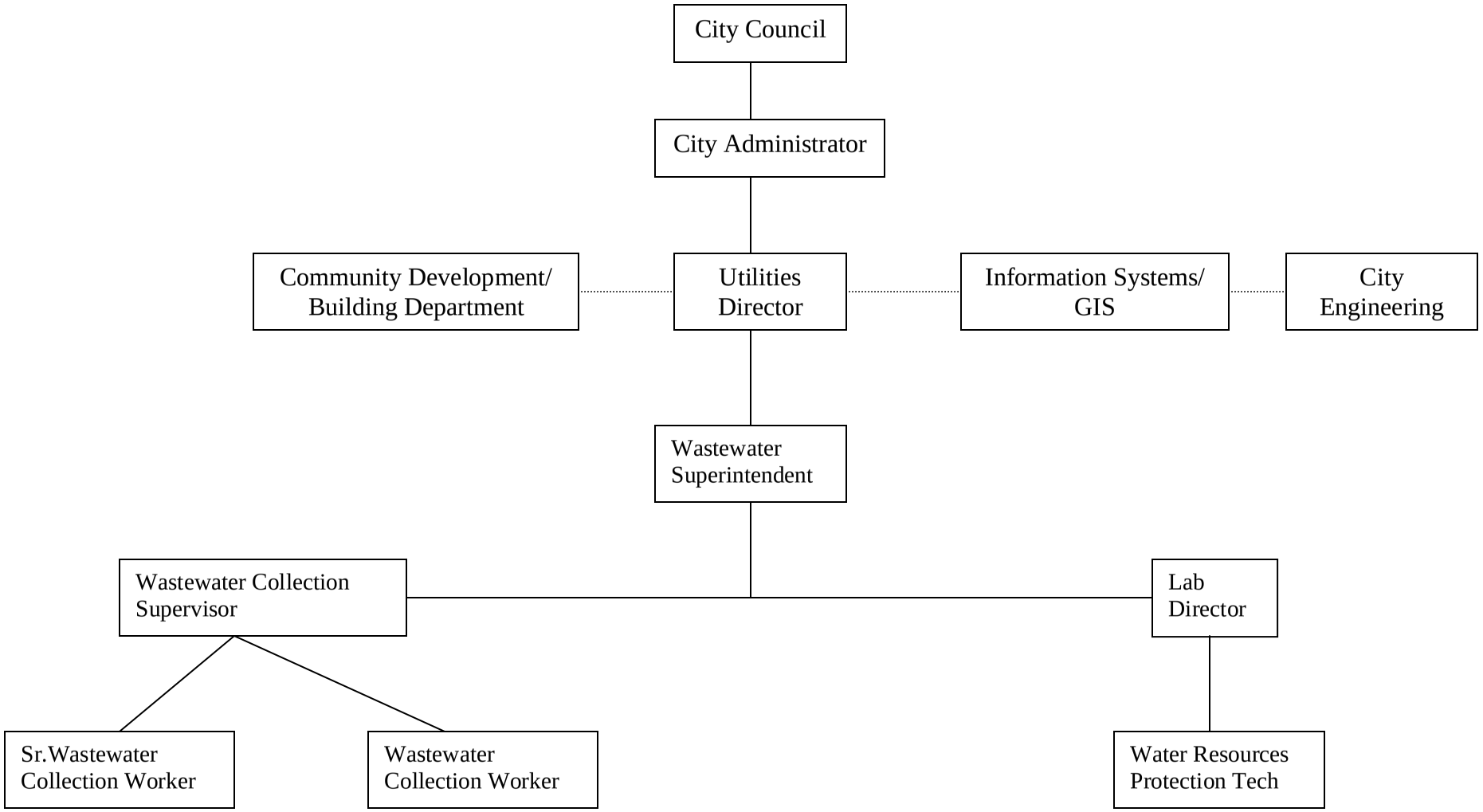
Environmental Coordinator

Under general supervision, to coordinate and implement recycling plans to meet legislative requirements; to perform a variety of technical and professional analytical work involving the completion of initial studies and preparation of environmental impact reports and negative declarations.

2.2 Names and Telephone Numbers:

NAME	OFFICE	CELL
Larry Bean, Utility Director	(805)875-8299	(805)698-7856
Tim Smith, WW Superintendent	(805)875-8415	(805)455-6078
Dorin Marrs, WW Collection Supervisor	(805)875-8408	(805)315-7098
Rickey Pepper, Sr. WW Collection	(805)875-8416	(805)315-7013
Todd Zarkovacski, WW Collection	(805)875-8416	(805)315-7064
Gary Silbaugh, WW Collection Worker	(805)875-8416	(805)315-7096

ORGANIZATIONAL CHART



SSMP
Element 3

3.0 Legal Authority

- **Requirement**: Each Enrollee must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures that it possesses the necessary legal authority to:

a. Prevent illicit discharges into its sanitary sewer system including 1/1 from satellite wastewater collection systems, laterals, storm water, unauthorized debris and etc.

b. Required proper design and construction of sewers and connections.

c. Ensure access for maintenance, inspection and repairs to publicly owned portions of laterals.

d. Limit the discharge of FOG and other debris that may cause blockages. e.g. Enforce violations of its sewer ordinances.

Element 3.0: Legal Authority

3.1 GENERAL

The City of Lompoc has a comprehensive sewer use ordinance identified as Chapter 13 of the City of Lompoc Municipal Code. The Chapter is available at the City of Lompoc Website.

3.2 REQUIRED ELEMENTS

A. Prevent illicit discharges into the sanitary sewer system, including I/I from satellite wastewater collection systems and laterals, storm water, unauthorized debris, etc.

Illicit discharges are controlled specifically in sections:

13.16.240 General Discharge Prohibition
13.16.250 Specific Discharge Prohibitions
13.16.260 Hazardous Wastes
13.16.270 Trucked or Hauled Waste
13.16.280 Medical Facility Wastes
13.16.290 Radioactive Wastes
13.16.300 Unpolluted Water
13.16.310 Swimming Pool Waste
13.16.320 Water Softening Waste
13.16.330 Excessive Discharge
13.16.340 Limitations on Point of Discharge

Satellite wastewater collection systems are included in these prohibitions by reference. Person is defined as any individual, partnership, firm, associations, or “public agency”.

Satellite agencies (member agencies) that contribute flow to the Lompoc collection system include:

- Vandenberg Air Force Base (VAFB)
- Vandenberg Village Community Services District (VVCSD)

The point of connection for VAFB is at coordinates:

Latitude 34.66126023 – Longitude 120.4824822.

The point of connection for VVCSD is at coordinates:

Latitude 34.66121731 – Longitude 120.4840945.

The City maintains service/contract agreements with each of the member agencies.

Lateral I/I

Infiltration, the seepage of ground water into the service connection through defective or cracked pipes, pipe joints and connections – Inflow, 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.

Storm water cross connections to sanitary sewer

A connection between a storm drain system and a sanitary collection system. The City of Lompoc has no cross connections or combined sewers.

Unauthorized debris

Material that causes stoppages by getting hung up on roots or settling out in a sewer is unauthorized debris.

3.3 Require proper design and construction of sewers and connections.

Approval of plans for sewer construction. This section requires that all construction or alteration of any building sewer, sanitary sewer, public sewer, side sewer, or other facility shall require approval by the City. This approval is accomplished by requiring an Encroachment permit and/or Building permit. The permit requires that the work be done in accordance with City standards or as specifically approved by the Director of Public Works or his/her designee.

3.4 Ensure access for maintenance, inspection, and repairs to publicly owned portions of laterals.

Responsibility of private utility. LMC 13.16.120

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 the provisions of this chapter, all contractual agreements and all applicable laws, regulations, standards and limitations.

3.5 Limit the discharge of FOG (Fats, Oils, and Grease) and other debris that may cause blockages.

See Element 7 of this Sewer System Management Plan for a more detailed discussion of the City's program.

3.6 Enforce violations of City of Lompoc Municipal Code Chapter 13.

13.16.040 Connection to Public Sewer Required
13.16.050 Disconnection from Public Sewer
13.16.060 Tampering with Public Sewer
13.16.070 Maintenance of a Private Sewer
13.16.080 Right to Discharge Limited
13.16.090 Right of Inspection
13.16.100 Sampling and Analysis
13.16.110 Confidential Information
13.16.120 Responsibility of Private Utility
13.16.130 National Pretreatment Standards
13.16.140 Appeals
13.16.150 Special Agreements

SSMP
Element 4

4.0 Operation Maintenance Program

- **Requirement: The SSMP must include those elements listed below that are appropriate and applicable to the Enrollees system.**

a. Collection System Map

Requirement: Each wastewater collection system agency shall maintain up-to-date maps of its wastewater collection system facilities showing all gravity line segments and maintenance holes, pumping facilities, pressure pipes, valves, applicable storm water pumping and piping facilities.

b. Preventive Operation and Maintenance

Requirement: Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas.

The Preventive Maintenance (PM) program should have a system to document scheduled and conducted activities such as work orders.

c. Rehabilitation and Replacement Plan

Requirement: Develop rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short term and long term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of maintenance holes, sewer pipes and system for ranking the conditions of the sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implement the short and long term plans plus schedule for developing the funds needed for the capital improvement plan.

d. Training

Requirement: Provide training on a regular basis for staff in sanitary sewer system operations, maintenance and required contractors to be appropriately trained.

e. Contingency Equipment and Replacement Inventories

Requirement: Provide equipment and replacement part inventories including identification of critical replacement parts.

Element 4.0: Operations and Maintenance Program

4.1 COLLECTION SYSTEM MAPS AND INFORMATION

A. Information Management

The Wastewater Collections and Geographical Information Systems (GIS) strive 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.

Computer-aided Design Utility Underground Map Books

A computer-aided design (CAD) program, Bentley Micro Station Software, is the graphics program 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 a 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. Appendix 4-A is 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

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 preventative 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 program functions with the proper maintenance of key fields throughout GIS Layers.

Key Fields:

HANDLE – CAD Handles are unique alphanumeric character strings automatically assigned by CAD to each map feature in a drawing file. Utilities Department uses this unique identifier (ID) to maintain linkages between CAD graphical elements and geodatabase records.

FACILITYID – A required field (20 characters) that must be unique from all other identifiers of features in the geodatabase. Feature classes in the geodatabase that originate from a CAD file, have a FacilityID populated using a concatenation of letters (“SS” for sanitary sewer, “SD” for storm drainage) plus the CAD Handle. This character string provides the required unique ID for each feature in the geodatabase given that a CAD handle for a feature in the storm-drawing file may be identical to a handle for a feature in the sewer-drawing file.

LEGACYID – A required field (20 characters). This field contains asset feature ID’s (i.e. Manhole #s or Sewer Mainline ID’s, which are the upstream manhole # followed by the downstream manhole #).

LOCATION – A required field (100 characters). This field is populated with an associated address, nearest address/intersection, or utilization of the cleaning area code where a specific address is not applicable.

CONDITION & CONDITION DATE – Required fields (30 characters & a date field). This field is populated with the overall condition index rating following a thorough closed circuit television (CCTV) inspection of a mainline or inspection of a manhole (utilizing the City's standard coding systems) along with the date on which the inspection was performed.

WARRANTY DATE – A required field (date field). This field is populated when new assets are installed and have manufacture warranty periods.

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. 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 in 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 in 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 and profiles.

The GIS Manager performs edits to the master CAD underground utility map files should always follow the editing rules listed below. These rules facilitate the transition of edits into the GIS sewer layer files.

ALTER – When a feature is spatially altered in CAD, e.g. a pipeline is spatially relocated; the CAD operator should edit the existing feature element, adjusting it while keeping its original CAD Handle.

ADD – When a new feature is added to a CAD sewer file, the feature is given a new unique CAD Handle. It is useful to provide maps of new sewer features to the GIS operator displaying the annotation text information that will need to be entered into the GIS attribute fields.

DELETE – Prior to deleting features from a CAD sewer file, it is useful to provide maps of the features to the GIS operator displaying the CAD handle with a notation as to why the feature is being removed.

STANDARD RULES – All sewer pipes need to be individual line segments and have two end points snapped at each end of the line segment. If a pipe is stubbed, the end of the line segment shall have a point snapped to it with a layer name of “SS-MH-NO.” If a pipe segment extends far enough that it may warrant a manhole to be installed at the end of the pipe, it shall have a point snapped to the end with a layer name of “SSMH-FUTURE.”

4.2 PREVENTATIVE OPERATIONS AND MAINTENANCE OVERVIEW

The Wastewater Collection Section of the Wastewater Division has developed several maintenance approaches for the sewer collection system. Citywide mainline cleanings, ongoing preventative 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 eliminate preventable SSOs.

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

    b. Continue with 1, 4, 6 ,12 and 36 month preventative maintenance hydro cleaning.

    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, oil and grease (FOG) and develop strategies to minimize backups (Element 7).

3. Operate all lift stations efficiently and perform preventative 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.

4.2.A.1 Equipment Dedicated to Sewer Collection System

Quantity	Equipment	Purpose
2	Generator	Backup power for pump stations
1	CCTV Truck	Transport Mainline CCTV Camera
1	CCTV Mainline Camera	Repair and Preventive Maintenance
2	F-350 Pick-up 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

4.2.A.2 Current Personnel for the Maintenance of the Sewer Collection System

Quantity	Title	Duties
1	WW Collection Supervisor	Oversee Sewer Operations, Maintenance Programs, Pump Crew, Repair Crew and Emergency Response
1 **2**	Sr. WW Collection Worker	Preventive Maintenance, Pump Station, Inspection, CCTV and

CITYWIDE SEWER CLEANING

One goal of the 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 Wastewater Treatment Plant.

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.

PREVENTATIVE MAINTENANCE CLEANING OF ENHANCED AREAS

The Wastewater Collections has an enhanced preventative maintenance (PM) program for identified problem areas of the collection system.

A list of target areas by frequency of cleaning is found in Appendix 4-G, Sewer Preventative Maintenance Cleaning of Enhanced Maintenance Areas.

SEWER MAINLINE CLEANINGS

The sewer mainline cleanings 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 meet 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, if it is determined that rehabilitation or replacement of the line may be necessary, or may present an opportunity to remove this are from the PM list, Collection Supervisor is notified. At this point, the Collection Section will evaluate findings in the pipe 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.

COLLECTION SYSTEM PERFORMANCE

Objectives of preventative maintenance activities include the prevention of in sewer mainline blockages and SSOs. Performance indicators are useful in assessing the effectiveness of these activities, by keeping up-to-date historical logs (see Appendix 4-H).

4.3 REHABILITATION AND REPLACEMENT PLAN

Condition Assessment and Inspection

The Wastewater Collection has a goal of conducting a video condition assessment of each sewer mainline as required. Preventive Maintenance was selected to provide sufficient information to trend the condition of the lines and schedule repairs prior to failure.

The CCTV inspection is performed by Wastewater Collections. At a minimum, information from the CCTV inspection is documented in admins (Alpha) and is utilized in prioritizing, as needed, 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 (NASSCO) rating system. Staff conducting and/or evaluating the ratings have completed Pipeline Assessment and Certification Program (PACP) training. The CCTV inspection identifies lines that need more frequent follow-up inspection.

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 roadway scheduled for rehabilitation;
- 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.

Prioritization of Repair and Rehabilitation

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. Revenue 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.

Two-Year Rehabilitation and Replacement Program

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 (2) Year CIP will only identify funds being newly allocated to existing projects. 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

Managing the annual capital investment in sanitary sewer rehabilitation, inflow/infiltration improvements and capacity upgrades require a long-term conceptual planning document. This planning document is officially budgeted approved by the City Council; it identifies probable long-term financial needs and targets 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. This CIP identifies an ongoing commitment of funds for inflow and infiltration reduction in addition to significant funding identified for the sewer system.

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 preventative maintenance program. Work activities are developed and prioritized based on these inspections and completed prior to the next inspection.

Preventative 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 a 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 is required to complete various types of training as listed below. Collection staff must hold the appropriate CWEA Certificate.

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

APPENDICES

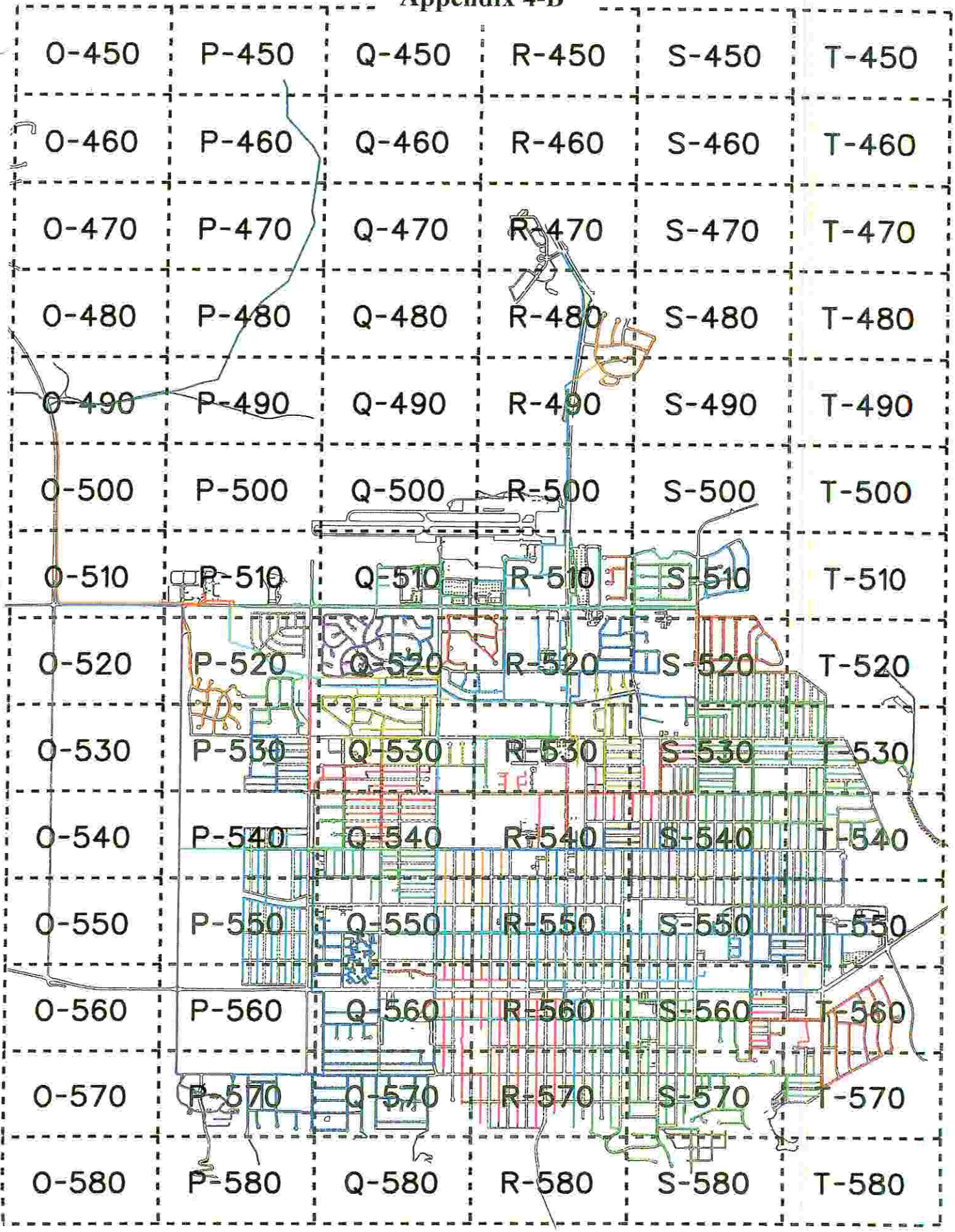
Appendix 4-A	Storm Drainage System
Appendix 4-B	Sewer Collection System
Appendix 4-C	Basins
Appendix 4-D	Sub basins/Cleaning Areas
Appendix 4-E	Cleaning Area Map (example)
Appendix 4-F	Frequency of Basin Cleanings (example)
Appendix 4-G	Enhanced Maintenance Areas
Appendix 4-H	Historical Log (example)
Appendix 4-J	Current Wastewater Division 5-year CIP

Appendix 4-A

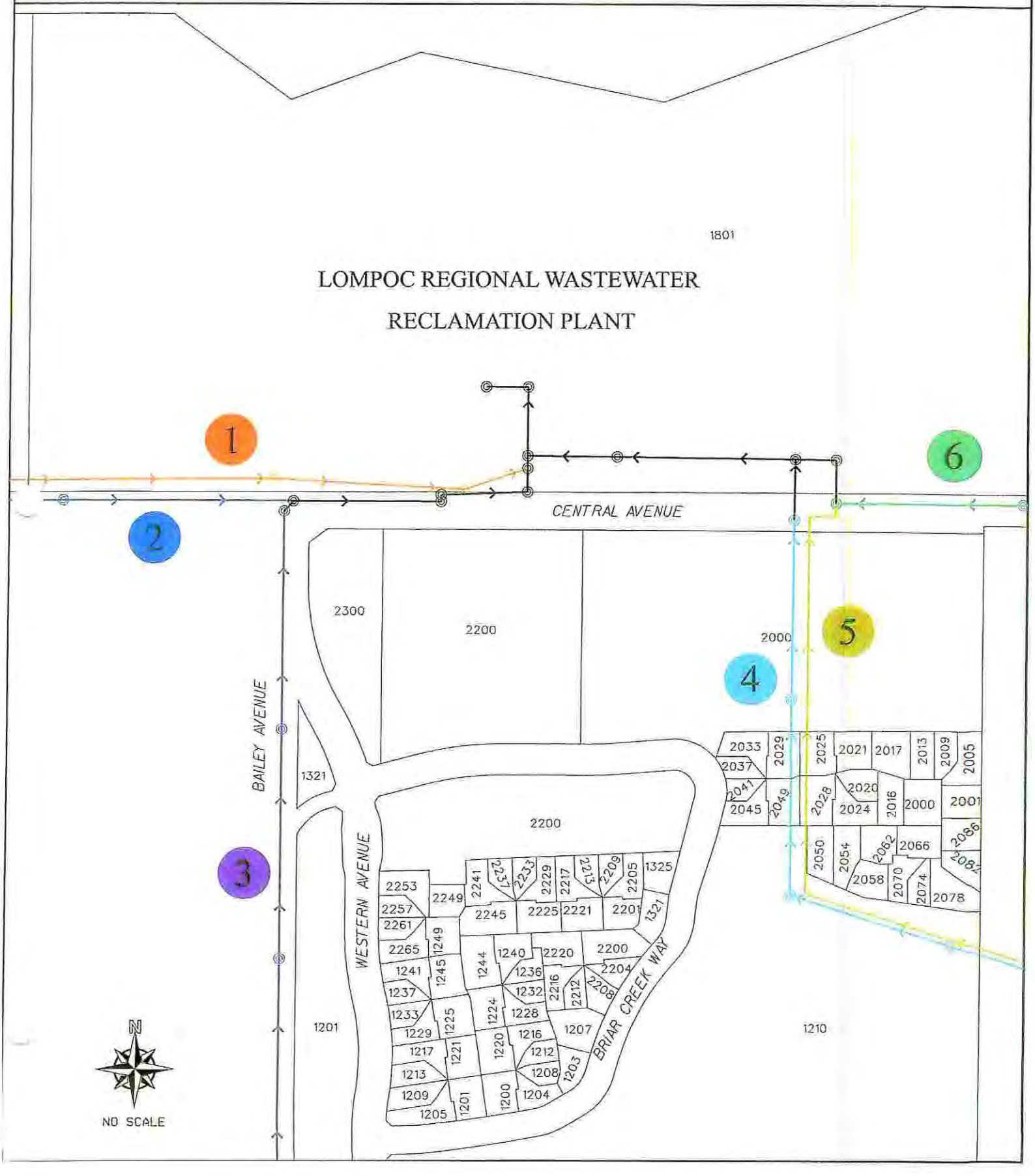

CITY OF LOMPOC
MASTER STORM DRAIN
SYSTEM MAP
Santa Ynez River
Miguelito Creek
Santa Ynez River
Miguelito Creek

WASTEWATER COLLECTION GRID

Appendix 4-B



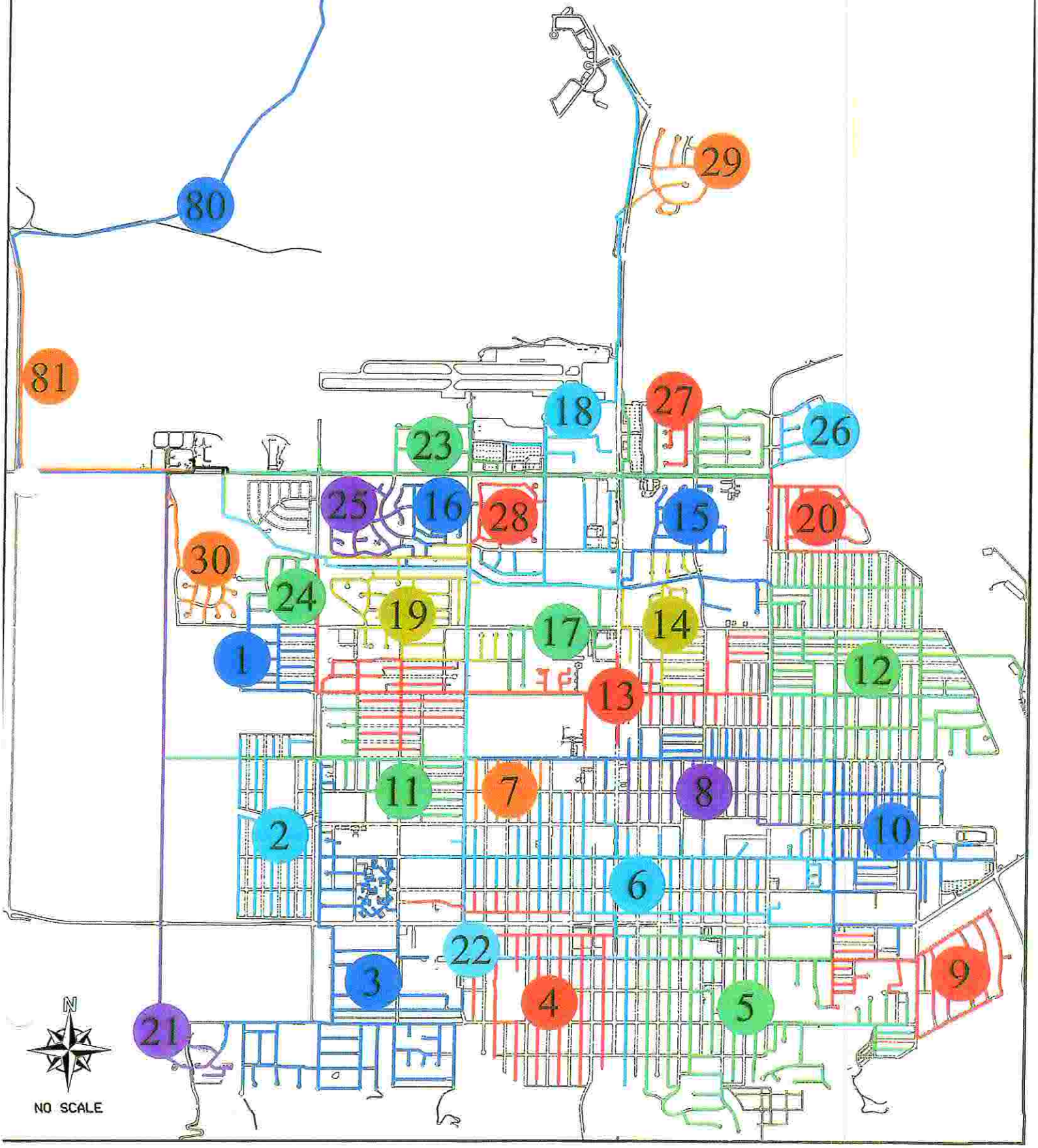
CITY OF LOMPOC
SEWER BASINS
Appendix 4-C



Appendix 4-D

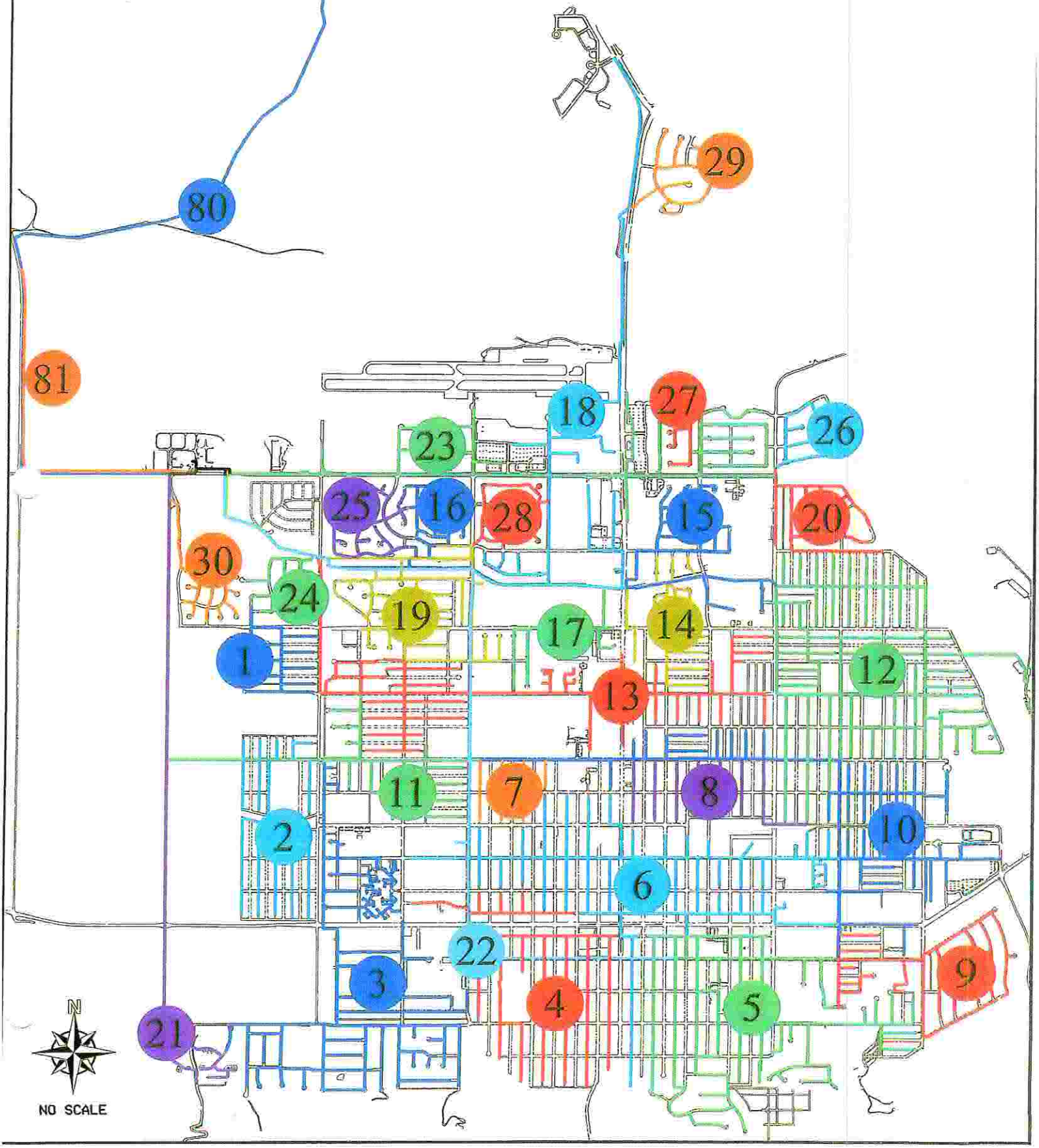
CITY OF LOMPOC

SEWER SUBBASINS / CLEANING AREAS



CITY OF LOMPOC

SEWER SUBBASINS / CLEANING AREAS



[SEGMENT] 4/2/86

SEWER LINE SEGMENT

Tabs: 2=MAINT 3=MANHOLE 4=TVCODES 5=INSPECTION 8=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.....

ENHANCED MAINTENANCE AREAS

EVERY 4 MONTHS

JANUARY	MAY	SEPTEMBER
DN-STREAM		UP-STREAM
01-109		01-108
19-010		19-011
03-012		03-013
03-013		03-014
22-008		22-009
10-027		10-107
12-309		12-308
12-310		12-309
12-311	RUN WATER AT RV	DUMP STATION

EVERY 6 MONTHS

JUNE		DECEMBER
DN-STREAM		UP-STREAM
09-103		09-108
06-007	USE SNAKE	06-068
06-050		06-049
13-224		13-226
13-226		13-300
13-227		13-229
13-229		13-228
13-010		01-107
23-006		23-008
23-007		23-009
24-118		24-117
18-102		18-101
18-103		18-102
18-104		18-103

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	

UTILITIES DEPARTMENT: 5-YEAR CIP

Wastewater DIVISION

PROJECT	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-28	5-yr TOTAL
1. Pave EHB	300,000						**300,000**
2. Sewer line replacement	220,000	600,000	326,000	652,000	978,000	1,303,419	**4,079,419**
3. Fire/security alarm system	177,000						**177,000**
4. Improve Floradale monitoring location	140,000	65,000					**205,000**
5. Influent works upgrade		360,000	220,000				**580,000**
6. Laboratory upgrades		42,000	220,000		220,000		**482,000**
7. Improve grit removal system			730,000		730,000		**1,460,000**
8. Consumer upgrades				850,000		850,000	**1,700,000**
TOTAL	**837,000**	**1,067,000**	**1,496,000**	**1,502,000**	**1,928,000**	**2,153,419**	**8,983,419**

PROJECT DESCRIPTIONS:

1. Provide asphalt liner for EHB
2. Commit to replace old sewer lines in City
3. Install fire and security alarm system to upgrade
4. Improve Floradale station with access vault
5. Upgrade old influent works, including gate replacement, improved air handling, replacement of corroded electrical circuitry, etc.
6. Replace flooring, benches, fixtures; modernize electrical
7. Improve system to reduce impact to oxidation ditches; screen hair and take out more grit
8. Install dumping stations, grease station

SSMP
Element 5

5.0 Design and Performance Provisions

- 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.

a. Standards for Installation. Rehabilitation and Repair

Requirement: The SSMP must identify 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 Standards

5.1 Standards for Installation, Rehabilitation, and Repair

The City of Lompoc has adopted the Green Book and city standards as our standard specifications for public works construction. Appendix: 5-A, 5-B, 5-C, and 5-D.

IMPROVEMENT PLANS

Improvement plans shall be on 24" x 36" standard plan sheets. Drawings to 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. As-built drawing is to be provided. Approval signature shall be City Engineer/Public Works Director.

SANITARY SEWERS

1. Design criteria (vitrified clay pipe)

    a. Coefficient of friction "n" = 0.013
    b. Minimum velocity = 2 feet per second
    c. Maximum velocity = 10 feet per second
    d. Flow factors

Land Use	Peak Design Flow Factor
Single family	0.0065 cfs/acre
Multifamily	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 are located in the City Standards.

5.3 Design and Performance Standards Goals:

- Update Design and Performance Standards as needed.

APPENDICES

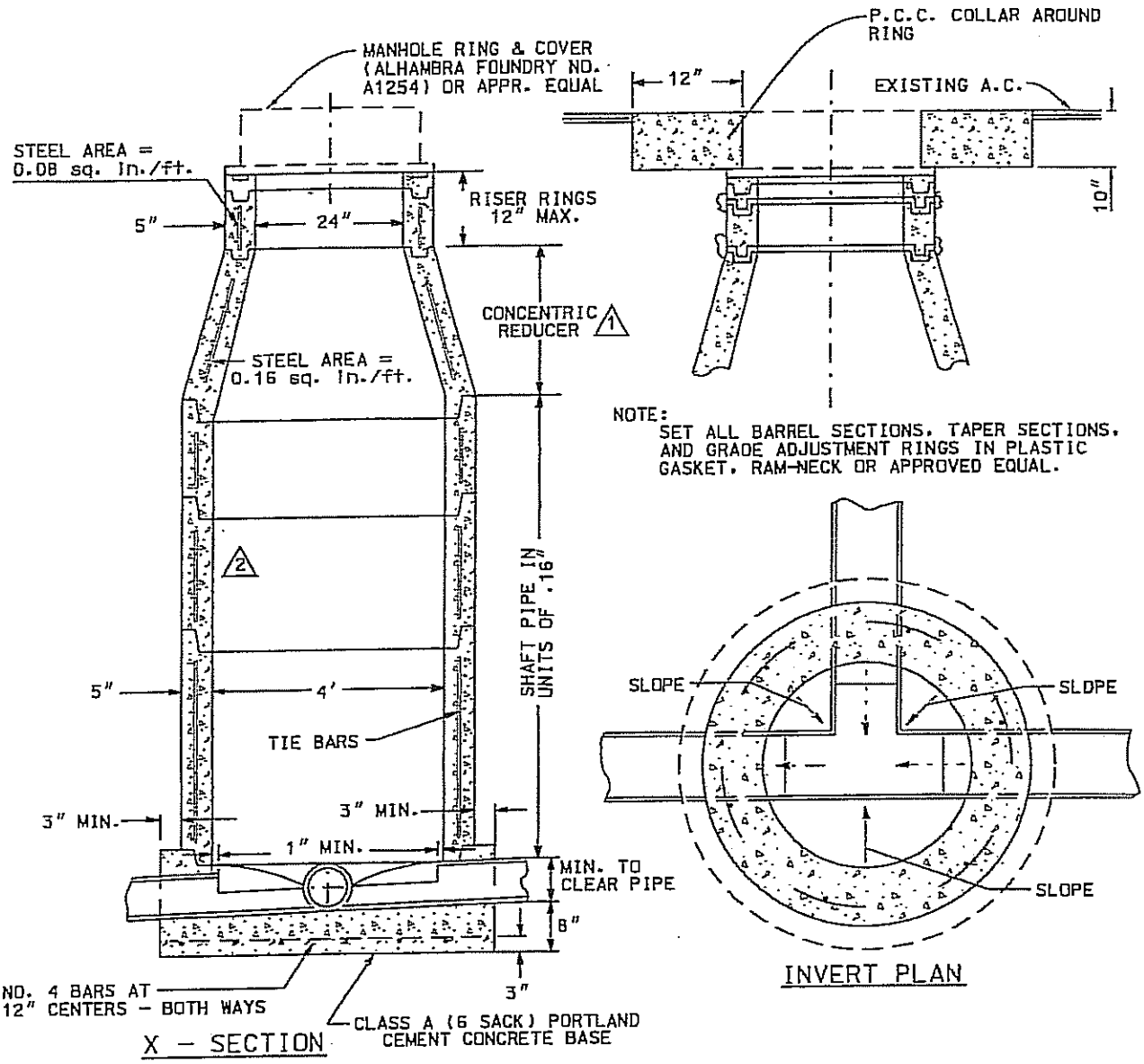
Appendix 5-A Standard Ring. Cover. Pipe. (R.C.P.) Maintenance Holes

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		7/13/90
	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

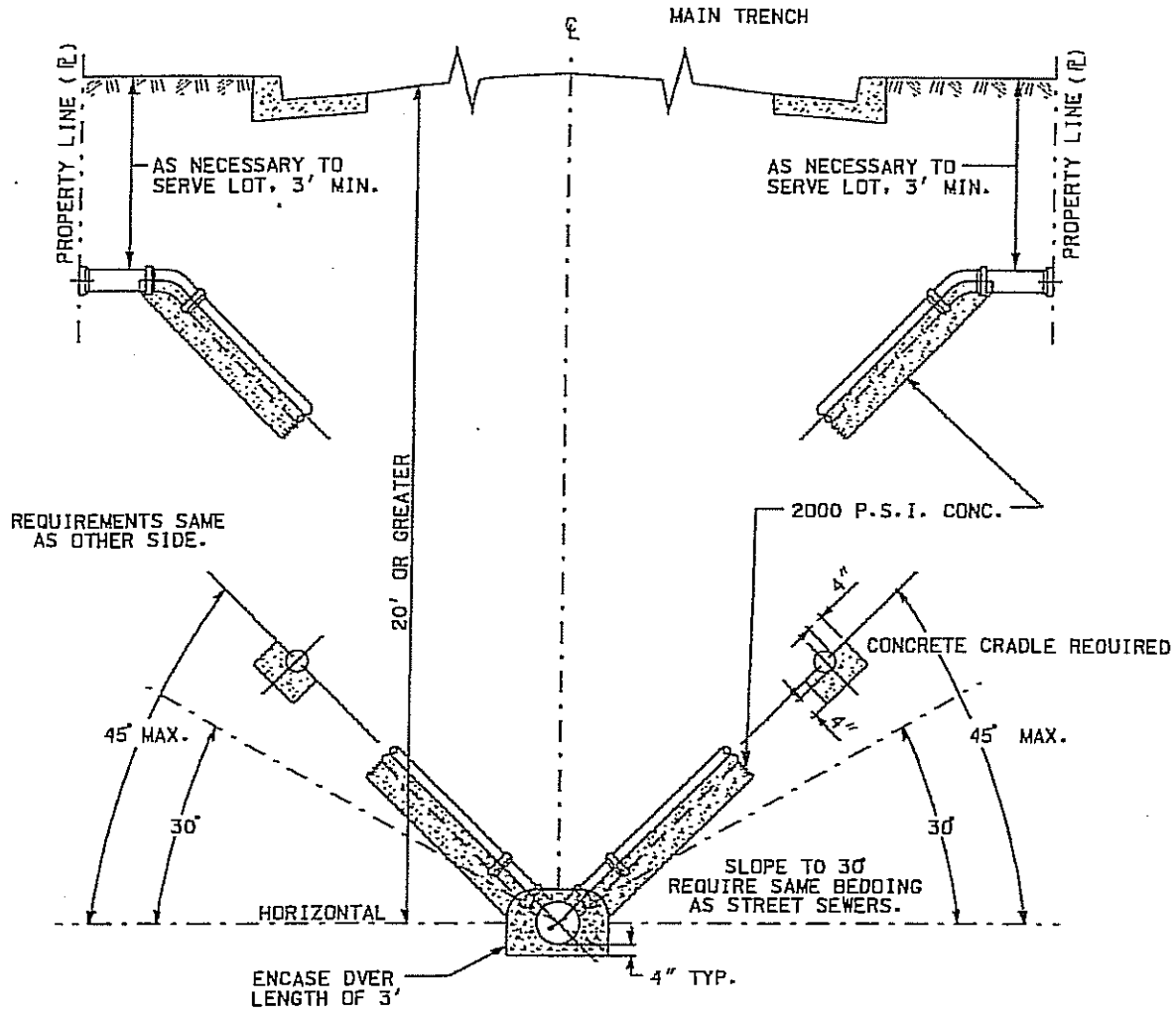
STANDARD R.C.P. MANHOLES

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.
1. 6. NO SERVICE TOPS.

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

CITY OF LOMPOC
Engineering Division

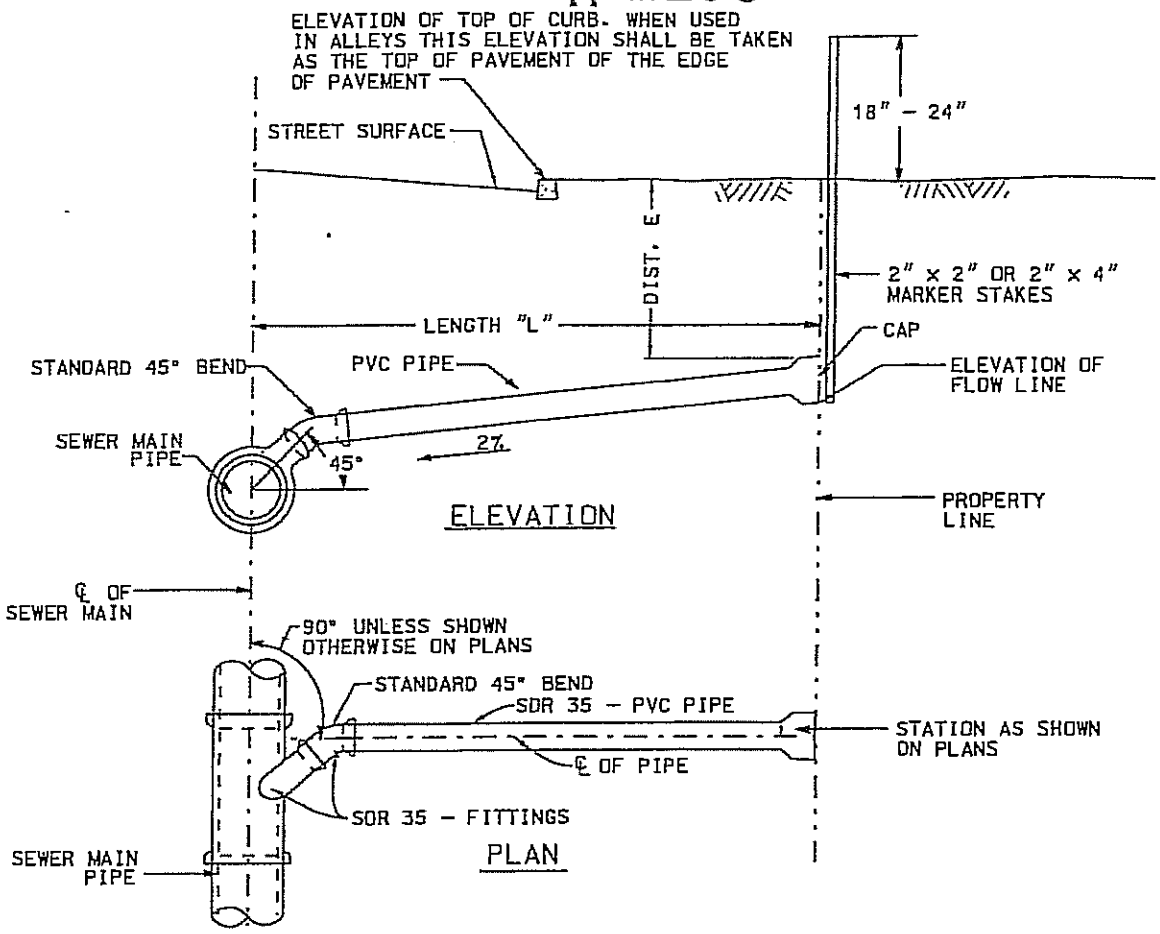
STANDARD SEWER DETAILS
LATERAL FOR DEEP SEWERS

STANDARD DRAWING NO. 302

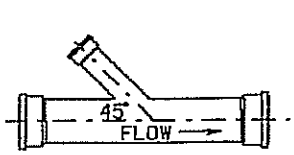
Resolution No. 3366(84)

SHEET 1 OF 1

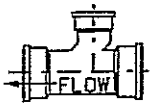
Appendix 5-C



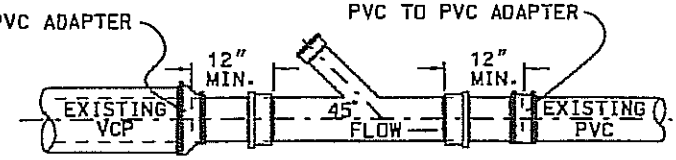
1. THE LENGTH "L" IS SHOWN ON THE IMPROVEMENT PLANS.
2. THE STATION OF THE POINT OF INTERSECTION OF THE CENTERLINE OF THE SEWER CONNECTION PIPE AND THE PROPERTY LINE IS SHOWN ON THE IMPROVEMENT PLANS.
3. THE INLET OF THE SEWER CONNECTION PIPE SHALL BE CLOSED BY A CAP MADE FOR THAT PURPOSE.
4. THE DISTANCE "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

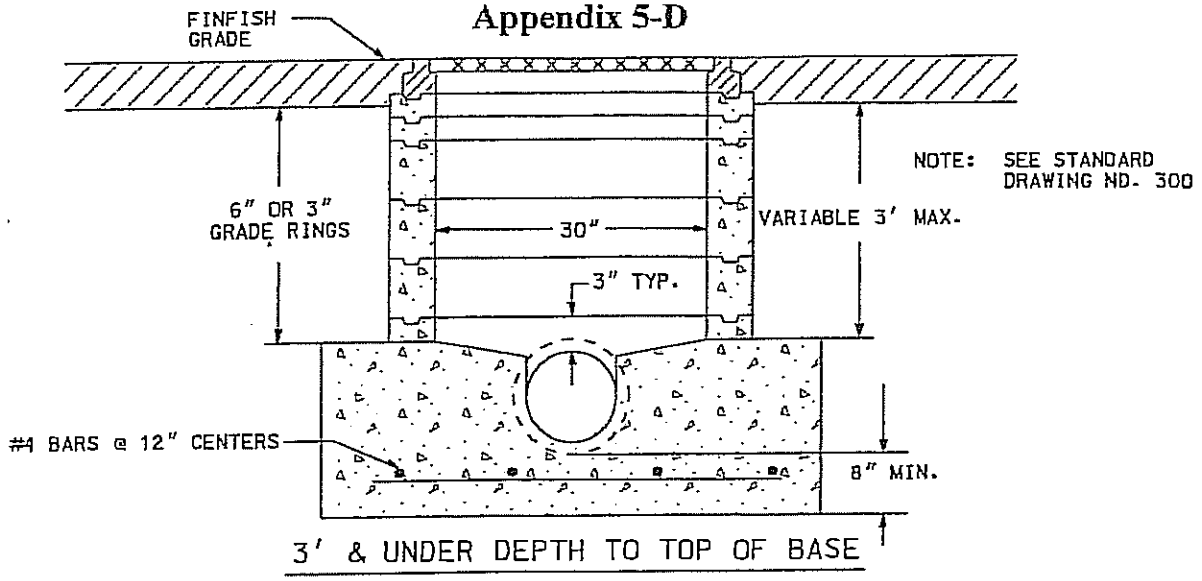
STANDARD SEWER LATERAL

STANDARD DRAWING NO. 305

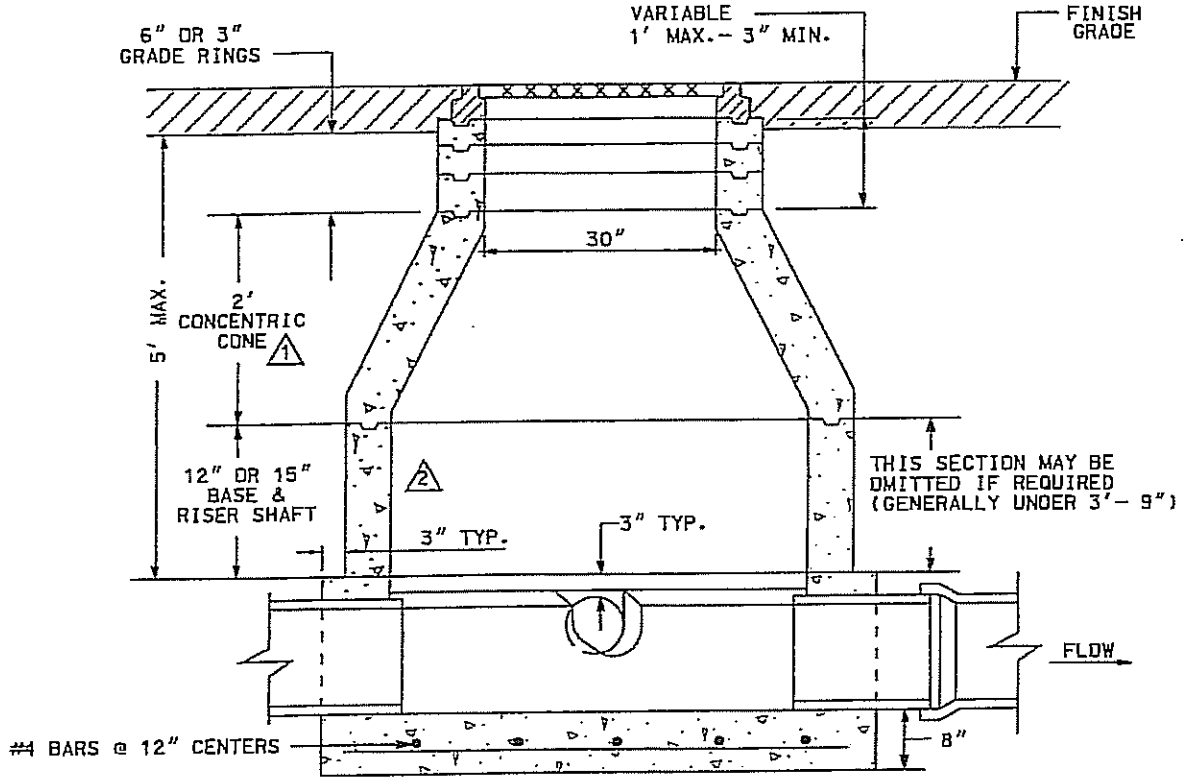
Resolution No. 3967(90)

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

SSMP
Element 6

6.0 Overflow Emergency Response Plan

- **Requirement: Each Enrollee shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum this plan must include the following:**

a. Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner.

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

c. Procedures to ensure prompt notification to appropriate regulatory agencies, health agencies, Regional Water Board, Water suppliers and etc. of all SSOs that potentially affect public health or reach water of the state in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, The California Water Code, other state law, Regional Water Board WDR or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification.

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

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

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

Element 6.0: Sewer Overflow Response Plan

This SSMP element discusses the Sewer Overflow Response Plan (SORP) the City of Lompoc Wastewater Division has established for actions related to sanitary sewer overflows, and discusses the role of the SORP in supporting the goals in Element 1.0. This section fulfills the SORP requirement of the SWRCB SSMP Element 6.0 requirements.

6.1 AUTHORITY

This Sewer Overflow Response Plan (SORP) is prepared pursuant to overflow emergency response plan element 6.1 of WDR 2006-0003, as amended in State Water Resources Control Board Order No. WQ 2013-0058-EXEC, to facilitate proper incident reporting procedures outlined in Operating in Accordance with the Permit, specifically Incident Reporting.

6.2 GENERAL

The Sewer Overflow Response Plan (SORP) 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 and water quality of surface waters and on customer service. The SORP 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 SORP, “confirmed sewage spill” is also sometimes referred to as “sewer overflow,” “overflow,” or “SSO.” The effective date of this plan is July 21, 2009, modified July 30, 2013, to accommodate State amendments to monitoring and reporting programs.

Objectives

The primary objective of the SORP is 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 sewer system owner.

Additional objectives of the SORP are as follows:

- Protect collection 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 SORP

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

Section 6.3 – Overflow Response Procedure

Section 6.4 – Public Advisory Procedure

Section 6.5 – Regulatory Agency Notification

Section 6.6 – Training and Contractors

Section 6.7 – Maintenance of SORP

6.3 OVERFLOW RESPONSE PROCEDURE

The Overflow Response Procedure presents a strategy for the 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.

Receipt of Information Regarding a SSO

An overflow may be detected by anyone, employees or others. 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 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 overflow.

Generally, telephone calls from the public reporting possible sewer overflows are received at 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."

The Wastewater Collection Supervisor completes the Sewage Overflow Report (Ref. Appendix 6 – B) as required in the current Monitoring and Reporting Program (MRP).

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 a SSO must trigger an immediate response to isolate and correct the problem. Personnel and equipment must be available to respond to any SSO locations. Additional collection personnel shall be "on call" in the event extra manpower is needed. A summary of the Sewer Overflow Response Tracking Protocol is included in Appendix 6 – D.

1. Dispatching Wastewater Collection Personnel

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

2. Personnel Instructions

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 SORP and other directives are met.

b. The Wastewater Department Superintendent or designee is responsible for verbally notifying State Water Resources Control Board and the City of Lompoc Environmental Coordinator responsible for health 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 SORP 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 area 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 regulatory agency with 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.

Circumstances may arise when the City of Lompoc could benefit from the support of private-sector construction assistance where large diameter pipes requiring 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) shall remain. Additional clean-up procedures may include:

a. Digital photos taken whenever possible 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.

Sewage Overflow Report

The Sewer Overflow Report in Appendix 6 – B contains information required to be reported to State Office of Emergency Services, Regional Water Quality Control Board, and the City of Lompoc Environmental Coordinator responsible for Health depending upon the nature of the spill. Typically, reporting is made through the California Integrated Water Quality System (CIWQS).

If the overflow results in a discharge to a drainage channel or surface water, Wastewater Collections shall notify the State Office of Emergency Services, Regional Water Quality Control Board, and the Santa Barbara County Environmental Health contact person orally within two (2) hours after becoming aware of the discharge, as per the MRP.

The Wastewater Collection Supervisor or designee completes a Sewer Overflow Report (Ref. 6 – B). The Wastewater Superintendent or designee promptly notifies agencies

as appropriate when the overflow is eliminated. Sewer overflow reporting information includes the following:

1. Determination if the sewage overflow reached surface waters, i.e., all overflows where sewage was observed running to surface waters, or there was obvious indication (e.g. sewage residue) that sewage flowed to surface waters;

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, when possible.

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.

6.4 PUBLIC ADVISORY PROCEDURE

This section describes the actions the City of Lompoc will take, in cooperation with the State 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 Superintendent or designee and City elected official determine if posting of a confirmed overflow is necessary.

Other Public Notification

The Wastewater Superintendent or designee determines the need for further public notification.

6.5 REGULATORY AGENCY NOTIFICATION PLAN

General

Notification of regulatory agencies shall take place in accordance with the current MRP (Appendix 6–A).

Immediate Notification

If the overflow results in a discharge greater than or equal to 1000 gallons to a drainage channel or surface water, or in a location where is probably will be discharged to surface water, Wastewater Collections shall notify the State Office of Emergency Services (Cal OES), obtain a notification control number, and provide information related to the discharge as requested by Cal OES within two (2) hours after becoming aware of the discharge, or as per the current MRP. The Regional Water Quality Control Board, and the City of Lompoc Environmental Coordinator shall also be contacted orally within two (2) hours after becoming aware of the discharge, as per the MRP. Substantive changes in the quantity or impact of the discharge must be made to these agencies until a certified CIWQS report in made.

Fax the initial and any updated Sewer Overflow Report to:

Office of Emergency Services
Fax Number: (916) 845-8511
Phone Number: (916) 845-8510

See Appendix 6 – E for additional contact information.

Secondary Notification

Wastewater Division Superintendent or designee may contact other agencies, as necessary, as well as other interested and possibly impacted parties.

6.6 TRAINING AND CONTRACTORS

Training comes under various City programs. It includes formal classroom training, 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. On-the-job internal cross training is actively pursued to ensure staff has a proficient working knowledge of a task. Collection crew is cross-trained so that critical tasks can be done without interruption even when the crewmembers change. Task proficiency is a requirement for all job positions and promotions, and training records are maintained to monitor completed classes and schedule employee training.
Crews are initially trained in the proper operation and maintenance of all new major mobile equipment and facilities by the contractor/manufacturer. The City Collection Crew provides operational training on sewer cleaning equipment.

Safety training is an integral part of the City's program. Every staff member receives formal training. Collections is trained in 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 SORP, and are appropriately trained. Emergency SORP training exercises are conducted periodically and documented.

The City identifies training needs for staff development in its annual budget and provides adequate funding for tuition reimbursement.

Prior to using a contractor for emergency repairs or SSO assistance, the City provides the contractor with its SORP, and the contractor must provide documentation that its employees or subcontracted employees engaged in the work are familiar with the SORP and have been adequately informed.

Additional copies of the SORP may be distributed to City personnel as needed.

6.7 MAINTENANCE OF SORP

The SORP is reviewed and updated as needed. Possible amendments may include:

A. Change in procedures;

B. Change in contact personnel; or

C. Changes due to regulatory requirements.

APPENDICES

Appendix 6 – A Current Monitoring and Reporting Program

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 Overview of Some Measures to Avoid Sewer Overflows

STATE OF CALIFORNIA
WATER RESOURCES CONTROL BOARD
ORDER NO. WQ 2013-0058-EXEC

AMENDING MONITORING AND REPORTING PROGRAM
FOR
STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR
SANITARY SEWER SYSTEMS

The State of California, Water Resources Control Board (hereafter State Water Board) finds:

1. The State Water Board is authorized to prescribe statewide general Waste Discharge Requirements (WDRs) for categories of discharges that involve the same or similar operations and the same or similar types of waste pursuant to Water Code section 13263(i).
2. Water Code section 13193 *et seq.* requires the Regional Water Quality Control Boards (Regional Water Boards) and the State Water Board (collectively, the Water Boards) to gather Sanitary Sewer Overflow (SSO) information and make this information available to the public, including but not limited to, SSO cause, estimated volume, location, date, time, duration, whether or not the SSO reached or may have reached waters of the state, response and corrective action taken, and an enrollee's contact information for each SSO event. An enrollee is defined as the public entity having legal authority over the operation and maintenance of, or capital improvements to, a sanitary sewer system greater than one mile in length.
3. Water Code section 13271, *et seq.* requires notification to the California Office of Emergency Services (Cal OES), formerly the California Emergency Management Agency, for certain unauthorized discharges, including SSOs.
4. On May 2, 2006, the State Water Board adopted Order 2006-0003-DWQ, "Statewide Waste Discharge Requirements for Sanitary Sewer Systems"[1] (hereafter SSS WDRs) to comply with Water Code section 13193 and to establish the framework for the statewide SSO Reduction Program.
5. Subsection G.2 of the SSS WDRs and the Monitoring and Reporting Program (MRP) provide that the Executive Director may modify the terms of the MRP at any time.
6. On February 20, 2008, the State Water Board Executive Director adopted a revised MRP for the SSS WDRs to rectify early notification deficiencies and ensure that first responders are notified in a timely manner of SSOs discharged into waters of the state.
7. When notified of an SSO that reaches a drainage channel or surface water of the state, Cal OES, pursuant to Water Code section 13271(a)(3), forwards the SSO notification information[2] to local government agencies and first responders including local public health officials and the applicable Regional Water Board. Receipt of notifications for a single SSO event from both the SSO reporter

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[1] Available for download at:
http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2006/wqo/wqo2006_0003.pdf

[2] Cal OES Hazardous Materials Spill Reports available Online at:
http://w3.calema.ca.gov/operational/malhaz.nsf/$defaultview and http://w3.calema.ca.gov/operational/malhaz.nsf

and Cal OES is duplicative. To address this, the SSO notification requirements added by the February 20, 2008 MRP revision are being removed in this MRP revision.

8. In the February 28, 2008 Memorandum of Agreement between the State Water Board and the California Water and Environment Association (CWEA), the State Water Board committed to re-designing the CIWQS[3] Online SSO Database to allow "event" based SSO reporting versus the original "location" based reporting. Revisions to this MRP and accompanying changes to the CIWQS Online SSO Database will implement this change by allowing for multiple SSO appearance points to be associated with each SSO event caused by a single asset failure.

9. Based on stakeholder input and Water Board staff experience implementing the SSO Reduction Program, SSO categories have been revised in this MRP. In the prior version of the MRP, SSOs have been categorized as Category 1 or Category 2. This MRP implements changes to SSO categories by adding a Category 3 SSO type. This change will improve data management to further assist Water Board staff with evaluation of high threat and low threat SSOs by placing them in unique categories (i.e., Category 1 and Category 3, respectively). This change will also assist enrollees in identifying SSOs that require Cal OES notification.

10. Based on over six years of implementation of the SSS WDRs, the State Water Board concludes that the February 20, 2008 MRP must be updated to better advance the SSO Reduction Program[4] objectives, assess compliance, and enforce the requirements of the SSS WDRs.

IT IS HEREBY ORDERED THAT:

Pursuant to the authority delegated by Water Code section 13267(f), Resolution 2002-0104, and Order 2006-0003-DWQ, the MRP for the SSS WDRs (Order 2006-0003-DWQ) is hereby amended as shown in Attachment A and shall be effective on September 9, 2013.

8/6/13
Date

Thomas Howard
Executive Director

[3] California Integrated Water Quality System (CIWQS) publicly available at http://www.waterboards.ca.gov/ciwqs/publicreports.shtml

[4] Statewide Sanitary Sewer Overflow Reduction Program information is available at: http://www.waterboards.ca.gov/water_issues/programs/sso/

ATTACHMENT A

STATE WATER RESOURCES CONTROL BOARD
ORDER NO. WQ 2013-0058-EXEC

AMENDING MONITORING AND REPORTING PROGRAM
FOR
STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR
SANITARY SEWER SYSTEMS

This Monitoring and Reporting Program (MRP) establishes monitoring, record keeping, reporting and public notification requirements for Order 2006-0003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems" (SSS WDRs). This MRP shall be effective from September 9, 2013 until it is rescinded. The Executive Director may make revisions to this MRP at any time. These revisions may include a reduction or increase in the monitoring and reporting requirements. All site specific records and data developed pursuant to the SSS WDRs and this MRP shall be complete, accurate, and justified by evidence maintained by the enrollee. Failure to comply with this MRP may subject an enrollee to civil liabilities of up to $5,000 a day per violation pursuant to Water Code section 13350; up to $1,000 a day per violation pursuant to Water Code section 13268; or referral to the Attorney General for judicial civil enforcement. The State Water Resources Control Board (State Water Board) reserves the right to take any further enforcement action authorized by law.

A. SUMMARY OF MRP REQUIREMENTS

Table 1 – Spill Categories and Definitions

CATEGORIES	DEFINITIONS [see Section A on page 5 of Order 2006-0003-DWQ, for Sanitary Sewer Overflow (SSO) definition]
CATEGORY 1	Discharges of untreated or partially treated wastewater of **any volume** resulting from an enrollee's sanitary sewer system failure or flow condition that: • Reach surface water and/or reach a drainage channel tributary to a surface water; or • Reach a Municipal Separate Storm Sewer System (MS4) and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond).
CATEGORY 2	Discharges of untreated or partially treated wastewater of **1,000 gallons or greater** resulting from an enrollee's sanitary sewer system failure or flow condition that **do not** reach surface water, a drainage channel, or a MS4 unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.
CATEGORY 3	All other discharges of untreated or partially treated wastewater resulting from an enrollee's sanitary sewer system failure or flow condition.
PRIVATE LATERAL SEWAGE DISCHARGE (PLSD)	Discharges of untreated or partially treated wastewater resulting from blockages or other problems **within a privately owned sewer lateral** connected to the enrollee's sanitary sewer system or from other private sewer assets. PLSDs that the enrollee becomes aware of may be voluntarily reported to the California Integrated Water Quality System (CIWQS) Online SSO Database.

Table 2 – Notification, Reporting, Monitoring, and Record Keeping Requirements

ELEMENT	REQUIREMENT	METHOD
NOTIFICATION **(see section B of MRP)**	• Within two hours of becoming aware of any Category 1 SSO **greater than or equal to 1,000 gallons discharged to surface water or spilled in a location where it probably will be discharged to surface water**, notify the California Office of Emergency Services (Cal OES) and obtain a notification control number.	Call Cal OES at: **(800) 852-7550**
REPORTING **(see section C of MRP)**	• Category 1 SSO: Submit draft report within three business days of becoming aware of the SSO and certify within 15 calendar days of SSO end date. • Category 2 SSO: Submit draft report within 3 business days of becoming aware of the SSO and certify within 15 calendar days of the SSO end date. • Category 3 SSO: Submit certified report within 30 calendar days of the end of month in which SSO the occurred. • SSO Technical Report: Submit within 45 calendar days after the end date of any Category 1 SSO in which 50,000 gallons or greater are spilled to surface waters. • "No Spill" Certification: Certify that no SSOs occurred within 30 calendar days of the end of the month or, if reporting quarterly, the quarter in which no SSOs occurred. • Collection System Questionnaire: Update and certify every 12 months.	Enter data into the CIWQS Online SSO Database (http://ciwqs.waterboards.ca.gov/), certified by enrollee's Legally Responsible Official(s).
WATER QUALITY MONITORING **(see section D of MRP)**	• Conduct water quality sampling **within 48 hours** after initial SSO notification for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.	Water quality results are required to be uploaded into CIWQS for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters.
RECORD KEEPING **(see section E of MRP)**	• SSO event records. • Records documenting Sanitary Sewer Management Plan (SSMP) implementation and changes/updates to the SSMP. • Records to document Water Quality Monitoring for SSOs of 50,000 gallons or greater spilled to surface waters. • Collection system telemetry records if relied upon to document and/or estimate SSO Volume.	Self-maintained records shall be available during inspections or upon request.

B. NOTIFICATION REQUIREMENTS

Although Regional Water Quality Control Boards (Regional Water Boards) and the State Water Board (collectively, the Water Boards) staff do not have duties as first responders, this MRP is an appropriate mechanism to ensure that the agencies that have first responder duties are notified in a timely manner in order to protect public health and beneficial uses.

1. For any Category 1 SSO greater than or equal to 1,000 gallons that results in a discharge to a surface water or spilled in a location where it probably will be discharged to surface water, either directly or by way of a drainage channel or MS4, the enrollee shall, as soon as possible, but not later than two (2) hours after (A) the enrollee has knowledge of the discharge, (B) notification is possible, and (C) notification can be provided without substantially impeding cleanup or other emergency measures, notify the Cal OES and obtain a notification control number.

2. To satisfy notification requirements for each applicable SSO, the enrollee shall provide the information requested by Cal OES before receiving a control number. Spill information requested by Cal OES may include:

    i. Name of person notifying Cal OES and direct return phone number.
    ii. Estimated SSO volume discharged (gallons).
    iii. If ongoing, estimated SSO discharge rate (gallons per minute).
    iv. SSO Incident Description:
        a. Brief narrative.
        b. On-scene point of contact for additional information (name and cell phone number).
        c. Date and time enrollee became aware of the SSO.
        d. Name of sanitary sewer system agency causing the SSO.
        e. SSO cause (if known).
    v. Indication of whether the SSO has been contained.
    vi. Indication of whether surface water is impacted.
    vii. Name of surface water impacted by the SSO, if applicable.
    viii. Indication of whether a drinking water supply is or may be impacted by the SSO.
    ix. Any other known SSO impacts.
    x. SSO incident location (address, city, state, and zip code).

3. Following the initial notification to Cal OES and until such time that an enrollee certifies the SSO report in the CIWQS Online SSO Database, the enrollee shall provide updates to Cal OES regarding substantial changes to the estimated volume of untreated or partially treated sewage discharged and any substantial change(s) to known impact(s).

4. PLSDs: The enrollee is strongly encouraged to notify Cal OES of discharges greater than or equal to 1,000 gallons of untreated or partially treated wastewater that result or may result in a discharge to surface water resulting from failures or flow conditions within a privately owned sewer lateral or from other private sewer asset(s) if the enrollee becomes aware of the PLSD.

C. REPORTING REQUIREMENTS

1. **CIWQS Online SSO Database Account:** All enrollees shall obtain a CIWQS Online SSO Database account and receive a "Username" and "Password" by registering through CIWQS. These accounts allow controlled and secure entry into the CIWQS Online SSO Database.

2. **SSO Mandatory Reporting Information:** For reporting purposes, if one SSO event results in multiple appearance points in a sewer system asset, the enrollee shall complete one SSO report in the CIWQS Online SSO Database which includes the GPS coordinates for the location of the SSO appearance point closest to the failure point, blockage or location of the flow condition that caused the SSO, and provide descriptions of the locations of all other discharge points associated with the SSO event.

3. **SSO Categories**

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

      a. Reach surface water and/or reach a drainage channel tributary to a surface water; or

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

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

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

4. **Sanitary Sewer Overflow Reporting to CIWQS - Timeframes**

   i. **Category 1 and Category 2 SSOs** – All SSOs that meet the above criteria for Category 1 or Category 2 SSOs shall be reported to the CIWQS Online SSO Database:

      a. Draft reports for Category 1 and Category 2 SSOs shall be submitted to the CIWQS Online SSO Database within three (3) business days of the enrollee becoming aware of the SSO. Minimum information that shall be reported in a draft Category 1 SSO report shall include all information identified in section 8.i.a. below. Minimum information that shall be reported in a Category 2 SSO draft report shall include all information identified in section 8.i.c below.

      b. A final Category 1 or Category 2 SSO report shall be certified through the CIWQS Online SSO Database within 15 calendar days of the end date of the SSO. Minimum information that shall be certified in the final Category 1 SSO report shall include all information identified in section 8.i.b below. Minimum information that shall be certified in a final Category 2 SSO report shall include all information identified in section 8.i.d below.

ii. **Category 3 SSOs** – All SSOs that meet the above criteria for Category 3 SSOs shall be reported to the CIWQS Online SSO Database and certified within 30 calendar days after the end of the calendar month in which the SSO occurs (e.g., all Category 3 SSOs occurring in the month of February shall be entered into the database and certified by March 30). Minimum information that shall be certified in a final Category 3 SSO report shall include all information identified in section 8.i.e below.

iii. **"No Spill" Certification** – If there are no SSOs during the calendar month, the enrollee shall either 1) certify, within 30 calendar days after the end of each calendar month, a "No Spill" certification statement in the CIWQS Online SSO Database certifying that there were no SSOs for the designated month, or 2) certify, quarterly within 30 calendar days after the end of each quarter, "No Spill" certification statements in the CIWQS Online SSO Database certifying that there were no SSOs for each month in the quarter being reported on. For quarterly reporting, the quarters are Q1 - January/ February/ March, Q2 - April/May/June, Q3 - July/August/September, and Q4 - October/November/December.

If there are no SSOs during a calendar month but the enrollee reported a PLSD, the enrollee shall still certify a "No Spill" certification statement for that month.

iv. **Amended SSO Reports** – The enrollee may update or add additional information to a certified SSO report within 120 calendar days after the SSO end date by amending the report or by adding an attachment to the SSO report in the CIWQS Online SSO Database. SSO reports certified in the CIWQS Online SSO Database prior to the adoption date of this MRP may only be amended up to 120 days after the effective date of this MRP. After 120 days, the enrollee may contact the SSO Program Manager to request to amend an SSO report if the enrollee also submits justification for why the additional information was not available prior to the end of the 120 days.

5. **SSO Technical Report**

The enrollee shall submit an SSO Technical Report in the CIWQS Online SSO Database within 45 calendar days of the SSO end date for any SSO in which 50,000 gallons or greater are spilled to surface waters. This report, which does not preclude the Water Boards from requiring more detailed analyses if requested, shall include at a minimum, the following:

i. **Causes and Circumstances of the SSO:**

a. Complete and detailed explanation of how and when the SSO was discovered.

b. Diagram showing the SSO failure point, appearance point(s), and final destination(s).

c. Detailed description of the methodology employed and available data used to calculate the volume of the SSO and, if applicable, the SSO volume recovered.

d. Detailed description of the cause(s) of the SSO.

e. Copies of original field crew records used to document the SSO.

f. Historical maintenance records for the failure location.

ii. **Enrollee's Response to SSO:**

a. Chronological narrative description of all actions taken by enrollee to terminate the spill.

b. Explanation of how the SSMP Overflow Emergency Response plan was implemented to respond to and mitigate the SSO.

c. Final corrective action(s) completed and/or planned to be completed, including a schedule for actions not yet completed.

iii. **Water Quality Monitoring:**

a. Description of all water quality sampling activities conducted including analytical results and evaluation of the results.

b. Detailed location map illustrating all water quality sampling points.

6. **PLSDs**

Discharges of untreated or partially treated wastewater resulting from blockages or other problems within a privately owned sewer lateral connected to the enrollee's sanitary sewer system or from other private sanitary sewer system assets may be voluntarily reported to the CIWQS Online SSO Database.

i. The enrollee is also encouraged to provide notification to Cal OES per section B above when a PLSD greater than or equal to 1,000 gallons has or may result in a discharge to surface water. For any PLSD greater than or equal to 1,000 gallons regardless of the spill destination, the enrollee is also encouraged to file a spill report as required by Health and Safety Code section 5410 et. seq. and Water Code section 13271, or notify the responsible party that notification and reporting should be completed as specified above and required by State law.

ii. If a PLSD is recorded in the CIWQS Online SSO Database, the enrollee must identify the sewage discharge as occurring and caused by a private sanitary sewer system asset and should identify a responsible party (other than the enrollee), if known. Certification of PLSD reports by enrollees is not required.

7. **CIWQS Online SSO Database Unavailability**

In the event that the CIWQS Online SSO Database is not available, the enrollee must fax or e-mail all required information to the appropriate Regional Water Board office in accordance with the time schedules identified herein. In such event, the enrollee must also enter all required information into the CIWQS Online SSO Database when the database becomes available.

8. **Mandatory Information to be Included in CIWQS Online SSO Reporting**

All enrollees shall obtain a CIWQS Online SSO Database account and receive a "Username" and "Password" by registering through CIWQS which can be reached at CIWQS@waterboards.ca.gov or by calling (866) 792-4977, M-F, 8 A.M. to 5 P.M. These accounts will allow controlled and secure entry into the CIWQS Online SSO Database. Additionally, within thirty (30) days of initial enrollment and prior to recording SSOs into the CIWQS Online SSO Database, all enrollees must complete a Collection System Questionnaire (Questionnaire). The Questionnaire shall be updated at least once every 12 months.

i. **SSO Reports**

At a minimum, the following mandatory information shall be reported prior to finalizing and certifying an SSO report for each category of SSO:

a. **Draft Category 1 SSOs**: At a minimum, the following mandatory information shall be reported for a draft Category 1 SSO report:

1. SSO Contact Information: Name and telephone number of enrollee contact person who can answer specific questions about the SSO being reported.
2. SSO Location Name.
3. Location of the overflow event (SSO) by entering GPS coordinates. If a single overflow event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the SSO appearance point explanation field.
4. Whether or not the SSO reached surface water, a drainage channel, or entered and was discharged from a drainage structure.
5. Whether or not the SSO reached a municipal separate storm drain system.
6. Whether or not the total SSO volume that reached a municipal separate storm drain system was fully recovered.
7. Estimate of the SSO volume, inclusive of all discharge point(s).
8. Estimate of the SSO volume that reached surface water, a drainage channel, or was not recovered from a storm drain.
9. Estimate of the SSO volume recovered (if applicable).
10. Number of SSO appearance point(s).
11. Description and location of SSO appearance point(s). If a single sanitary sewer system failure results in multiple SSO appearance points, each appearance point must be described.
12. SSO start date and time.
13. Date and time the enrollee was notified of, or self-discovered, the SSO.
14. Estimated operator arrival time.
15. For spills greater than or equal to 1,000 gallons, the date and time Cal OES was called.
16. For spills greater than or equal to 1,000 gallons, the Cal OES control number.

b. **Certified Category 1 SSOs**: At a minimum, the following mandatory information shall be reported for a certified Category 1 SSO report, in addition to all fields in section 8.i.a :

1. Description of SSO destination(s).
2. SSO end date and time.
3. SSO causes (mainline blockage, roots, etc.).
4. SSO failure point (main, lateral, etc.).
5. Whether or not the spill was associated with a storm event.
6. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the overflow; and a schedule of major milestones for those steps.
7. Description of spill response activities.
8. Spill response completion date.
9. Whether or not there is an ongoing investigation, the reasons for the investigation and the expected date of completion.

10. Whether or not a beach closure occurred or may have occurred as a result of the SSO.
11. Whether or not health warnings were posted as a result of the SSO.
12. Name of beach(es) closed and/or impacted. If no beach was impacted, NA shall be selected.
13. Name of surface water(s) impacted.
14. If water quality samples were collected, identify parameters the water quality samples were analyzed for. If no samples were taken, NA shall be selected.
15. If water quality samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA shall be selected.
16. Description of methodology(ies) and type of data relied upon for estimations of the SSO volume discharged and recovered.
17. SSO Certification: Upon SSO Certification, the CIWQS Online SSO Database will issue a final SSO identification (ID) number.

c. **Draft Category 2 SSOs**: At a minimum, the following mandatory information shall be reported for a draft Category 2 SSO report:

1. Items 1-14 in section 8.i.a above for Draft Category 1 SSO.

d. **Certified Category 2 SSOs**: At a minimum, the following mandatory information shall be reported for a certified Category 2 SSO report:

1. Items 1-14 in section 8.i.a above for Draft Category 1 SSO and Items 1-9, and 17 in section 8.i.b above for Certified Category 1 SSO.

e. **Certified Category 3 SSOs**: At a minimum, the following mandatory information shall be reported for a certified Category 3 SSO report:

1. Items 1-14 in section 8.i.a above for Draft Category 1 SSO and Items 1-5, and 17 in section 8.i.b above for Certified Category 1 SSO.

ii. **Reporting SSOs to Other Regulatory Agencies**

These reporting requirements do not preclude an enrollee from reporting SSOs to other regulatory agencies pursuant to state law. In addition, these reporting requirements do not replace other Regional Water Board notification and reporting requirements for SSOs.

iii. **Collection System Questionnaire**

The required Questionnaire (see subsection G of the SSS WDRs) provides the Water Boards with site-specific information related to the enrollee's sanitary sewer system. The enrollee shall complete and certify the Questionnaire at least every 12 months to facilitate program implementation, compliance assessment, and enforcement response.

iv. **SSMP Availability**

The enrollee shall provide the publicly available internet web site address to the CIWQS Online SSO Database where a downloadable copy of the enrollee's approved SSMP, critical supporting documents referenced in the SSMP, and proof of local governing board approval of the SSMP is posted. If all of the SSMP documentation listed in this subsection is not publicly available on the Internet, the enrollee shall comply with the following procedure:

a. Submit an **electronic** copy of the enrollee's approved SSMP, critical supporting documents referenced in the SSMP, and proof of local governing board approval of the SSMP to the State Water Board, within 30 days of that approval and within 30 days of any subsequent SSMP re-certifications, to the following mailing address:

State Water Resources Control Board
Division of Water Quality
Attn: SSO Program Manager
1001 I Street, 15th Floor, Sacramento, CA 95814

D. WATER QUALITY MONITORING REQUIREMENTS:

To comply with subsection D.7(v) of the SSS WDRs, the enrollee shall develop and implement an SSO Water Quality Monitoring Program to assess impacts from SSOs to surface waters in which 50,000 gallons or greater are spilled to surface waters. The SSO Water Quality Monitoring Program, shall, at a minimum:

1. Contain protocols for water quality monitoring.

2. Account for spill travel time in the surface water and scenarios where monitoring may not be possible (e.g. safety, access restrictions, etc.).

3. Require water quality analyses for ammonia and bacterial indicators to be performed by an accredited or certified laboratory.

4. Require monitoring instruments and devices used to implement the SSO Water Quality Monitoring Program to be properly maintained and calibrated, including any records to document maintenance and calibration, as necessary, to ensure their continued accuracy.

5. Within 48 hours of the enrollee becoming aware of the SSO, require water quality sampling for, at a minimum, the following constituents:
   i. Ammonia
   ii. Appropriate Bacterial indicator(s) per the applicable Basin Plan water quality objective or Regional Board direction which may include total and fecal coliform, enterococcus, and e-coli.

E. RECORD KEEPING REQUIREMENTS:

The following records shall be maintained by the enrollee for a minimum of five (5) years and shall be made available for review by the Water Boards during an onsite inspection or through an information request:

1. General Records: The enrollee shall maintain records to document compliance with all provisions of the SSS WDRs and this MRP for each sanitary sewer system owned including any required records generated by an enrollee's sanitary sewer system contractor(s).

2. SSO Records: The enrollee shall maintain records for each SSO event, including but not limited to:
   i. Complaint records documenting how the enrollee responded to all notifications of possible or actual SSOs, both during and after business hours, including complaints that do not

result in SSOs. Each complaint record shall, at a minimum, include the following information:

a. Date, time, and method of notification.

b. Date and time the complainant or informant first noticed the SSO.

c. Narrative description of the complaint, including any information the caller can provide regarding whether or not the complainant or informant reporting the potential SSO knows if the SSO has reached surface waters, drainage channels or storm drains.

d. Follow-up return contact information for complainant or informant for each complaint received, if not reported anonymously.

e. Final resolution of the complaint.

ii. Records documenting steps and/or remedial actions undertaken by enrollee, using all available information, to comply with section D.7 of the SSS WDRs.

iii. Records documenting how all estimate(s) of volume(s) discharged and, if applicable, volume(s) recovered were calculated.

3. Records documenting all changes made to the SSMP since its last certification indicating when a subsection(s) of the SSMP was changed and/or updated and who authorized the change or update. These records shall be attached to the SSMP.

4. Electronic monitoring records relied upon for documenting SSO events and/or estimating the SSO volume discharged, including, but not limited to records from:

i. Supervisory Control and Data Acquisition (SCADA) systems

ii. Alarm system(s)

iii. Flow monitoring device(s) or other instrument(s) used to estimate wastewater levels, flow rates and/or volumes.

F. CERTIFICATION

1. All information required to be reported into the CIWQS Online SSO Database shall be certified by a person designated as described in subsection J of the SSS WDRs. This designated person is also known as a Legally Responsible Official (LRO). An enrollee may have more than one LRO.

2. Any designated person (i.e. an LRO) shall be registered with the State Water Board to certify reports in accordance with the CIWQS protocols for reporting.

3. Data Submitter (DS): Any enrollee employee or contractor may enter draft data into the CIWQS Online SSO Database on behalf of the enrollee if authorized by the LRO and registered with the State Water Board. However, only LROs may certify reports in CIWQS.

4. The enrollee shall maintain continuous coverage by an LRO. Any change of a registered LRO or DS (e.g., retired staff), including deactivation or a change to the LRO's or DS's contact information, shall be submitted by the enrollee to the State Water Board within 30 days of the change by calling (866) 792-4977 or e-mailing help@ciwqs.waterboards.ca.gov.

5. A registered designated person (i.e., an LRO) shall certify all required reports under penalty of perjury laws of the state as stated in the CIWQS Online SSO Database at the time of certification.

CERTIFICATION

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of an order amended by the Executive Director of the State Water Resources Control Board.

7/30/13
Date

Jeanine Townsend
Clerk to the Board

APPENDIX 6 - B
SANITARY SEWER OVERFLOW REPORT FORM

City of Lompoc Sanitary Sewer Overflow Report Form

[1] Information **required** for Category 1 and 3 [2] Information **required** for Category 2
** Information **required** for Category 1 or 3 if estimated spill volume ≥ 1000 gallons and spill reached surface water or STORM 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] 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: _____

APPENDIX 6 - B
SANITARY SEWER OVERFLOW REPORT FORM

[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] Water quality samples analyzed for: □ dissolved oxygen □ other chemical indicator(s) (specify):
_____
□ biological indicator(s) (specify): _____
□ 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] Spill corrective action 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: _____

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): _____

Regional Water Quality Control Board Notified Date / Time: _____

Other Agency Notified: _____

Was any of this spill report information submitted via fax to the Regional Water Quality Control Board? □ Yes □ No

Date and time spill report information was submitted via fax to the Regional Water Quality Control Board (required if "yes," above):

APPENDIX 6 - B
SANITARY SEWER OVERFLOW REPORT FORM

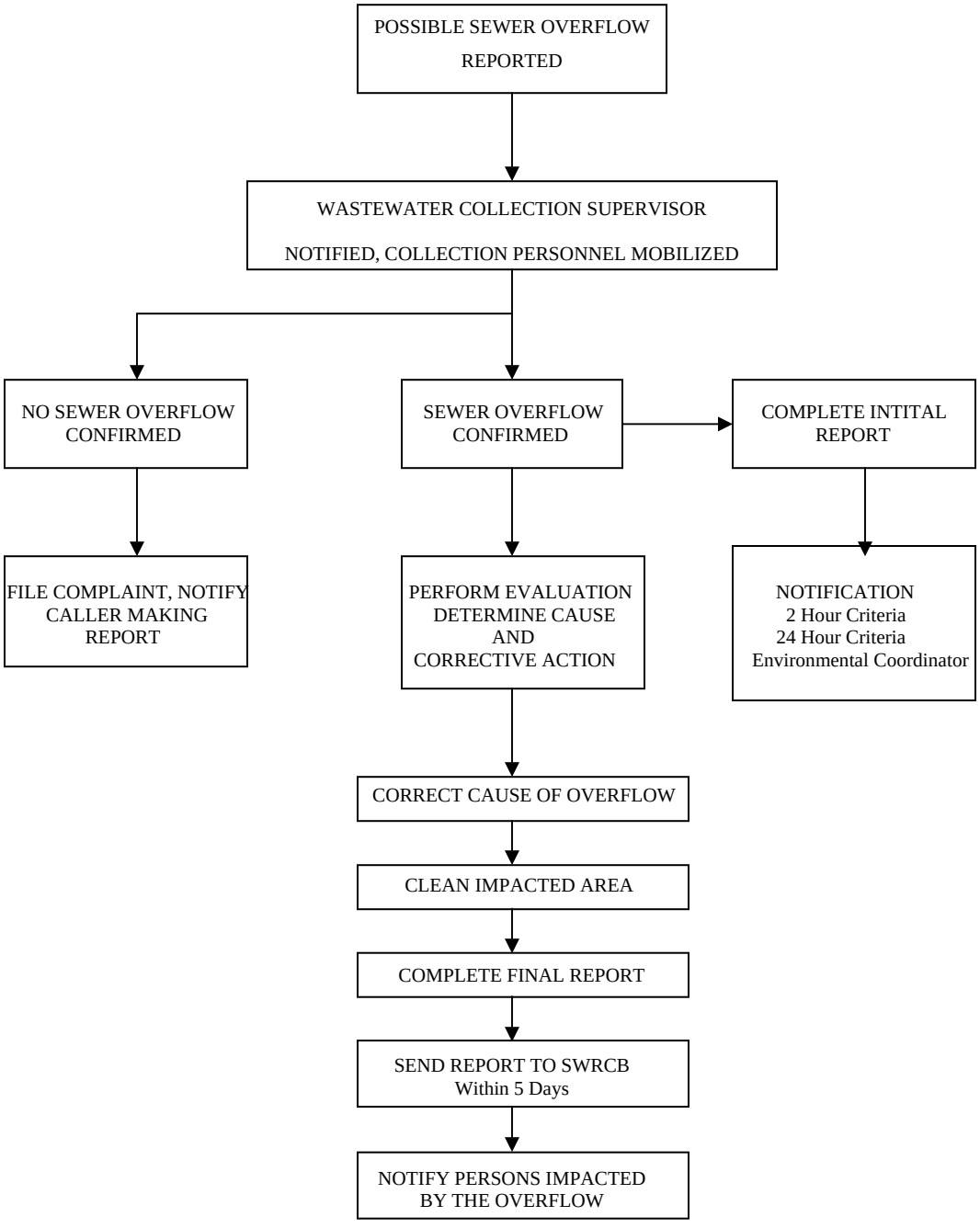
Form Completion

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 or surface water, the sewer Collection Supervisor or designee shall notify the State Water Resources Control Board contact person and Envinomental Coordinator orally within two 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

EMERGENCY NUMBERS

1. Administration…….(805) 875-8212

2. Airport…….(805) 875-8268

3. Building……...(805) 875-8220

4. Cal-Trans Representative, David Orsua
   Office……..(805) 688-6649
   Cell……..(805) 459-7580
   Emergency Closure for
   Traffic Lanes……...(805) 549-3212

5. 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 #1175),** Stonebrook (**Gate # 1007**)
   Villa De Casitas, Villa De Los Flores
   Walnut Meadows, Winnchester Village

6. City Attorney…….…..(805) 875-8251

7. City Clerk……..…..(805) 875-8242

8. Community Development……...(805) 875-8279

   A. Crown Laurel ---- (Key sign Twice) ----------(1425)

9. Level 3 Communications

   Fiber Line Office…….(877) 453-8353
   (Choose “Transport & Infrastructure”)

   Fiber Hotline……(800) 336-9193
   6AM – 8PM

10. Economic Development……..……(805) 875-8232

11. Electric…….(805) 875-8011 / (805) 875-8012

12. Engineering……..…(805) 875-8269

    A. Enviromental Coordinator ---------- (805) 875-8275)

13. Santa Barbara County Environmental Health.….(805) 681-4944

APPENDIX 6 – E

EMERGENCY NUMBERS

14. Fire……...(805) 736-4513 / (805) 875-8050

15. Human Resources……(805) 875-8205

16. Information Systems……(805) 875-8290

17. Landfill……..…(805) 736-9042

18. Library……..(805) 736-3477

19. 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

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

21. Mission Hills Community Services District

District Cell Phone – On Call……..(805) 588-2833
District Telephone……(805) 733-1945
Field Supervisor, Dan Finney - home……..(805) 736-4653
General Manager, Mike Riley - cell…….(805) 588-5176
Home……..(805) 733-3853

22. Parks & Recreation……...(805) 875-8100

23. Planning……(805) 875-8288

24. Police……...(805) 736-2341 / (805) 875-8102

25. Public Works……...(805) 875-8269

26. Purchasing……(805) 875-8001

27. Pretreatment

Water Resources Protection Technician…….(805) 875-8403 / (805) 315-7117
Chemist……(805) 875-8415 / (805) 455-6078

28. Regional Water Quality Control Board……..….(805) 549-3688

APPENDIX 6 – E

EMERGENCY NUMBERS

Fax……(805) 788-3584

29. Solid Waste……..(805) 875-8024

30. State Office Of Emergency Services..……..(916) 845-8510

Fax……(916) 845-8511

31. Stormwater……...(805) 875-8275

32. Streets……(805) 875-8021

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

34. Trees…….(805) 875-8034

35. UTI (for Verizon)

After hours & weekends…….. ……(805) 451-1198
Local Customer Operations……..(805) 733-8329

36. Union Pacific R & R (Fiber Optic Communications Line)

Signals or Crossings……..1 (800) 848-8715
24 hr Emergency……1 (800) 892-1283

37. Utility Connections (City Treasurer)……(805) 875-8246

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

39. Water…….(805) 736-1617

40. 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
Wastewater Collection Worker …….……(805) 315-7096 / (805) 736-4458

41. Woodstone, 401 West Pine Avenue (Gate #3675)….(805) 735-3675

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.

SSMP
Element 7

7.0 Fats, Oils and Grease (FOG) Control Program

- Requirement: Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed the Enrollee must provide justification as to why it is not needed. If the FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall include following as appropriate:

a. An implementation plan and schedule for public education outreach program that promotes proper disposal of FOG.

b. A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area.

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

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.

g. Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (f) above.

Element 7: Fats, Oils, and Grease (FOG) Control Program

This SSMP element discusses the Fats, Oils, and Grease (FOG) Control Program the City of Lompoc Wastewater Division has established 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 1. This section fulfills the FOG Control Program requirement of the SWRCB SSMP Element 7 requirements.

7.1 Characterizing FOG Sources

FOG is characterized by "hot spots" or trouble areas containing grease, roots, or defects within the collection system. "Hot spots" are typically found in areas with restaurants, heavy foliage, establishments built between 1916 – 1950 with clay lines, and apartment complexes. A closed circuit television (CCTV) deployed in the collection system identifies "hot spots" within the City. However, in rare cases "hot spots" have been identified by sanitary sewer overflows (SSOs) due to FOG.

Locations with "hot spots" are flushed with greater frequency than other lines to reduce odor and greasy build-up in the lines. Lines with "hot spots" are flushed at intervals of 3, 4, or 6 months from the last line flushing and are visually examined weekly. Lines with normal conditions or no problems are flushed at intervals of 12 or 36 months.

Currently, "hot spots" and FOG related issues are recorded into the Alpha Program database. The database contains all SSOs, FOG related blockages, sewer repairs, maintenance, cleaning frequencies, site locations, and suspected cause of problems. The database does not incorporate GIS data but may in the near future with the CCTV.

7.2 Regulatory Requirements

Regulatory requirements to control FOG discharges are identified in the City of Lompoc Wastewater Ordinance, Chapter 13, Article 2:

Section 13.16.160	Permits Required
Section 13.16.170	Application and Fees
Section 13.16.180	Permit Terms and Conditions
Section 13.16.190	Modification of Permit Terms and Conditions
Section 13.16.200	Permit Transfer
Section 13.16.210	Permit Duration
Section 13.16.220	Other Requirements Unaffected
Section 13.16.230	Revocation of Permit
Section 13.16.240	General Discharge Prohibitions
Section 13.16.250	Specific Discharge Prohibitions
Section 13.16.260	Hazardous Waste
Section 13.16.270	Trucked or Hauled Waste

Section 13.16.280	Medical Facility Wastes
Section 13.16.290	Radioactive Wastes
Section 13.16.300	Unpolluted Water
Section 13.16.310	Swimming Pool Waste
Section 13.16.320	Water Softening Waste
Section13.16.330	Excessive Discharge
Section 13.16.340	Limitations of Discharge
Section 13.16.350	Pretreatment in General
Section 13.16.360	Equalized Discharges
Section 13.16.370	Traps/Interceptors
Section 13.16.380	Accidental Discharge
Section 13.16.390	Monitoring and Metering Facilities
Section 13.16.410	Fees and Charges
Section 13.16.430	Harmful Contributions
Section 13.16.440	Publishing Lists of IU in Significant Noncompliance
Section 13.16.450	Enforcement Orders
Section 13.16.460	Affirmative Defense – Upsets
Section 13.16.470	Legal Action

7.3 Program Administration

The City may apply and enforce wastewater fees to Users for reimbursement costs, monitoring and inspecting on behalf of the User, reviewing accidental discharges procedures and construction, permit applications, filing appeal, non-compliance, consistent removal of pollutants, sewer connection, and other fees deemed necessary by the City to implement the Wastewater Ordinance.

7.4 FOG Control Program

The City of Lompoc has determined a FOG Control Program is necessary to prevent FOG related blockages fulfilling the SSMP requirement. This section discusses the elements required to implement a successful FOG Control Program.

Acceptable FOG Handling and Disposal Practices:

FOG control devices. The Wastewater Ordinance requires all FSEs to install an approved FOG discharge control device. All devices shall be sized, installed, configured, and connected according to the most recent Uniform Plumbing Code (UPC) and approved by the Wastewater Division Pretreatment personnel, and shall be maintained continuously in satisfactory and effective operation by the FSE. (LMC 13.16.370)

Best Management Practices (BMPs). All FSEs wastewater discharge permits contain restaurant BMPs to reduce the amount of grease discharged into the sanitary sewer. FSE BMPs include, but are not limited to, scraping plates prior to washing, using baskets in sink drains, and dry clean up for spills. Additional BMPs include

educational reminders posted at the sinks with BMP requirements of general or specific equipment recommendations.

Grease Storage for Recycling. 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 tight-fitting lid, and reside in a secondary containment container for spills. The container should be stored away from floor drains. For a partial list of grease rendering companies currently serving the Lompoc area, see Appendix C (The City does not endorse or recommend any of the grease rendering companies).

Tracking and Monitoring FOG:

The City's Pretreatment Program uses an office database management system (Microsoft Access®) to track and monitor FSEs and FOG. The database contains all Users with a wastewater discharge permit, including FSE. Information stored in the database includes: general permit information (e.g., name of party permit is issued to, FSE address, phone number, FSE history, etc.), inspections, grease haulers and renders 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.

The City's Collection personnel use a database called Alpha Program database to track FOG. This database tracks all SSOs, FOG related blockages, sewer repairs, maintenance, cleaning frequencies, site locations, and suspected cause of problems. The database does not currently incorporate GIS data but may in the near future with the CCTV.

Program Budget:

The FOG Control Program may require an estimated 65% of expenditures from Collections, 60% from Pretreatment, and 10% from the Administrative budget. Each fiscal year shall reflect the budget changes consequently.

It is expected the expenditures spent on the FOG Program to change after it is implemented. The City may spend more of the budget in sewer repairs and educational materials at the start of the program compared to later maintenance of the Program.

7.5 Outreach

Educating owners and managers of FSEs is an important and effective way to reduce FOG from entering into the sanitary sewer. The City produces 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. FSEs may also find educational materials on the City's webpage (www.cityoflompoc.com). Additionally, the City offers educational seminars for the FSEs owners and managers.

Brochures and posters are delivered during inspections and offered to all FSEs. The inspector may also take the opportunity during the inspection to educate the owner or manager of additional steps to be taken to optimize the FOG reduction.
FSEs are the main target to reduce FOG in the sewer, however residential areas can contribute to FOG blockages. The City mails FOG brochures to residents to combine the FOG reduction efforts throughout the City. When a residential area has been identified as large FOG contributor, brochures are mailed or hand-delivered to the area immediately.

7.6 Food Service Establishment Inspections

FSEs will be inspected regularly to ensure compliance with regulatory requirements. FSEs 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, shall be inspected more frequently, but not less than once every 24 months.

Inspection Equipment:

All safety precautions shall be taken during each inspection. All inspectors shall have personal protective equipment (PPE) consisting of safety glasses, vest, 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 hydromechanical 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, latex gloves, 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:

Inspector shall first announce their arrival and inspect the grease device manifests/logs. Inspections activities shall also include inspection of the kitchen and all its grease removal devices, posted signs, and outside grease removal devices. The inspection activities may also include interviewing the staff and providing educational materials.

Sampling Procedures:

Appropriate measurement of oil and grease shall be applied to determine performance, issues, or compliance.

Follow-up Procedures:

When a FSE is found to be in non-compliance a notice to comply or a notice of violation is issued immediately depending on the history and severity of the FOG. In most cases FSEs will receive a notice to comply within a specific time frame. The inspector informs the FSE an inspection will occur soon to verify pumping/cleaning has been performed and equipment is operating in conformity with the permit. 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.

SSMP
Element 8

8.0 System Evaluation and Capacity Assurance Plan

- **Requirement: The Enrollee shall prepare and implement a capital plan that will provide hydraulic capacity of key sanitary sewer system elements for dry weather, peak flow conditions and as well as the appropriate design storm or wet weather event. At a minimum the plan must include:**

  a. Evaluation: Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows, including flows from SSOs that escape the system, associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events.

  b. Design Criteria: Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria.

  c. Capacity Enhancement Measures: The steps needed to establish a short and long term CIP to address identified hydraulic deficiencies including prioritization, alternatives analysis and schedules. The CIP may include increases in pipe size, I/I reduction, increases/redundancy in plumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.

  d. Schedule: The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a) and (c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in section D. 14.

Element 8.0: System Evaluation and Capacity Assurance Plan

8.1 Overall Assessment

The City of Lompoc collection system is largely built-out, with few areas open for significant 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.

Use of closed-circuit television (CCTV) as an inspection tool has identified City sewer mains that require the most attention. Most of the issues are a result of sewer mains 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 ca. 1916. Root intrusion is also an issue in some areas. In all, approximately 11.8 miles of City sewer mains are currently identified as being in need of rehabilitation or replacement.

Current installation criteria offer considerable improvements over the past practice. Fewer joints are possible with durable PVC pipe, and use of designed bedding enhances stability.

8.2 Current Activities

Lompoc City Council approved budgets every two years. Projects in the current budget (FY13-15) include engineering and upsized replacement of City sewer mains at East Ocean Avenue from 7th Street to A Street, at V Street crossing West Ocean Avenue, East Locust and East Fir Avenues from South C Street to South D/E Alley, South D/E Alley from East Fir Avenue to East Cypress Avenue.

As the City of Lompoc is economically challenged, it is important to fund projects over time in a sustainable way, making sound infrastructure investments for the future. To improve the overall financial health of the Wastewater Division, a series of five successive annual rate increases was approved by Lompoc City Council in August 2013. The additional revenue generated will help fund future City sewer main projects.

SSMP
Element 9

9.0 Monitoring, Measurement and Program Modifications

- **Requirement: The Enrollee shall**

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

  b. Monitor the implementation and where appropriate measure the effectiveness of each element of the SSMP.

  c. Assess the success of the preventive maintenance program.

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

  e. Identify and illustrate SSO trends including frequency location and volume.

Element 9.0: Collection System 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 is trained on use of this program with administration and quality control provided the Information Systems/Geographical Systems (IS/CIS) administrator. by

Sewer crew daily records provide information that assists staff analyze 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 preventative maintenance (citywide district 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. Refer to Appendix A for examples.

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 district-wide condition assessment projects. Closed-circuit television (CCTV) is used to identify problems within sewer pipe 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 entered into the Admins program. Reports are created to analyze CCTV data and condition scores. Refer to Appendix B for

examples. 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 takes 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 represented in the table below.

Performance Indicator	2005-2007 annual average*	2013
# Sewer Odor Complaints	11	7
# Sewer Mainline Blockages	24	4
# Sewer Emergency Calls	2	12**
Emergency Response within 2 Hours (%)	98	100
# Sewer Mainlines Repaired	4	1

* for comparison purposes
** definition of an “emergency” has been made more conservative, and now includes private materials

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

9.3 SANITARY SEWER OVERFLOWS ON CITY LINES

LCWD tracks detailed information pertaining to sanitary sewer collection system overflows (SSOs).

SSOs have become very infrequent on the City sewer mains. From the date of the current revision, the last SSO was a Category 3 on September 18, 2012, of approximately 50 gallons.

9.4 CAPITAL IMPROVEMENT PROJECTS

LCWD capital improvement program (CIP) for sewer rehabilitation and replacement consists of individual CIP 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 the Citywide CCTV Study and the current Wet Weather Capacity Analysis.

Capital Improvement Projects Status

RECENT CITYWIDE SANITARY SEWER REHABILITATION/REPLACEMENT PROJECTS	STATUS (as of October 2014)
Hickory Avenue	Complete 2011
South C Street	Complete 2013
North H Street Shopping Center	Complete 2013
Ocean Avenue	In Engineering
South C/D Alley	In Engineering

SEWER I&I PROJECTS	2014 STATUS
Citywide Sanitary Sewer I&I Reduction	ON-GOING
Lompoc I&I Removal	ON-GOING

SSMP
Element 10

10.0 SSMP Program Audits

- **Requirement:**

a. As part of the SSMP the Enrollee shall conduct periodic internal audits appropriate to size of the system and the number of SSOs. At a minimum these audits must occur every two (2) years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the Enrollees compliance with the SSMP requirements identified in this subsection (D.l3) including identification of any deficiencies in the SSMP and steps to correct them.

Element 10.0: SSMP Program Audits

The Program Audits section of this SSMP serves to record the evolution of the SSMP Elements. Since the inception of the SSMP program, data has been analyzed and discussions take place, all with the same focus in mind – how to correct identified program deficiencies and continually improve program performance.

The following sections outline fiscal year accomplishments and identified potential future program improvements for each of the elements of the SSMP.

10.1 Element 1.0 Collection System Management Goals

2012-present Accomplishments:

The collective system management goals of reducing SSO frequency and impacts have been largely realized, with only one relatively small SSO reported in 2012 for the City's collection system. Specific objectives were developed and adopted both into the most recent FY13-15 budget plan as well as the SSMP that focus on a more comprehensive approach to preventative maintenance. Wastewater Division staff continues to review technologies and plans for dealing with emergencies, and have identified the most important segments of City sanitary sewer mains (approximately 11.8 miles) targeted for upcoming rehabilitation or replacement. Smartcovers have been installed on critical trunk lines to assist in early warning of potential problems.

2015-2017 Future Program Improvements:

Enacting plans from prior development will continue for several years.

10.2 Element 2.0: Organization

2012-present Accomplishments:

The sewer maintenance and management has improved communication among staff resulting in increased productivity and more effective rehabilitation project development. Greater involvement of administration in the wastewater collection program has improved communication and added emphasis to these activities. Recent changes in compensation may improve responsiveness in off-hour activities. Three staff members have been certified in NASSCO PACP for uniform pipeline condition grading.

2015-2017 Future Program Improvements:

Collection workers are gaining experience, and much of the improvement realized will come from this. Changes in organizational structure are not anticipated at this time.

10.3 Element 3.0: Legal Authority

2012-present Accomplishments:

Particularly with respect to businesses, the City has been largely successful working with businesses to achieve compliance, exercising legal authority within its limits as needed.

2015-2017 Future Program Improvements:

Additional updates to the City Sewer Use Ordinance (LMC 13.16) and fee schedule will clarify legal responsibilities in a sustainable way.

10.4 Element 4.0: Operations and Maintenance Program

2012-present Accomplishments:

Staff has now fully implemented cleaning and video programs, with special emphasis as planned for difficult areas. This program has been largely successful in reducing SSOs on the City sanitary sewer system, as well as reducing complaints. A comprehensive capital planning program for City sewer main rehabilitation and replacement has commenced to address the most important areas of concern. A series of five successive annual rate increases were approved by City Council in August 2013 to fund sewer projects into the future.

2015-17 Future Program Improvements:

Considerable engineering will be needed to complete the City sewer main rehabilitation and replacement scheduled for this time period. Templates for specifications of various kinds of projects have been developed that will help streamline the engineering process. Staff will continue to assess new technologies and gain additional insights from training.

10.4 Element 5.0: Design and Construction Standards

2012-present Accomplishments:

LWCD has incorporated a procedure of reviewing and updating design and construction standards with every two-year business plan update, or sooner if necessary. Updates are finalized with the City's Engineering Division.

2015-17 Future Program Improvements:

LWCD understands the need to ensure the public and contractors are aware of and follow the City's proper design and construction standards. Public outreach to residents, local plumbers and sewer contractors is ongoing.

10.6 Element 6.0: Overflow Emergency Response Plan

2012-present Accomplishments:

Throughout this period, sewer maintenance crews showed increasing awareness of emergency overflow response plan requirements, field and reporting procedures and the importance of data capture. All staff is trained, aware of, and takes the necessary field actions to attempt to reduce impacts of sanitary sewer overflows on state waters and the public. Staff is updated with the State's new monitoring and reporting program.

2015-2017 Future Program Improvements:

LWCD will continue to develop plans to control the potential for major sewer spills from the City's large interceptor lines, especially planning for rainy, windy, night-time conditions.

10.7 Element 7.0: FOG Control Program

2012-present Accomplishments:

Several existing FSEs were provided assistance for better grease interceptor performance. Helpful grease interceptor advice was provided for new FSE installations to both improve sewer conditions as well as mitigate common business complaints, such as from odors.

2015-2017 Future Program Improvements:In the coming years, Water Resources will be developing a more comprehensive public outreach program to assist efforts with reduction of FOG materials entering the collection system from private property.

SSMP
Element 11

11.0 Communication Program

- **Requirement:**

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

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

Element 11.0: Communication Program

This section highlights the communications and outreach plan developed for the City of Lompoc Sewer System Management Plan (SSMP).

The City of Lompoc primary "customers" are the residential, industrial, and commercial customers that connect to the sewers located within Lompoc. In addition, two (2) "satellite systems" contribute flow to the City of Lompoc sanitary sewer collection system. These contributing systems (or Member Agencies, "MA") are Vandenberg Village Community Services District and Vandenberg Air Force Base. The primary customers of the satellite systems are the residential, industrial, and commercial customers that connect to the collector sewers located within the service areas of the contributing systems.

11.1 Communications with Contributing "Satellite Systems"

The City developed and implemented a communications program with its two (2) MAs. The plan has established a collaborative approach to communicate with contributing systems and work together during the development and implementation of, and future improvements, to the SSMP. The City plans to work with all of the MAs as they develop their SSMP's and facilitate meetings to discuss common issues and provide support during the SSMP development process.

Meetings will be held with representatives who are responsible for development and maintenance of the SSMP at each MA; the City's Wastewater Superintendent is in the position which will usually interface with the satellite systems. The agenda or topics for meetings with satellite systems may include master plan, capacity issues, emergency response plans, and capital programs.

11.2 Communications with and outreach to residential, industrial, and commercial customers and the general Public.

The City provides 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. Questions or comments are often received by e-mail at: wwtp-Info@ci.lompoc.ca.us

The City of Lompoc conducts public outreach and education to residents and businesses related to sanitary sewer overflows. Information on grease and other information is provided at community events additionally related to SSO's.

11.3 FOG Program

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

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 the buildup of fats, oil or grease 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.

11.4 Communication with and outreach to, land developers, consultant engineers, contractors.

The City disseminates 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 reduces sewer overflows.

For the Sewer Connection Fee, the City outreaches to its customers, local neighborhood associations, and development communities, as City Council discuss proposed rate changes and impacts on capital programs with such changes.

Internally, City communicates internally within 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 the Capital Improvement Program, key stakeholders may be contacted to include engineering consultants and contractors. 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 City Council and the Utility Commission, particularly with respect to budget development.

SSMP
Element 12

12.0 SSMP Completion and Certification

- **Requirement:**

a. Both the SSMP and the Enrollee program to implement the SSMP must be certified by the Enrollee to be in compliance with the requirements set forth above and must be presented to the Enrollee governing board for approval at a public meeting. The Enrollee shall certify that the SSMP and subparts thereof are in compliance with the general WDR within the time frames identified in the schedule provided in subsection 0.15 below

b. In order to complete this certification, the Enrollees authorized representative must complete the certification portion in the online SSO database questionnaire by checking the appropriate milestone box, printing and signing the automated form and send the form to the State Water Board.

Element 12.0: SSMP Completion and Certification

This section verifies the Sewer System Management Plan has been completed, approved as per Action of the Lompoc City Council appended to this section, and certified.