



City of Galt  
Sanitary Sewer Management Plan  
(SSMP)  
July 2009

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**LIST OF ABBRVIATIONS AND ACRONYMS**

AC.....Asbestos Cement (pipe)  
ADWF .....Average Dry Weather Flow  
CDC .....California Department of Corrections  
CGIS .....City of Galt Improvement Standards  
CIP.....Capital Improvement Program  
City .....City of Galt  
County .....County of Sacramento  
EMD.....County of Sacramento Emergency Management Department  
FOG .....Fats, Oils, and Grease  
GJUHS .....Galt Joint Union High School District  
GMC .....Galt Municipal Code  
GWDR .....General Waste Discharge Requirements  
MGD .....Million Gallons/Day  
OERP.....Overflow Emergency Response Plan  
OES .....Office of Emergency Services  
O & M .....Operations and Maintenance  
PDWF .....Peak Dry Weather Flow  
PVC .....Poly Vinyl Chloride (pipe)  
PWWF .....Peak Wet Weather Flow  
RWQCB.....Regional Water Quality Control Board  
SASD.....Sacramento Area Sewer District  
SCIS .....Sacramento County Improvement Standards  
SOR .....Standard Operating Procedure  
SORP.....Sewer Overflow Response Plan  
SSMP.....Sanitary Sewer Management Plan  
SSO .....Sewer System Overflow  
SWRCB .....State Water Resources Control Board  
VCP .....Vitrified Clay Pipe  
WWTP .....Waste Water Treatment Plant

This introductory section provides background information on the purpose and organization of this Sewer System Management Plan (SSMP) and provides a brief overview of the City's service area and sewer system.

## **SSMP Requirement Background**

This SSMP has been prepared in compliance with requirements of the Regional Water Quality Control Board (RWQCB) pursuant to Section 13267 of the California Water Code, as described in the letter from the RWQCB to the City of Galt (City) dated July 7, 2005. The RWQCB letter mandates that the City prepare an SSMP following the guidelines in the SSMP Development Guide prepared by the RWQCB. The City must also comply with RWQCB sanitary sewer overflow (SSO) electronic reporting requirements issued in November 2004. More recently, the State Water Resources Control Board (SWRCB) acted at its meeting on May 2, 2006 to require all public wastewater collection system agencies in California with greater than one mile of sewers to be regulated under General Waste Discharge Requirements (GWDR). The SWRCB action also mandates the development of an SSMP and the reporting of SSOs using an electronic reporting system. The SWRCB SSMP requirements are similar to the RWQCB requirements, but differ in organization and some details.

## **Document Organization**

This SSMP is intended to meet the requirements of both the RWQCB and the Statewide GWDR. The organization of this document is consistent with the RWQCB guidelines, but the contents address both the RWQCB and SWRCB requirements. The SSMP includes eleven elements, as listed below. Each of these elements forms a section of this document. Parentheses indicate the title of the comparable SWRCB element.

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

Each element section is organized into sub-sections, as follows:

1. Description of both the RWQCB and SWRCB requirement for that element
2. Identification of associated appendix and list of supporting information included in the appendix
3. Discussion of element. The discussion may be split into multiple sub-section depending on length and complexity

Supporting information for each element is included in an appendix associated with that section, as applicable. In general, information expected to require relatively frequent updates (such as names and phone numbers of staff) are included in appendices, as well as other supporting information, such as forms or schedules.

### City Service Area

The City of Galt (City) is located in Sacramento County (County), approximately 25 miles south of the City of Sacramento. Highway 99 intersects the City along the north-south axis. The current population served by the City is approximately 24,000 people. The service area is confined to the City limits in addition to receiving wastewater from the California Department of Corrections (CDC) and new Liberty Ranch High School. Both the CDC and high school facilities are outside the current City limits. Figure 1 shows the location of the City.

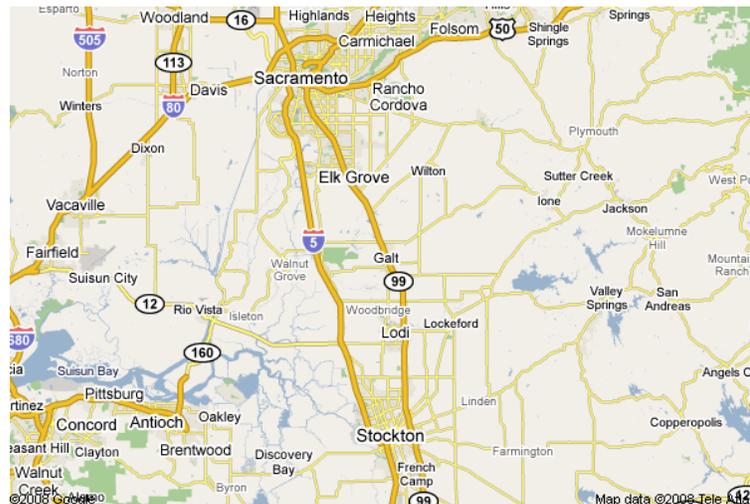


Figure 1 Vicinity Map

## The System

The entire population of the City of Galt is served by the System of gravity sewer lines with intermediate lift stations and force mains. The System network of nearly 75 miles of sewer lines extends from boundary to boundary of the current city limits. The City also collects wastewater from the California Department of Corrections (CDC) and the new Liberty Ranch High School. The force main to the Wastewater Treatment Plant (WWTP) lies partially within the county. The sewer line diameters range from the smallest at 6 inches to the largest at 24 inches. Years of service date back to a time before the initial construction of the McFarland Lift Station in 1965, according to record drawings of the City.

Prior to 1998, the primary material used to construct sewer mains in the City was Vitrified Clay Pipe (VCP). After 1999, polyvinyl chloride (PVC) pipes were the preferred material for sewer lines. Newer subdivisions being constructed in the City are using SDR 35 PVC pipes for the sewer mains due to their relative cost effectiveness, low roughness, and ease of installation. Force mains in the City have historically been constructed using asbestos concrete (AC) pipe. Because of the hazardous nature of asbestos all new force mains constructed in the City are required to utilize non-asbestos based pipe. Presently, there are two major sewage force mains in the City. The first major sewer force main is the 14' AC pipe sewer force main used to deliver pumped wastewater from the A Street and McFarland lift station to the Live Oak Lift Station. The second major sewer force main is the 16' force main that conveys the pump flow from the Live Oak Lift Station to the City's WWTP, where the incoming flow is recorded and treated before discharge or disposal at the City's reclamation fields.

In addition to maintaining its own sewer system, the City maintains agreements with the California Department of Corrections, McGee Correctional Training Center and the Galt Joint Union High School District, Liberty Ranch High School for collection services. Both the training center and the high school are currently not within City limits.

# Element 1: GOALS

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This SSMP element identifies goals the City has set for the management, operation and maintenance of the sewer system and discusses the role of the SSMP in supporting these goals. These goals provide focus for City 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 both the RWQCB (Element 1) and the SWRCB (Element 1) SSMP requirements.

## 1.1 Regulatory Requirements for Goals Element

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

### **RWQCB Requirement:**

The collection system agency must develop goals to manage, operate, and maintain all parts of its collection system. The goals should address the provision of adequate capacity to convey peak wastewater flows, as well as a reduction in the frequency of sanitary sewer overflows (SSOs) and the mitigation of their impacts.

### **SWRCB Requirement:**

The collection system agency must develop goals to properly 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 Element 1 Appendix

There is no appendix associated with Element 1.

## 1.3 Goals Discussion

Providing safe, responsive, and reliable sewer service is a key component to fulfilling the City's mission statement: "The City of Galt is committed to providing exceptional public services and facilities in an honest, efficient and fiscally responsible manner." In support of this mission, the City has developed the following goals for the operation and maintenance of its sewer system. These goals are also adopted by the City's Public Works Department in the annual Operations and Maintenance program, which includes the sewer system. This document outlines responsibilities, allocates staff hours to Sewer Division work elements, and provides procedures and guidelines for maintenance and cleaning activities, which include:

1. Minimize sanitary sewer overflows.
2. Prevent public health hazards.
3. Minimize inconveniences by responsibly handling interruptions in service.
4. Protect the large investment in collection systems by maintaining adequate capacities and extending useful life.
5. Prevent unnecessary damage to public and private property.
6. Use funds available for sewer operations in the most efficient manner.
7. Convey wastewater to treatment facilities with a minimum of infiltration, inflow and exfiltration.
8. Provide adequate capacity to convey peak flows.
9. Perform all operations in a safe manner to avoid personal injury and property damage.
10. Improve the City's infrastructure.

This SSMP supplements and supports the City's existing Operations & Maintenance Program and goals by providing high-level, consolidated guidelines and procedures for all aspects of the City's sewer system management. The SSMP will contribute to the proper management of the collection system and assist the City in minimizing the frequency and impacts of SSOs by providing guidance for appropriate maintenance, capacity management, and emergency response.

## Element 2: ORGANIZATION

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This section of the SSMP identifies City staff that are responsible for implementing this SSMP, responding to SSO events, and meeting the SSO reporting requirements. This section also includes the designation of the Authorized Representative to meet SWRCB requirements for completing and certifying spill reports. This section fulfills the Organization requirement of both the RWQCB (Element 2) and the SWRCB (Element 2) SSMP requirements.

### 2.1 Regulatory Requirements for Organization Element

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

#### **RWQCB Requirement:**

The collection system agency's SSMP must identify staff responsible for implementing measures outlined in the SSMP, including management, administration, and maintenance positions. Identify the chain of communication for reporting and responding to SSOs.

#### **SWQCB Requirement:**

The collection system agency's SSMP must identify:

1. The names of the responsible or authorized representative;
2. The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. Include line of authority as shown in an organization chart or similar document with a narrative explanation; and
3. The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as Sacramento County Environmental Management District and /or State Office of Emergency Services).

### 2.2 Element 2 Appendix

Supporting information for Element 2 is included in Appendix A. This appendix includes the following documents:

1. Table of department staff names and phone numbers (updated as needed).
2. Organizational Chart

## 2.3 Organization Discussion

This section discusses the organization and roles of sewer staff, the authorized representative to the SWRCB, and key staff responsible for implementing and maintaining the SSMP.

### Department Organization

The organization chart for the management, operation, and maintenance of the City's wastewater collection system is shown on Figure 2-1. The names and phone numbers of staff filling these positions are included in Appendix A, Table 1.

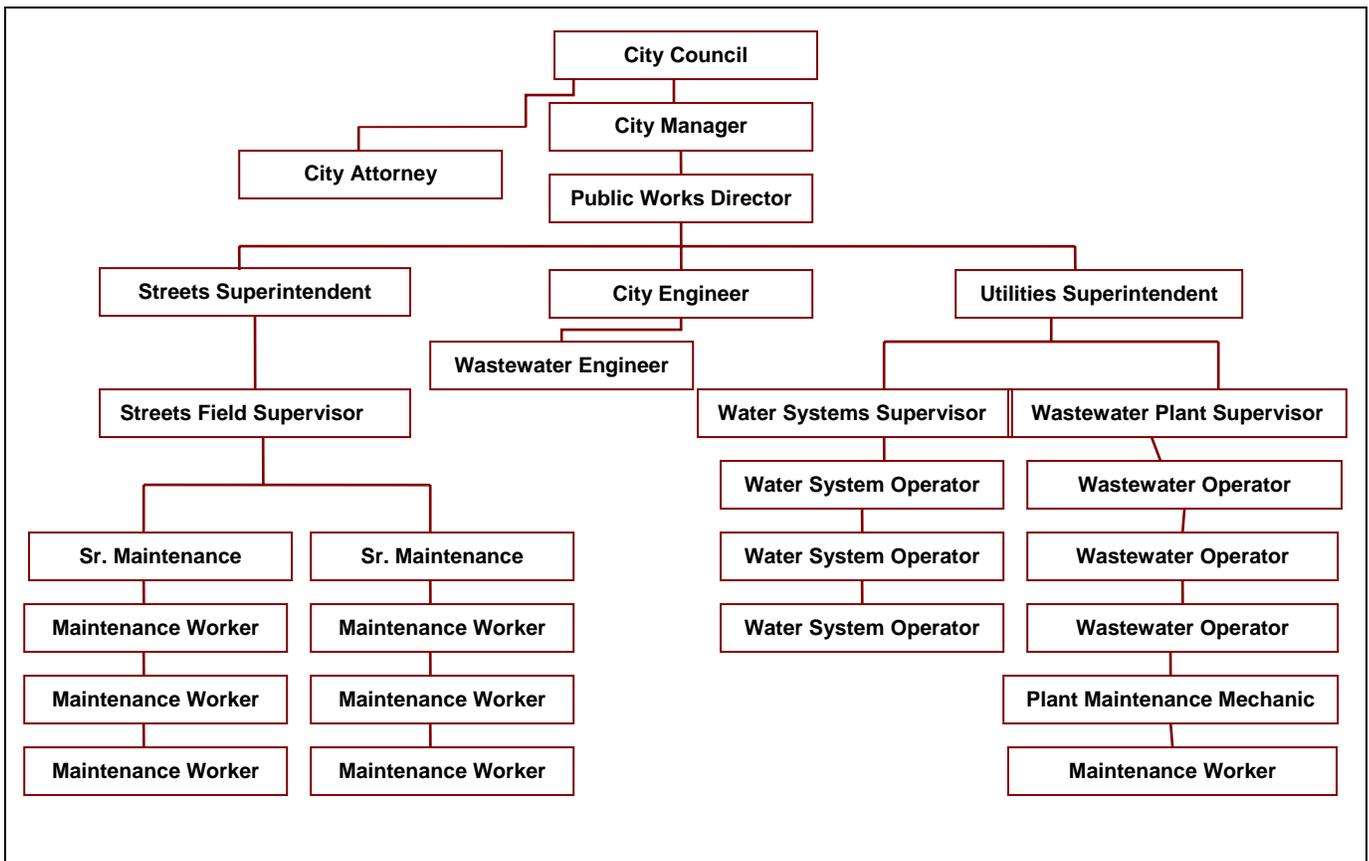


Figure 2-1. Organization Chart of Sewer Staff

### Description of General Responsibilities

Public Works Director Under administrative direction of the City Manager, plans, organizes and provides administrative direction and oversight for all public works functions and activities, which include infrastructure engineering, design and construction; streets and traffic control; underground lines; review of private sector development; facility, equipment and infrastructure maintenance; construction and maintenance of water distribution and treatment systems and wastewater collection and treatment systems; provides expert professional assistance to City management

staff in areas of expertise; fosters cooperative working relationships with intergovernmental and regulatory agencies and various public and private groups; and performs related work as required.

City Engineer Under direction of the Public Works Director, plans, organizes and provides administrative direction and oversight for the Engineering Division (or other assigned division) within the Public Works Department, including transportation/traffic design, construction administration and inspection, right-of-way acquisition, CIP, development engineering, supervises staff, administers the division's budget, performs professional civil engineering work; acts as project manager for major engineering design projects; and acts as the Public Works Director in the Director's absence.

Associate/Senior Engineer Under direction of the Public Works Director or City Engineer, performs professional field and office engineering work related to the planning, design, construction and maintenance of City capital improvement projects and infrastructure; confers with developers, contractors and representatives of other agencies regarding facility and infrastructure development; administers professional services and construction contracts; provides professional assistance to the Public Works Director/City Engineer, the City Council and others in areas of expertise; performs a variety of studies and prepares and presents staff reports; if appropriate registered, signs drawings, submits reports and performs similar work within state guidelines; and performs related work as required.

Utilities Superintendent Under direction of the Public Works Director, plans, organizes, oversees, coordinates and reviews a comprehensive program of utilities administration, including water production, treatment and distribution and wastewater collection, treatment and disposal construction, operation, maintenance and repair; provides administrative support to the Director in areas of utility capital improvements, budget and a preventive maintenance program; ensures that federal and state regulations are complied with; and performs related work as required.

Streets Superintendent Under direction of the Public Works Director, plans, organizes, oversees, coordinates and reviews a comprehensive program of public works construction, maintenance and repair of City infrastructure, which includes streets and traffic control, the water distribution, sewer collection and storm water systems, infrastructure maintenance and the City corporation yard and the Central Shop; provides administrative support to the Director in areas of capital improvements, budget and a preventive maintenance program; and performs related work as required.

Streets Field Supervisor Under direction of the Public Works Streets Superintendent, the incumbent plans, organizes, directs, schedules, reviews, evaluates, and supervises field staff performing public works construction, maintenance and repair of City infrastructure, which includes streets and traffic control, the water distribution, sewer collection and storm water systems, and other

operational and maintenance work. In addition, the incumbent assists the field staff in the performance of these duties and performs related work as required.

Senior Public Works Maintenance Worker Under general supervision of the Public Works Streets Field Supervisor, provides lead direction, training and work review to one or more maintenance crews on projects, at assigned sites or in areas of specialty; performs a variety of specialized skilled and semi-skilled work in the construction, modification, maintenance, repair and operation of City infrastructure, including streets, traffic controls and structures, storm and sanitary sewers, water and wastewater systems; and performs related work as required.

Public Works Maintenance Worker I/II Under general supervision of the Public Works Streets Field Supervisor, performs a variety of semi-skilled work in the construction, modification, maintenance, repair and operation of City infrastructure, including streets, traffic controls and structures, storm and sanitary sewers, water and wastewater systems; and performs related work as required.

Wastewater Plant Supervisor Under direction of the Utilities Superintendent, has administrative responsibility for the operation and maintenance of the City's wastewater treatment plant and related equipment and facilities; plans, organizes, directs, reviews and evaluates staff performing work required to operate and maintain a municipal wastewater treatment plant and to meet state and federal regulatory requirements; personally performs operational and maintenance work; and performs related work as required.

Wastewater System Operator Under general supervision of the Wastewater Treatment Plant Supervisor or the Utilities Superintendent, learns, operates and performs routine maintenance on equipment, facilities and related appurtenances as found in a secondary, activated sludge wastewater treatment plant and related collection and disposal facilities; and performs related work as required.

Plant Maintenance Mechanic Under general direction, performs a variety of tasks necessary to maintain the equipment and structures of the water and wastewater treatment plants, related facilities and performs other duties as assigned

The Streets Division is responsible for the City's focused 30 and 90 day cleaning cycle. One two-person team, combined with the straight or combo flush truck perform cleaning as needed. This includes zone cleaning (cyclic), follow-up cleaning and supplemental cleaning.

### **Authorized Representative**

The City's authorized representative in all wastewater collection system matters is the Public Works Director. The Public Works Director is authorized to certify electronic spill reports submitted to the appropriate government agencies.

The Streets Superintendent and Utilities Superintendent are also authorized to submit and certify SSO reports to the appropriate government agencies.

The Wastewater Supervisor is authorized to submit electronic reports of SSOs to the California Integrated Water Quality System.

### **Responsibility for SSMP Implementation**

The Public Works Director is responsible for implementing and maintaining all elements of this SSMP.

## **2.4 SSO Reporting Chain of Communication**

Figure 2-2 contains a flowchart depicting the chain of communication for responding to and reporting SSOs, from observation of an SSO to reporting the SSO to the appropriate regulatory agencies. Table 2-1 lists contact phone numbers for the parties included in the chain of communication. The SSO Reporting process is described in more detail in Element 6: Overflow Emergency Response Plan.

**Table 2-1. Contact Numbers for SSO Chain of Communication**

<b>Contact</b>	<b>Telephone Number</b>
City Hall	(209) 366-7100
Municipal Service Center	(209) 366-7260
Police Department Dispatch Center	(209) 366-7000
Public Works Director	(209) 366-7260
Streets Works Superintendent	(209) 366-7293
Streets Field Supervisor	(209) 366-7292
On-Call Personnel	(209) 810-0534

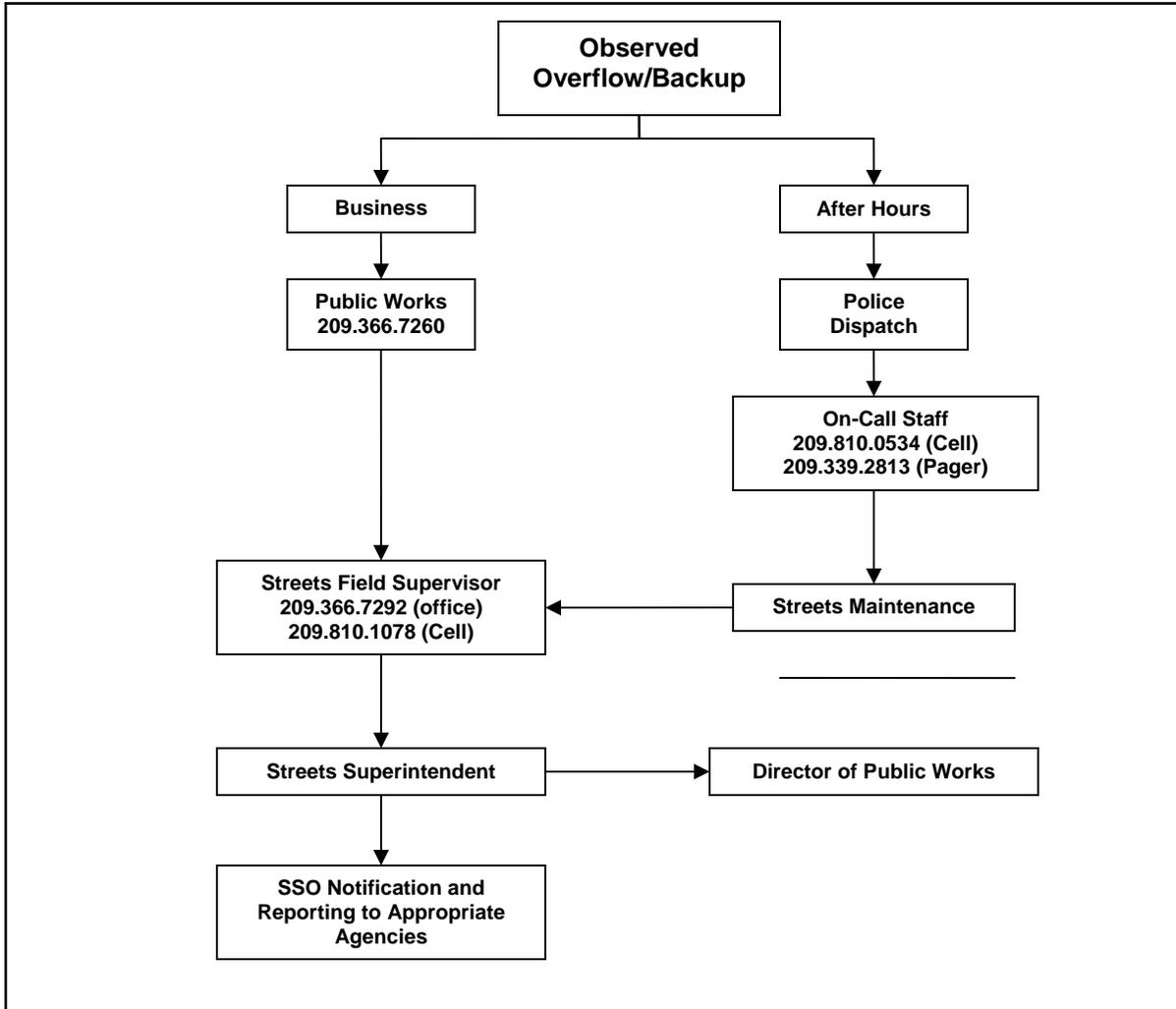


Figure 2-2. SSO Response Chain of Communication

This element of the SSMP discusses the City's Legal Authority, including the GMC and agreements with other agencies. This section fulfills the Legal Authority requirement for the RWQCB (Element 5) and the SWRCB (Element 3).

### **3.1 Regulatory Requirements for Legal Authority Element**

The requirements for the Legal Authority element of the SSMP are summarized below:

#### **RWQCB Requirement**

The City must demonstrate that it has the legal authority (through ordinances, service agreements, and other binding procedures) to control infiltration and inflow (I/I) from satellite collection systems and private service laterals; require proper design, construction, installation, testing, and inspection of new and rehabilitated sewers and laterals; and enforce violation of ordinances.

The SSMP should describe specific applicable legal mechanisms, with citations of names and code numbers of ordinances. If legal authority does not currently exist for a required element, the SSMP should indicate a schedule of activities to obtain the proper legal authority.

#### **SWRCB Requirement**

The City must demonstrate, through collection system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:

- a. Prevent illicit discharges into its wastewater collection system (examples may include infiltration and inflow (I/I), storm water, chemical dumping, unauthorized debris and cut roots, etc.);
- b. Require that sewers and connections be properly designed and constructed;
- c. Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;
- d. Limit the discharge of fats, oils, and grease and other debris that may cause blockages, and
- e. Enforce any violation of its sewer ordinances.

### **3.2 Element 3 Appendix**

Supporting information for Element 3 is included in Appendix B. This appendix includes the following documents:

1. Title 14 (Wastewater Services) of the GMC
2. Diagram illustrating lateral maintenance responsibilities

3. Agreements with California Department of Corrections (CDC) and Galt Joint Union High School District (GJUHSD)

### **3.3 Municipal Code**

The legal authority required for the SSMP by the RWQCB and the SWRCB is contained within the GMC, Sacramento County Improvement Standards (SCIS), the City of Galt Improvement Standards (CGIS), and the Uniform Plumbing Code (UPC).

Three chapters of the GMC are dedicated to the sewer system, all included in Title 14, Public Services:

- 14.04 Sewer System Fees and Charges. Discusses policies pertaining to fees, including service charges, billing and collection, and calculation of connection fees.
- 14.10 Sanitary Sewer Connections. Provides regulations for the use and construction of sanitary sewer facilities installed, altered, or repaired within the City.
- 14.20 Sewer System Protection Regulations. Includes provisions to prevent and control pollution to protect human health.

Chapter 14 as listed above pertains to the legal authority required for fulfillment of SSMP requirements. This chapter is included in full in Appendix D. Portions of this chapter are discussed in the following sub-sections as they pertain to prevention of illicit discharges, proper design and construction of sewer and connections, maintenance access, and enforcement measures.

The City will determine the need to update the GMC to clarify and enhance the City's legal authority through annual audits of the SSMP. Audit reports are due annually by March 15<sup>th</sup>.

Section 7 of the SCIS relates to design criteria and construction regulations.

Section 2 of the CGIS, General Requirements relates to inspections.

#### **Prevention of Illicit Discharges**

All measures prohibiting illicit discharges are included in GMC Chapter 14, Wastewater Services. The specific purpose of the chapter is to prevent the discharge of any pollutant into the sewers that would obstruct or damage the collection system, interfere with treatment, or threaten harm to human health or the environment. Examples of discharges covered are included below. Refer to the GMC included in Appendix B for the complete text.

- Section 14.10.120 prohibits discharge of unpolluted water, including stormwater, into a sanitary sewer through direct or indirect connection, unless the city has issued a permit. Furthermore, Section 14.10.120 expressly requires that stormwater and other unpolluted drainage be discharged into a storm sewer or approved natural outlet.
- Industrial Waste. Section 14.20 requires all industrial waste dischargers to obtain a permit and prohibits discharge in excess of the permit allowance. The permit issued may require pretreatment or include other provisions for wastewater quality and quantity.
- Other Discharges. Section 14.20 prohibits discharge of any waste that could by itself or by interaction with other waste could, among other requirements, endanger human health, cause damage to the sewer system or extra collection, treatment, or disposal cost, create a nuisance, affect the treatment process, or impact treated water quality. Section 14.20.020 sets forth standards or prohibits discharge of several components, including (but not limited to) dyes, explosives, organic solvents, radioactive waste, solids, and toxic substances. Additional sections in Chapter 14.20 specify requirements for other discharges.

### **Proper Design and Construction of Sewers and Connections**

Regulations pertaining to the design, construction, and inspection of private sewer systems, building sewers, and connections are found in Section 7 of the SCIS, Section 2 of the CGIS, and in Chapter 14.10 of the GMC. The SCIS and CGIS are discussed in Element 5, Design and Construction Standards, and can be found in Appendix D.

- Connection Permit Required. A permit is required prior to construction of any private sewage disposal system (section 14.10.050). No person or corporation shall make any connection with any part of the public sewers or opening into such public sewers without a written permit issued by the City. Such permit may be in the form of an encroachment permit or approved public improvement plan. A building permit and/or a wastewater discharge permit may also be required.
- Design Requirements. Section 7.1 of the SCIS discusses design criteria. Section 7.4 of the SCIS specifies pipe capacity, slope, velocity, size, depth, and material.
- Construction Requirements. Section 7.4 of the SCIS discusses required construction criteria.
- Inspection. Section 2.3 of the CGIS requires approval of the City Inspector or other authorized representative on all completed work.

### **Lateral Maintenance Access**

Property owners are responsible for maintaining the street and house lateral all the way to the main sewer, except for reconstruction or repair, per Section 14.10.100. Section 15.04.20 of the GMC adopts the UPC. Section 707 of the UPC requires cleanouts at the junction of a building sewer and lateral sewer. This City has a diagram illustrating lateral maintenance responsibilities, included in Appendix B.

### **Limit Discharge of FOG and Other Debris**

As discussed under Element 4: Fats, Oils, and Grease (FOG) Control Program, Section 14.20.030 prohibits grease disposal exceeding 200 milligrams per liter, including discharge to any public or private sanitary sewer, and Section 14.20.050 requires a grease removal device for commercial or industrial grease generators. This section also includes requirements for cleaning grease removal devices.

Discharge of debris would be covered by Section 14.20.020, which, among other things, prohibits discharge of any waste that could create a nuisance, cause damage to the sewer system or cause extra collection, treatment, or disposal cost. Additionally, Section 14.20.020 prohibits discharge of solids that will obstruct or damage the collection system, and Section 14.10.020 prohibits discharge of any substances into a manhole.

### **Enforcement Measures**

Different enforcement measures are available for enforcement of sewer provisions in Chapter 14.10 (sanitary sewer connections) and Chapter 14.20 (use of the sanitary sewer system).

Chapter 14.10.130 includes enforcement measures for violations of provisions included in that chapter. Written notice is provided to persons in violation, with a time limit for correction. Further enforcement provisions include declaration of a public nuisance and disconnection from public sewers. The person in violation is liable to the city for expense, loss, or damage resulting from the violation.

Chapter 14.20.310 includes enforcement measures for violations of provisions included in that chapter. Enforcement measures range from issuance of a notice of non-compliance to criminal penalties.

All enforcement measures shall be punishable as provided by Chapter 21.01 of Title 21

## **3.4 Agreements with Other Agencies**

The City maintains an agreement to provide utilities services with the CDC for the collection and treatment of waste from the Richard McGee Correctional Training Center which is located outside the City limits. Additionally, the City has entered into an agreement to provide utilities services with the GJUHS for Liberty Ranch High School, which is also outside the City limits.

## **Element 4: MEASURES AND ACTIVITIES**

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This section of the SSMP discusses the City's operations, maintenance and other related measures and activities. This section fulfills the Measures and Activities SSMP requirement for the RWQCB (Element 6) and the Operation and Maintenance Program SSMP requirement for the SWRCB (Element 4).

### **4.1 Regulatory Requirements for Measures and Activities Element**

The requirements for the Measures and Activities element of the SSMP are summarized below. Since requirements for this SSMP element contain several categories, this summary is organized by category, with RWQCB and SWRCB requirements described for each category as applicable.

#### **Collection System Map**

RWQCB Requirement: The wastewater agency must maintain up-to-date maps of its collection system facilities. The SSMP should describe the type of maps currently being used, along with procedures for updating the maps with new and rehabilitated facilities.

SWRCB Requirement: As appropriate and applicable to the system, the wastewater agency must maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments, manholes, pumping facilities, pressure pipes, valves, and applicable stormwater conveyance facilities.

#### **Resources and Budget**

RWQCB Requirement: The wastewater agency shall allocate adequate resources for the operation, maintenance, and repair of its collection system. The SSMP should demonstrate that the resources are adequate for an acceptable delivery of the agency's services.

SWRCB Requirement: None.

#### **Prioritized Preventive Maintenance**

RWQCB Requirement: The wastewater agency shall prioritize its preventive maintenance activities. The SSMP should describe the system currently used for prioritized preventive maintenance and any plans, as needed, to maintain the integrity of the system and reduce the frequency of SSOs.

SWRCB Requirement: As appropriate and applicable to the system, the wastewater agency must 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 program should have a system to document scheduled and conducted activities, such as work orders.

### **Scheduled Inspections and Condition Assessment**

RWQCB Requirement: The wastewater agency shall identify and prioritize structural deficiencies and implement a program of prioritized short-term and long-term actions to address them. The SSMP should describe the approach currently used for scheduled inspections and condition assessment of the sewer collection system. The approach should address criteria and results for short-term and long-term prioritization of corrective actions based on identified structural or other deficiencies.

SWRCB Requirement: As appropriate and applicable to the system, the wastewater agency must 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 manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short and long term plans plus a schedule for developing the funds needed for the capital improvement plan.

### **Contingency Equipment and Replacement Inventories**

RWQCB Requirement: The wastewater agency shall provide contingency equipment to handle emergencies, and spare/replacement parts intended to minimize equipment/facility downtime. The SSMP should summarize the agency's critical spare parts inventory and list major equipment used for sewer system operation and maintenance.

SWRCB Requirement: As appropriate and applicable to the system, the wastewater agency must provide equipment and replacement part inventories, including identification of critical replacement parts.

### **Training**

RWQCB Requirement: The wastewater agency shall provide training on a regular basis for its staff in collection system operations, maintenance, and monitoring. The SSMP should include a description of the agency's training program and whether any changes or improvements are anticipated in the near future.

SWRCB Requirement: As appropriate and applicable to the system, the wastewater agency must provide training on a regular basis for staff in sanitary sewer system operations, maintenance, and require contractors to be appropriately trained.

## Outreach to Plumbers and Building Contractors

RWQCB Requirement: The wastewater agency must implement an outreach program to educate commercial entities involved in sewer construction or maintenance about the proper practices for preventing blockages in private laterals. This requirement can be met by participating in a region-wide outreach program.

SWRCB Requirement: None.

## 4.2 Element 4 Appendix

Supporting information for Element 4 is included in Appendix C. This appendix includes the following documents:

1. Standard Operating Procedure, Collections System Operations and Maintenance
2. Inspection Checklist for Pump/Lift Station/Sewer Mains/Manholes
3. Focused Cleaning Schedules
4. Equipment Inventory
5. Force Main Schematic Diagram

## 4.3 Collection System Map Discussion

Map Book The sanitary sewer system infrastructure maps are available in AutoCAD (ACAD) and Arc Geographic Information System (GIS) format. The City's Technical Services Branch maintains the mapping system. The City staff uses ACAD to schematically draw the sewer system from the record drawings into the sewer base map. The sewer base map is then converted into the shape file and incorporated in the GIS software. Since 2005, the City requires the design engineers of the new developments to submit the GIS shape file of the record drawings. Every utility vehicle has one set of the map books for the field crew.

GIS Map The City began using GIS software for its data management and mapping of the sewer collection system in 2005. The City's goal is to prepare and maintain a sanitary sewer database that will reflect the current system configuration. The GIS database contains the data for the sanitary sewer main lines, manholes, lift stations, and service agreement areas. The GIS database includes the sewer main line descriptors such as pipe sizes, pipe types, direction of flow, installation year, invert and rim elevations. Currently, the City has 20 percent of its sewer data entered into the GIS software.

The City funds sewer system services, including operations, maintenance, and capital projects, through a sewer enterprise fund and developer paid infrastructure fees. This fund is user-supported; it uses revenue from rate payers to fund sewer-related work. The City currently has adequate resources and budget to provide sufficient operations, maintenance, and repair of the collection system as required by the SSMP, and the City re-evaluates its budget each budget year.

#### **4.4 Resources and Budget Discussion**

The City prepares a formal budget every two fiscal years. The most recent plan was prepared in 2007, and covers fiscal years (FY) 2008/2009 and 2009/2010. A 5-year CIP has also been prepared and covers the years 2008 through 2012. The City's most recent Sewer System Capacity Analysis, was completed in 2005.

This plan identified needed system improvements, prioritizations; potential unit costs; and an overall evaluation of the collection system. This information was used to identify projects that are in the current CIP. The City also conducted a Gap Analysis for the new Waste Discharge Requirements in November 2007. The City is nearing completion on a new Sewer Master Plan, which will further identify deficiencies and areas needing attention. After review of the new Sewer Master Plan, Capacity and Gap Analysis, the CIP will be updated as needed to address future projects to upgrade the collection system.

#### **4.5 Prioritized Preventive Maintenance Discussion**

The City does prioritize its preventive maintenance activities. The preventive maintenance program includes scheduled focused and cyclic cleaning, and regular inspection of pump stations, as well as investigation of customer complaints. The following subsections summarize the City's preventive maintenance activities.

##### **Sewer Cleaning**

Cleaning is the City's primary sewer maintenance activity. The City has both frequent, focused cleaning as well as cyclic cleaning for pipes not on the focused cleaning schedule. These two cleaning programs are discussed below.

##### **a. Focused Cleaning**

Approximately 36,760 lf of sewers (10% of the system) are included in the focused cleaning program, with cleaning on a 30, or 90 day schedule. Cleaning frequency depends on the history and causes of stoppages or overflows on a line. Table 4-1 summarizes the total length of sewers cleaned by frequency, and maps showing which sewers are included in the program have been included in the appendix. Focused cleaning is performed primarily by jetting.

<b>Table 4-1. Length of Sewers in Focused Cleaning Program Cleaning Frequency (days)</b>	<b>Length (feet)</b>
30	3,100
90	33,660
<b>Total (feet)</b>	<b>36,760</b>
<b>Total (feet/year)</b>	<b>171,840</b>

The City's Maintenance Division maintains tables of each manhole to manhole reach scheduled for 30, 60, or 90 day cleaning. These tables are included in Appendix E. These tables are also used as cleaning logs, on which maintenance workers note the date and time of flushing, as well as the debris type and severity.

b. Cyclic Cleaning

Staff is developing a cyclic cleaning schedule with the goal of cleaning the entire system on a 4 year cycle (25 percent per year). This 4-year cycle is consistent with industry standards and is achievable with current staffing levels.

### **Root Control**

The City has determined that roots are not a significant source cause of blockages and overflows. Most root problems occur in private laterals and are the responsibility of property owners to clear. However, when encountered, root cutting is performed with chain flail attachments on the hydro-cleaning equipment.

### **Lift Station Maintenance**

City staff conducts daily and weekly inspections of the eleven lift stations. Semi-annual electrical systems inspections of these lift stations are done by a contractor. The City is implementing a Supervisory Control and Data Acquisition (SCADA) system to remotely monitor and control the adjustments of the pumps at the eleven lift stations. Currently SCADA is in use at four of the eleven lift stations.

### **Odor Control**

The City receives a small number of odor complaints per year. The City has no official odor control program in place. When there are complaints, City crews flush the sewer lines and attempt to plug holes in the manhole lids where odors may be escaping the system.

### **Investigation of Customer Complaints**

The City responds to customer complaints about sewer service. Complaints are generally related to sewer stoppages, overflows, or odors. Response is performed by the collection system staff during work hours and the on-call staff after hours. Response includes assessing the complaint and resolving the problem.

The majority of the complaints are related to stoppages. During work hours, a cleaning crew is diverted to remove stoppages. Most of the stoppages occur in laterals. Although crews respond to all stoppage complaints, they are not responsible for clearing stoppages in laterals. The City's initial response time goal is 30 minutes. During non-work hours, the City has staff on on-call standby to address complaints. A 30 minute response time is required for on-call staff.

### **Maintenance Management and Work Orders**

The City uses CityWorks by Azteca Systems Inc., as their CMMS software for the sewer collection system. The CityWorks software has the capability of inputting and storing all of the data, such as the pipe attribute information, entering CCTV records, cleaning the trouble areas, smoke testing, root treatment, generating work orders and others. The CityWorks software interacts with GIS and ACAD software in producing the maps and managing the database. Currently, the City uses CityWorks for generating the "Service Request" forms based on the citizens' request. The City has not used CityWorks to generate a work order or to enter any of the preventive maintenance data. The City has recently sent staff to training and is beginning to expand the use of CityWorks to its full capacity.

## **4.6 Scheduled Inspections and Condition Assessment Discussion**

The City's 2005 Capacity Analysis included a condition assessment and was based on modeling. The City also plans use CCTV to inspect the entire system over the next ten years to perform condition assessment. Staff will use data from CCTV and Capacity Analysis to identify and address areas in need of rehabilitation.

Staff has determined that the best approach is to use a combination of in-house staff and contractors to CCTV the sanitary sewer system. Staff is in the process of soliciting pricing and selecting a contractor. Staff is developing specifications for a camera system to prepare an Invitation to Bid for this purchase.

A new Sewer Master Plan is nearing completion and will further address the condition of all aspects of the sanitary sewer system.

### **Manhole Inspection**

As part of the focused and cyclic cleaning programs, City maintenance staff visually inspects manholes for corrosion, debris or damage around the base, cracks or holes, and condition of manhole steps.

## **Pipeline Condition Assessment and Rehabilitation**

The 2005 sewer system capacity analysis produced a list of deficient sewer lines that are in need of rehabilitation. A priority list was created on a scale from 1 to 6, with 1 being identified as needing upgrade first. Priority one sewer lines are smaller sewer lines that currently flow full at existing peak dry weather flow.

In order to continue to effectively identify and prioritize sewer rehabilitation and repair needs, the City plans to use CCTV inspection. CCTV inspection will facilitate the development of the scope for the annual sewer repair CIP projects.

## **Lift Station Inspections and Assessment**

City staff conducts daily and weekly inspections of their eleven lift stations. The semi-annual electrical systems inspections of these lift stations are done by a contractor. The City is implementing a Supervisory Control and Data Acquisition (SCADA) system to remotely monitor and control the adjustments of the pumps at the eleven lift stations. Currently SCADA is in use at four of the eleven lift stations.

Results of the 2005 System Capacity Analysis determine that there is no immediate need to increase the pumping capacity of the existing lift stations.

## **4.7 Contingency Equipment and Replacement Inventories**

The City maintains an equipment inventory. All sewer maintenance equipment and replacement parts are stored at the City's Municipal Service Center. Equipment and replacement parts are periodically replaced based on the estimated useful and remaining life. The City's equipment inventory list is included in Appendix E.

The City keeps spare/replacement parts in inventory to minimize facility downtime in the event of an unplanned failure. Spare parts include spare manhole lids; hoses, valves, and heads for maintenance and emergency response equipment; and various diameters of replacement pipe. City pump stations include redundant systems to reduce impacts of a failure.

Pump stations and the City's trunk main are considered as "critical" parts of the system. Contingency equipment stored by City to support an effective response to emergency conditions include sewer bypass pumps and piping, emergency backup generator, and Vac-Con truck. The City stores the adequate inventory for responding to overflow emergencies. The City also plans to purchase mainline CCTV equipment in the next year.

## 4.8 Training Discussion

The City budgets for training its sewer maintenance staff each year, and the Streets Division has a training program and will continue to review its training program to meet the demands of maintaining the sewer system.

The City encourages sewer staff to become CWEA certified, and providing training opportunities to enable all sewer maintenance staff to become and remain certified is a goal of the City. The City assists with certification by paying for the preparation course, certification exams, and required continuing education. Currently, 80% of Streets Division Staff are certified as Collection System Operators. The City also provides training tapes and manuals for employees for both work and home study. As nearly all of the City's current sewer maintenance staff is certified, the current focus is on continuing education to maintain certification.

The City uses numerous outside programs, as well as providing in-house and on-the-job training for sewer maintenance crews. Training programs that the City uses are listed below:

- CWEA
- APWA
- Maintenance Superintendent Association
- Vendor sponsored training
- In-house training by supervisor and lead workers
- Safety tailgate meetings by experienced staff or vendors

For in-house training the City uses the Operation and Maintenance of Wastewater Collection Systems (by Kenneth D. Kerri). All field training is supervised by an experienced certified operator. New employees and operators work with an experienced senior operator for at least three months or until they can demonstrate competency in each skill set.

## 4.9 Outreach to Plumbers and Building Contractors Discussion

Plumbers and sewer contractors have access to all available County of Sacramento and City of Galt improvement standards. The City is in the process of developing a brochure to disseminate information on construction standards, proper operations and maintenance activities, and effective measures for removing blockages.

## **Element 5:**

# **DESIGN AND CONSTRUCTION STANDARDS**

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This section of the SSMP discusses design and construction standards adopted by the City of Galt for sanitary sewer systems. This section fulfills the Design and Construction for Regional Water Quality Control Board (Element 7) and the State Water Resources Control Board (Element 5).

### **5.1 Regulatory Requirements for Design & Construction Standards Element**

The requirements for the Design and Construction elements of the SSMP are summarized below.

#### **RWQCB Requirement**

The City shall identify minimum design and construction standards and specifications for the installation of new sewer systems and for the rehabilitation and repair of existing sewer systems. The City should evaluate if the existing design standards are appropriate and up to date. If the City believes its current standards are appropriate, the City can refer to the documentation that already exists.

The City shall also identify procedures and standards for inspecting and testing the installation of new sewers, pump stations, and other appurtenances; and for rehabilitation and repair projects. The SSMP may refer to existing documentation.

#### **SWRCB Requirement**

The City must have design and construction standards and specifications for the installation of new sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sewer systems. The City must also have procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

### **5.2 Element 5 Appendix**

Supporting information for Element 5 is included in Appendix D. This appendix includes the following documents:

1. The City's Standard Specifications and Standard Plans, Exhibit A (2007).
2. The latest editions of the Sacramento County Improvement Standards and Standard Construction Specifications including drawings.

### 5.3 Design & Construction Standards Discussion

In July 2007 the City adopted the use of Sacramento Construction Improvement Standards (SCIS) for design and construction criteria for new developments within the City. The standards include specifications on pipe, manhole, cleanout, and sewer lateral materials and construction methods (including acceptable methods for sewer taps), as well as sewer line testing (exfiltration or air), acceptance, final inspection by CCTV, and abandonment of existing sewer mains. These requirements will provide reasonable assurance that sewers constructed to these specifications will perform adequately with minimal infiltration or maintenance problems and will maintain their structural integrity for the duration of their intended useful lives.

These specifications will also apply to sewer pipeline rehabilitation and repair projects. Additional specifications related to sewer rehabilitation and repair will be added as needed when such projects are implemented by the City, or will be included in project-specific specifications.

The City has currently hired Carollo Engineering to complete a new Sewer Master Plan to evaluate current as well as future sewer line and lift station needs. The City has eleven (11) lift stations that are included as part of the Sewer Master Plan. The City has also hired Kennedy Jenks Engineering for new design of the City's main lift station that receives all of the City's sewage and pumps it to the wastewater treatment plant. Design standards and construction specifications for lift stations will be developed as needed on a project-specific basis for any new lift stations or lift station rehabilitation projects as implemented.

For the City of Galt, all design, construction, and materials shall be in accordance with the latest editions of the Sacramento County Improvement Standards and Standard Construction Specifications except where modified by the City of Galt Improvement Standards. The specifications are located in appendix D of the SSMP and can also be found on the City of Galt website at the following link: <http://www.ci.galt.ca.us/site/Depts/PublicWorks/EngineeringServices/EngineeringServices>.

## **Element 6:**

# **OVERFLOW EMERGENCY RESPONSE PLAN**

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The section of the SSMP provides an overview and summary of the City's emergency response documents and procedures for sewer overflows. Complete documentation of overflow response procedures are attached in Appendix E. This section fulfills the Overflow Emergency Response Plan requirement of both the RWQCB (Element 3) and the SWRCB (Element 6) SSMP requirements.

### **6.1 Regulatory Requirements for Overflow Emergency Response Plan Element**

The summarized requirements for the Overflow Emergency Response Plan element of the SSMP are as follows:

#### **RWQCB Requirement:**

The collection system agency must develop an Overflow Emergency Response Plan (OERP) that provides procedures for SSO notification, response, reporting, and impact mitigation. The response plan should be developed as a stand-alone document and summarized in the SSMP.

#### **SWRCB Requirement:**

The collection system agency 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:

- Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
- A program to ensure appropriate response to all overflows; Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, regional water boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the Monitoring and Reporting Program (MRP). All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDR or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;
- Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;
- Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and
- A program to ensure that all reasonable steps are taken to contain untreated wastewater and prevent discharge of untreated wastewater to waters of the United States and 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.

## **6.2 Element 6 Appendix**

Supporting information for Element 6 is included in Appendix E. This appendix includes the following documents:

1. Public Works Department Sanitary Sewer Overflow Response Plan (SORP)
2. Streets Division Sanitary Sewer Overflow Response Field Guide
3. Standard Operating Procedures for Sewer Pump Station Failure

## **6.3 Overview of Sewer Overflow Response Documents**

The City has three separate documents that define procedures or guidelines for responding to sewer overflows or other sewer-related emergencies (e.g., stoppages or sewer lift station failures).

The Sanitary Sewer Overflow Response Plan (SORP) has been adopted as a general policy of the City's Public Works Department and provides the overarching overflow emergency response procedures from the receipt of a sewer overflow complaint, through response and cleanup, to reporting of the overflow to the appropriate government agencies. This document is relevant to anyone involved in the overflow response process, including the person initially receiving information about SSOs, the response field crew and supervisor, the person responsible for submitting overflow reports, and other emergency responders who could potentially be involved in the process (police and fire departments).

The Sanitary Sewer Overflow Response Field Guide adopted by the Public Works Department provides detailed response procedures to the first responder and field crew responsible for identifying the source of the problem, correcting the cause of the overflow, and cleaning the surrounding area. The guidelines also include forms that the responder needs to fill out. This document is most relevant to maintenance staff responsible for responding to overflows.

The Standard Operating Procedures for Sewer Pump Station Failure provides brief instructions on who to contact and how to respond in the case of a failure at any of the City's sewer lift stations. This document is most relevant to maintenance staff responsible for responding to a pump station failure.

The Sewer Overflow Response Plan and Overflow Response Operational Guidelines are summarized in the following subsections. These two documents and the Standard Operating Procedures for pump station failure are included in

Appendix E. These documents provide the procedures and guidelines necessary for fulfilling both the RWQCB and SWRCB emergency response plan requirements.

## **6.4 Summary of Sanitary Sewer Overflow Response Plan**

The City's overflow response plan is divided into seven sections, as follows:

- I. Response Plan Binder
- II. Field Guide
- III. Regulatory Notifications Packet
- IV. Field Sampling Kit
- V. Sewer Backup Packet
- VI. Sanitary Sewer Overflow Packet
- VII. Miscellaneous (Public Posting, Door Hangers, Sewer Spill Reference Guide)

Objectives of the City's SORP are to protect public health and the environment, satisfy regulatory agency requirements, and minimize risk of enforcement actions against the City. Additional objectives include providing appropriate customer service and protecting City personnel, the collection system and facilities, and private and public property.

### **Initial Notification and Response**

- A. *Receiving a Sewage Overflow/Backup Report:* This subsection provides the contact numbers and chain of communication for receiving overflow reports, including pump station failures. This subsection also details the information that should be obtained regarding the overflow. Refer to Element 2 (Organization) of this SSMP for a flow chart depicting the chain of communication.
- B. *Dispatch of Appropriate Crews to Site of Sanitary Sewer Overflow:* This subsection details protocols for dispatching appropriate crews and equipment and discusses additional communication between the response crew and supervisors. Guidelines for completing and documenting a preliminary damage assessment are provided, and coordination with any hazardous material response is explained.
- C. *Overflow Correction, Containment, and Clean-Up:* This subsection is located in the field guide and describes the responsibilities of the response crew while on-site. Upon arrival, the crew is responsible for determining the cause of the overflow, assessing the need for additional equipment or assistance, and taking immediate steps to stop the overflow. This subsection also discusses measures that should be taken for containment, sampling and site cleanup. For more detailed information on the actual methods for containing an

overflow, removing a blockage, and cleaning up a site, response crews should refer to the Sanitary Sewer Overflow Packet.

- D. *Overflow Report:* The Streets Field Supervisor or first responder is responsible for submitting an overflow report to the Streets Superintendent. This subsection details the information to be included in the report, including indication whether the overflow reached surface waters, start and stop time of the overflow, overflow volume, and damage assessment.

Officials receiving immediate notification of the SSO vary depending on the size of the spill and whether or not the spill contains hazardous materials, affects surface waters, or has the potential to impact human health. Table 6-1 lists these officials, and the circumstances under which they are notified immediately.

**Table 6-1. Officials Receiving Immediate Notification of SSOs**

Contact	Circumstance for Immediate Notification
Streets Field Supervisor	All spills
Streets Superintendent	Major spills, or those affecting surface water or human health
Public Works Director	Major spills, or those affecting surface water or human health
Cosumnes CSD (Fire Department)	Spills involving hazardous materials
Sacramento County Department of Environmental Health	Spills that may impact human health
State Office of Emergency Services	Major spills (greater than 1,000 gallons), or those affecting surface water or human health.
Regional Water Quality Control Board	Major spills (greater than 1,000 gallons), or those affecting surface water or human health. (within 2 hours)

**Public Notification**

Sections IV (Public Advisory Procedures) and VI (Media Notification) of the plan discuss circumstances under which the public should be notified of an SSO and establish responsibilities for posting notices or contacting the media. Potential public notification measures include temporary signage to indicate any polluted surface water or groundwater due to an SSO and notification through media outlets. The Streets Superintendent is responsible for determining whether

temporary signage and further notification are necessary. The Director of Public Works is the contact person for all media notification.

### **Agency Reporting**

Section III of the response plan detail reporting requirements to the RWQCB and the State Office of Emergency Services (OES). Criteria for immediate reporting versus 10-day reporting are specified per RWQCB requirements, and the section includes a decision-making flowchart.

### **Distribution, Updates, and Training**

Field Guides are in all of the Streets Division service vehicles, along with packets to be used for either a sewer backup into a home or business or a sewer overflow. These packets provide the first responder detailed instructions from initial contact, through final remediation. The packets include a chain of custody form and are given to the Streets Superintendent when completed for regulatory notification.

Staff receives training on Emergency Overflow Response Plan annually, along with other training pertaining to the sanitary sewer collection system. The City provides training in- house. The City also uses outside sources, such as the CWEA for training throughout the year.

The Plan is reviewed and updated annually to update contact information and any changes in regulatory requirements.

## **6.5 Sanitary Sewer Overflow Response Operational Guidelines**

The SSO Response Operational Guidelines are a collection of flowcharts, forms, and detailed response procedures directed at first responders and response crews. The Guidelines are divided into two main sections. The first section includes procedures and forms for responding to a sewer backup into a home or business, and the second includes procedures and forms for responding to an SSO in a public street.

### **Sewer Backup into Home or Business**

As discussed earlier, this section is contained in a packet and includes flow charts to determine the source of the backup, instructions on filling out the appropriate forms, and tips for communicating effectively with homeowners. Forms to be filled out include a first responder form, which describes the location of the backup and provides an initial damage assessment, building history form, and lateral TV report. This section also includes a claim letter and form to provide to the homeowner or property manager.

### **Sanitary Sewer Overflows**

This section is also contained in a packet and includes procedures and instructions for containment, blockage clearing, and area cleanup for a SSO. Guidelines for estimating spill volume, as well as the reporting form to be filled out are also included.

## **Element 7:**

# **FATS, OILS, AND GREASE (FOG) CONTROL PROGRAM**

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This section of the SSMP discusses the City's Fats, Oils, and Grease (FOG) control measures, including identification of problem areas, focused cleaning, and source control. This section fulfills the FOG Control requirement for both the RWQCB (Element 4) and the SWRCB (Element 7) SSMP requirements.

### **7.1 Regulatory Requirements for FOG Control Element**

The requirements for the FOG Control element of the SSMP are summarized below:

#### **RWQCB Requirement:**

The City must evaluate its service area to determine whether a FOG control program is needed. If so, a FOG control program shall be developed as part of the SSMP. If the City determines that a FOG program is unnecessary, proper justification must be provided.

#### **SWRCB Requirement:**

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

- (a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;
- (b) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;
- (c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;
- (d) Requirements to install grease removal devices (such as traps or interceptors) design standards for the grease removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;
- (e) Authority to inspect grease producing facilities, enforcement authorities, and whether the City has sufficient staff to inspect and enforce the FOG ordinance;
- (f) An identification of sewer system sections subject to FOG blockages and establish a cleaning maintenance schedule for each section; and
- (g) Development and implementation of source control measures, for all sources of FOG discharged to the sewer system, for each sewer system section identified in (f) above.

## **7.2 Element 7 Appendix**

Supporting information for Element 7 is included in Appendix F. This appendix includes the following documents:

1. List of food facilities in Galt (potential grease dischargers)
2. “Preventing Sewer Backups” public outreach brochure.
3. Residential FOG public outreach poster.
4. List of sewers cleaned on a 30-day schedule, with FOG lines indicated.
5. List of sewers cleaned on a 90-day schedule, with FOG lines indicated.

## **7.3 FOG Control Discussion**

The City has determined that a FOG control program is necessary per SSMP requirements. Operations and Maintenance staff have noted the tendency for grease buildup in specific sewer lines in residential areas. This section discusses measures the City takes to control FOG. The City’s FOG control program consists of focused cleaning and maintenance as well as source control. The following subsections discuss identification and cleaning of grease-prone areas, legal authority to prohibit grease discharge or require a grease removal device, facility inspection, and public outreach.

### **Identification and Sewer Cleaning**

The core means of FOG control utilized by the City is identification of trouble spots or sewer lines that are likely prone to grease accumulation and targeted cleaning of these areas on 30 or 90 day schedules and chemical root control measures to inhibit the growth of roots where grease may accumulate.

- a. Identification of Grease Problem Areas: The City identifies potential grease problem areas by tracking locations and causes of dry weather blockages and SSOs. For instance, in reporting year 2008, three of the City’s five SSOs were attributed to “grease.” Additionally, debris type and severity are noted by maintenance crews during routine focused cleaning.
- b. Focused Cleaning: Approximately 34,000 lineal feet of sewers (11% of the system) is included in the focused cleaning program specifically for FOG control, with cleaning on a 30 or 90 day schedule. Cleaning frequency depends on the history of stoppages or overflows on a line, as well as areas expected to be prone to grease buildup. Table 7-1 summarizes the total length of sewers cleaned for grease control by frequency. The City’s older areas have less than adequate slope, which allows FOG to build up; therefore, lines in this area are cleaned on either a 30-day or a 90-day schedule.

**Table 7-1. Length of Sewers in Focused Cleaning Program for FOG Control**

Cleaning Frequency (days)	Length (feet)
30	6,300
90	27,500
<b>Total (feet)</b>	<b>33,800</b>
Total (feet/year)	185,600

The City's Maintenance Division maintains tables of each manhole to manhole reach scheduled for focused cleaning. These tables are also used as cleaning logs on which maintenance workers note the date and time of flushing, as well as the debris type and severity.

The focused cleaning program also includes additional lines that are cleaned for reasons other than FOG. Additional information on this program about cleaning and maintenance, including a figure showing all lines in the program, is included in Element 4: Measures & Activities.

### **Legal Authority**

Legal measures available to the City to control sources of FOG include the following:

- Authority to prohibit discharges
- Requirement of grease removal device
- Enforcement measures, as appropriate

1) Legal authority to prohibit discharges. Article 14.20.030 of the GMC prohibits grease disposal, as follows:

No person shall discharge or cause to be discharged to a public sewer within the city any of the following described substances, materials, waters, or wastes without first obtaining a written wastewater discharge permit issued by the Director pursuant to this article that specifically permits such waste discharge characteristics:

- A. Any water or waste which contains more than two hundred (200) milligrams per liter of fat, oil or grease. The limitation of hexane soluble materials shall not apply to those waste waters from industries processing fats and oils of vegetable or animal origin for which the industry involved supplies at its own expense, satisfactory evidence that the waste waters are transportable in the sewers without causing obstructions to the flow.
- B. Any waters or wastes containing strong acid iron pickling wastes, or concentrated plating solutions whether neutralized or not.

- C. Materials, which exert or cause in the sewerage system or receiving waters unusual concentrations either of inert suspended solids (such as but not limited to, soil solids, fuller's earth, lime slurries, lime residues, plastics or ash);
  - D. Wastewaters from pre-treatment and remediation processes.
  - E. Discharges containing phenols or other taste-producing and odor-producing substances in concentrations exceeding limits which may be established by the director as necessary to meet water quality requirements;
  - F. Slug discharges into the collection system at temperatures exceeding one hundred forty degrees fahrenheit (sixty degrees celsius) or exceeding one hundred ten degrees fahrenheit (forty-three degrees celsius) for any eight-hour period;
  - G. Discharges containing fixed total dissolved solids (such as, but not limited to, sodium chloride, sodium sulphate or other inorganic salts) in such quantities to cause the effluent total dissolved solids of the treatment plant to exceed five hundred milligrams per liter. (Ord. 2002-15, Added, 11/19/2002)
- 2) Requirement of grease removal device. Article 14.20.050 of the GMC provides for grease, oil, and sand interceptors, as follows:

Grease, oil, and sand interceptors shall be provided when, in the opinion of the director, they are necessary for the proper handling of liquid wastes containing grease in excessive amounts (generally waste containing in excess of one hundred fifty milligrams per liter of animal and vegetable origin or fifty milligrams per liter of mineral origin), or any flammable wastes, sand or other harmful ingredients; except that such interceptors shall not be required for private living quarters or dwelling units.

- A. All interceptors shall be of a type and capacity approved in writing by the Director, prior to installation, and shall be located as to be readily and easily accessible for cleaning and inspection.
- B. Grease and oil interceptors shall be constructed of impervious materials capable of withstanding abrupt and extreme changes in temperature. They shall be of substantial construction, watertight and equipped with easily removable covers which, when bolted in place, shall be gastight and watertight.
- C. Where installed, all grease, oil and sand interceptors shall be maintained by the owner, at his expense, in continuously efficient operation at all times. Records of all maintenance, cleaning and hauling of materials shall be maintained by the owner and such records shall be available at all times for inspection by city personnel.
- D. Materials collected shall not be reintroduced into the sewerage system. (Ord. 2002-15, Added, 11/19/2002)

- 3) Enforcement. Article 14.10.130 of the GMC provides for enforcement as follows:

The Director shall enforce the provisions of this Chapter and he shall have the right at all times to inspect the operation of any sewer connection. Violation of any of the provisions of this Chapter is unlawful and an offense. Each day during which any violation of the provisions of this Chapter exists shall be deemed a separate and distinct violation. Such violations shall be punishable as provided by Chapter 21.01 of Title 21. (Ord. 2006-07, Amended, 06/06/2006; 2002-14, Added, 11/19/2002)

### **Facility Inspection**

Article 14.04.090 of the GMC provides the authority to inspect as follows:

The Director shall have the right at all times to inspect the operation of any sewer connection. The Director and other duly authorized employees of the city bearing proper credentials and identification shall be permitted to enter all properties with the occupant's consent for the purposes of inspection, observation, measurement, sampling, and testing in accordance with the provisions of this Title. If consent is not obtained, inspection may be accomplished as provided for by law. The Director or the Director's representatives shall have no authority to inquire into any processes including metallurgical, chemical, oil, refining, ceramic paper, or other industries beyond that point having a direct bearing on the kind and source of discharge to the sewers or waterways or facilities for waste treatment. (Ord. 2002-13, Added, 11/19/2002)

### **Public Outreach**

The City utilizes the Sacramento Regional County Sanitation District's resources. Resources will be displayed at various City owned buildings. The City has launched a new website. Links to the Sacramento Regional County Sanitation District Fats, Oils and Grease Program, SRCSD Fats, Oils and Grease Program are provided additionally, sewer maintenance staff will provide information to residents who are affected by a blockage or backup.

**Table 7-2.  
 Summary Table With Respect to Possible FOG Elements Identified by the State**

State Element	Galt (December 2008)
(a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG	Residential FOG is currently identified as the major SSO factor. The City of Galt is updating the City's website and will include information on FOG control. The City is developing a brochure to educate the public about FOG control. The brochure will be inserted in future utility billings and be placed on the City website
(b) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area	Facilities for restaurant-generated FOG are the responsibility of the private contractors hired by each individual customer. Residents are encouraged to dispose of FOG by depositing in their solid waste refuse containers.
(c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG	The City of Galt FOG program includes adequate legal authority to prohibit discharges and to identify measures to prevent SSOs and blockages from FOG.
(d) Requirements to install grease removal devices (such as traps or interceptors) design standards for the grease removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements	Galt has an ordinance that requires grease interceptors at the Directors discretion for all new food service facilities.
(e) Authority to inspect grease producing facilities, enforcement authorities, and whether the City has sufficient staff to inspect and enforce the FOG ordinance	Galt has adequate authority.
(f) An identification of sewer system sections subject to FOG blockages and establish a cleaning maintenance schedule for each section	Over the past several years, Galt has identified sewer sections subject to FOG and has an on-going regular maintenance schedule for all of these sections. Galt will continue to address any newly defined section subject to FOG in the same manner.
(g) Development and implementation of source control measures, for all sources of FOG discharged to the sewer system, for each sewer system section identified in (f) above	At this time, the cleaning schedule appears sufficient to prevent FOG overflows. Necessary updates will be identified during the required bi-annual review and update.

## **Element 8: CAPACITY MANAGEMENT**

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This section of the SSMP discusses the City's capacity management measures, including the most recent Master Plan and recommended capacity improvement projects. This section fulfills the Capacity Management SSMP requirement for the RWQCB (Element 8) and the System Evaluation and Capacity Assurance Plan SSMP requirement for the SWRCB (Element 8).

### **8.1 Regulatory Requirements for Capacity Management Element**

The requirements for the Capacity Management element of the SSMP are summarized below.

#### **RWQCB Requirement:**

The RWQCB Capacity Management requirement is divided into two sections:

(a) Capacity Assessment: The wastewater collection system agency shall establish a process to assess the current and future capacity requirements for the collection system facilities. The SSMP should describe whether a current capacity assessment has been prepared, and if not, provide a schedule of activities for completing an assessment.

(b) System Evaluation and Capacity Assurance Plan: The wastewater collection system agency shall prepare and implement a capital improvement plan to provide hydraulic capacity of key sewer system elements under peak flow conditions. Once the capacity assessment described in (a) above has been completed, a capital improvement program must be implemented to address any capacity needs. The SSMP should briefly describe the capital improvements anticipated and be updated as implementation occurs and priorities change.

#### **SWRCB Requirement:**

The wastewater collection system agency shall prepare and implement a capital improvement plan that will provide hydraulic capacity of key sewer system elements under peak flow conditions. This plan must include:

- a. Evaluation: The agency must identify actions needed to evaluate those portions of the sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows, estimates of the capacity of key system components, hydraulic deficiencies, 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, the agency should undertake the evaluation identified in (a) above to establish appropriate design criteria.
- c. Capacity Enhancement Measures: The agency must identify the steps needed to establish a short- and long-term capital improvement plan (CIP) to address identified hydraulic deficiencies including prioritization, alternative analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities.

The CIP shall include an implementation schedule and shall identify sources of funding. (d) Schedule: The agency shall develop a schedule of completion dates for all portions of the CIP developed in (a) through (c) above. This schedule shall be reviewed and updated at least every five years.

## **8.2 Element 8 Appendix**

Supporting information for Element 8 is included in Appendix G. This appendix includes the following document:

1. Capacity Analysis
2. Gap Analysis
3. Schedule of Proposed Sewer Capital Improvement Projects for five FYs.

## **8.3 Capacity Evaluation Discussion**

In October 2005, Boyle Engineering completed a comprehensive Collection System Capacity Analysis to assess the capacity of the City of Galt's existing sanitary sewer system and provide planning for future expansion. This Capacity Analysis includes a capacity evaluation and identifies capacity-related improvement projects. The Collection System Analysis is a separate document from this SSMP; the analysis summarizes key capacity-related portions of the Collection System.

The Capacity analysis is located in appendix G of the SSMP and can also be found on the City's website at the following link: <http://www.ci.galt.ca.us/site/Depts/PublicWorks/WasteWaterServices/WastewaterServices.php>. The capacity assessment was completed as part of the City's Sewer Master Plan based on hydraulic modeling of the City's collection system under current and future design flows. Included in appendix G is a summary of the modeled system, flow estimates, and evaluation criteria used for the City's sewer system capacity evaluation. Note that the City has not experienced any sanitary sewer overflows due to hydraulic deficiencies in the sewer system. Likewise, modeling of the City's sewer system conducted during the preparation

of the 2005 Collection System Analysis also showed no overflows due to hydraulic deficiencies.

### **Hydraulic Model**

As a part of the City's Collection System Analysis, a hydraulic model was developed using InfoSewer-Pro by MWH Soft to evaluate existing and future system capacity. The model was used to identify sewer network, sewer pipe characteristics, flow loading factors, and other necessary criteria for capacity analysis.

Nearly all of the City's 66 miles of sewer pipes, ranging in size from 6 to 24 inches in diameter, were included in the model. The City's eleven (11) lift stations were included in the model, and the pump station capacities were evaluated to estimate flows during dry weather and peak flows to determine whether or not the pump stations had adequate capacity.

### **Flow Estimates**

The City of Galt's Wastewater Collection System Capacity Analysis Phase1 provides a complete discussion of the model flow estimates. Existing and future flows were estimated based on the City's General Plan, Collection System mapping, residential housing as-built drawings, and existing conditions of sewer pipes in the ground. A summary evaluation of sewer line and lift station model results are included in appendix G. Refer to Chapter 4 of the Wastewater Collection System Capacity Analysis for a complete discussion of the model flow estimates.

Current and future average daily base wastewater flows are summarized in Table 8-1. There are a total of six scenario created for the model to analyze the sewer system's capacity. For simplicity, the six scenarios of the models are labeled as follows:

Scenario A1 is ADWF for the existing developments of the City. This flow is the average daily flow without including infiltration and inflow (I/I) or multiplying by a peaking factor. It is simply the total flow collected from the collection system.

Scenario A2 is ADWF for build out conditions. Then average daily flow is calculated similar to scenario A1; however, it included the planned build-out of all developments within the City's limits.

Scenario B1 is PWWF for existing developments. This flow is the total of ADWF multiplied by and average 2.0 peaking factor, plus an I/I multiplier of 1,200 gpd/acre.

Scenario B2 is PWWF for build out condition. This scenario is similar to B1. However, they include planned build-out developments within the City’s limits.

Scenario C1 is PDWF for existing conditions. Peak Dry Weather Flow, which considered as the daily peak hourly flow, is the product of ADWF multiplied by a 2.0 peaking factor without including I/I.

Scenario C2 is PDWF for future conditions, which include all planned build-out within the City’s current limits.

**Table 8-1. Average Daily Flow Projections\***

Scenario Label		Build Out Flow (mgd)
A1	ADWF - Existing	2.3
A2	ADWF - Future	3.5
B1	PWWF - Existing	9.1
B2	PWWF - Future	11.9
C1	PDWF - Existing	4.2
C2	PDWF - Future	6.1

\*Information from the City of Galt Wastewater Collection System Capacity Analysis (Nov. 2005)

**Capacity Evaluation Criteria**

Flow Criteria: System capacity was evaluated under all existing and future flow scenarios, including both peak dry and wet weather flows.

Pipe Criteria: The primary factor used in identifying the capacity deficiency of a sewer main is the flow depth of the pipe. Sacramento County Improvement Standards (SCIS) specify the maximum depth of flow at design conditions in any collector 12” diameter or less shall be 0.70 of the pipe diameter. However, lines larger than 12” diameter may be designed to flow full unless direct sewer service connections (from households) are planned; in which case the 0.70 diameter maximum depth shall govern.

Lift Station Criteria: Evaluation is based on Peak Wet Weather Flow, assuming that all lift station pumps are operating at one time. Such assumed conditions, however, have not been experienced frequently at the City’s lift stations.

## Capacity Evaluation Results

The capacity evaluation identifies gravity sewer sections and lift stations with insufficient hydraulic capacity under current or future peak wet weather flow conditions. For a complete discussion, refer to Chapter 5 of the City of Galt Wastewater Collections System Capacity Analysis.

## 8.4 Recommended Capacity Projects

This section discusses criteria used to size replacement pipes and summarizes the recommended capacity improvement projects. Refer to Chapter 6 of the Capacity Analysis for a complete discussion of the capacity evaluation recommendations.

### Design Criteria

Criteria include installing parallel lines or replacing existing lines. In all cases the minimum pipe size for replacement will be 10" and are designed to for flow less than 0.7e/D ratio at PWWF.

### Recommended Capacity Improvements

Prioritization has been divided into six categories. All sewer lines designated for upgrade are designed to meet future PWWF. They are as follows:

Priority 1 Sewer Lines – Smaller Sewer Lines flow full at existing PDWF.

Priority 2 Sewer Lines – Smaller Sewer Lines flow full at existing PWWF.

Priority 3 Sewer Lines – Smaller Sewer Lines flow less than full but higher than 0.7 e/D ratio at existing PWWF.

Priority 4 Sewer Lines – Larger Sewer Lines designed to flow full at existing PWWF.

Priority 5 Sewer Lines – Sewer mains 12' or larger that are not full at existing PWWF.

Priority 6 Sewer Lines – Sewer mains that will flow full or higher than 0.7d/D ratio at future PWWF.

Refer to Chapter 6 (System Improvements) in the Wastewater Collection System Capacity Analysis for prioritization tables.

## 8.5 CIP Schedule

Refer to Appendix G for the 5-year schedule of sewer capital improvements. Element 8 will be updated upon completion and implementation of the new sewer master plan. The City plans to update the CIP every five years.

## **Element 9:**

# **MONITORING, MEASUREMENT & PROGRAM MODIFICATIONS**

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This section of the SSMP discusses parameters the City tracks to monitor the success of the SSMP and how the City plans to keep the SSMP current. This section fulfills the Monitoring, Measurement, and Program Modifications requirement for both the RWQCB (Element 9) and the SWRCB (Element 9) SSMP requirements.

### **9.1 Regulatory Requirements for Monitoring, Measurement & Program Modifications Element**

The requirements for the Monitoring, Measurement and Program Modifications element of the SSMP are summarized below:

#### **RWQCB Requirement:**

The City must monitor the effectiveness of each SSMP element and update and modify SSMP elements to keep them current, accurate, and available for audit as appropriate. The SSMP should discuss performance indicators to be tracked and a description of how the City plans to keep the SSMP up-to-date.

#### **SWRCB Requirement:**

The City shall:

- Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;
- Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;
- Assess the success of the preventative maintenance program;
- Update program elements, as appropriate, based on monitoring or performance evaluations; and
- Identify and illustrate SSO trends, including: frequency, location, and volume.

### **9.2 Element 9 Appendix**

Supporting information for Element 9 will be included in Appendix H. This appendix will include the Element 9: SSMP Monitoring Tracking Sheet.

### **9.3 Monitoring and Measurement Discussion**

The City already tracks several performance measures through tracking logs and annual reports, including but not limited to number, cause and location of stoppages; number, cause, location, and volume of SSOs; stoppage response time; number and reason for customer complaints; length of pipe cleaned and type of debris found. The City plans to continue tracking all performance measures that are currently tracked.

In order to monitor the effectiveness of the SSMP, however, the City has selected certain, specific parameters that can be documented and compared on an annual basis in a simple format. These parameters were selected because they are straightforward, quantitative, and focused on results. Although the parameters may not track everything associated with SSMP implementation, changes in these parameters over time will indicate the overall success of the SSMP or, conversely, underlying problems that can then be investigated further.

Table 9-1 lists each SSMP element, the overall purpose of the SSMP element, and the specific parameters that the City plans to track that will help in evaluating the effectiveness of the SSMP. Appendix H includes a tracking sheet listing each of these parameters, which the City will fill out annually in conjunction with completing the SSMP audit (Element 10).

**Table 9-1. SSMP Monitoring Parameters, by SSMP Element**

<b>SSMP Element</b>	<b>Summary of Element Purpose</b>	<b>Parameters for Tracking Effectiveness (Annually)</b>
Goals	Establish priorities of City and provide focus for City staff	<ul style="list-style-type: none"> <li>• Monitor frequency of SSO's</li> </ul>
Organization	Document organization of City staff and chain of communication for SSO response	<ul style="list-style-type: none"> <li>• Update annually, make necessary changes</li> </ul>
Overflow Emergency Response	Provide timely and effective response to SSO emergencies and comply with regulatory reporting requirements	<ul style="list-style-type: none"> <li>• Average and maximum response time</li> <li>• Percent of total overflow volume contained or returned to sewer</li> </ul>
Fats, Oils & Grease Control	Minimize blockages and overflows due to FOG	<ul style="list-style-type: none"> <li>• Number of blockages due to FOG</li> <li>• Number of overflows due to FOG</li> <li>• Number of FOG producing facilities inspected</li> </ul>
Legal Authority	Ensure the City has sufficient legal authority to properly maintain the system	<ul style="list-style-type: none"> <li>• Track effectiveness of current ordinances</li> </ul>

<b>SSMP Element</b>	<b>Summary of Element Purpose</b>	<b>Parameters for Tracking Effectiveness (Annually)</b>
Measures and Activities	Minimize blockages and SSOs by properly maintaining the system and keeping the system in good condition	<ul style="list-style-type: none"> <li>• Total number and volume of SSOs</li> <li>• Number of repeat SSOs (same location as any previous SSO, regardless of year of occurrence)</li> <li>• Total number of mainline blockages</li> <li>• Number of pump station failures</li> <li>• Number of pipe failures</li> <li>• Length of pipe CCTV'd</li> <li>• 3-yr backlog for rehabilitation and repair projects</li> </ul>
Design & Construction Standards	Ensure new facilities are properly designed and constructed	<ul style="list-style-type: none"> <li>• Follow Sacramento County and City of Galt Improvement Standards</li> </ul>
Capacity Management	Minimize SSOs due to insufficient capacity by evaluating system capacity and implementing necessary projects	<ul style="list-style-type: none"> <li>• Number of SSOs due to capacity limitations or wet weather</li> <li>• Date of completion of most recent capacity evaluation</li> <li>• 3-yr backlog for capacity improvement projects</li> </ul>
Monitoring, Measurement, & Program Modifications	Evaluate effectiveness of SSMP, keep SSMP up-to-date, and identify necessary changes	<ul style="list-style-type: none"> <li>• Track frequency of SSOs and customer complaints</li> </ul>
Program Audits	Formally identify SSMP effectiveness, limitation, and necessary changes on an annual basis	<ul style="list-style-type: none"> <li>• Date of completion of last annual audit</li> </ul>
Communication Plan	Communicate with the public and satellite agencies	<ul style="list-style-type: none"> <li>• Monitor effectiveness of public education</li> </ul>

The City will use the specific tracked parameters listed in Table 9-1 and documented on the tracking sheet included in Appendix H to assist in completion of the annual SSMP Audit described in Element 10. As noted above, the City will also continue to collect data for all performance measures currently tracked. This additional information that the City collects,

such as customer complaints and length of pipe cleaned, will be used to support or further evaluate the successes and limitations of the SSMP as needed.

#### **9.4 SSMP Modifications**

The SSMP needs to be updated periodically to maintain current information, and programs need to be enhanced or modified if they are determined to be less effective than needed. The City will review the successes and needed improvements of the SSMP as part of the SSMP annual audit, described in Element 10. City staff will update critical information, such as contact numbers and the SSO response chain of communication, as needed. A comprehensive SSMP update will occur every 2 years, as required by the SWRCB. The City will schedule this SSMP update to occur in conjunction with the Sanitary Sewer Master Plan Update.

This section of the SSMP discusses the City's SSMP auditing program. This section fulfills both the RWQCB (Element 10) and the SWRCB (Element 10) SSMP Audit requirements.

### 10.1 Regulatory Requirements for SSMP Audits Element

The requirements for the SSMP Audits element of the SSMP are summarized below:

#### **RWQCB Requirement:**

The City shall conduct an annual audit of their SSMP that includes any deficiencies and steps to correct them that are appropriate to the size of the City's system and the number of overflows. The City must submit a report of the audit to the RWQCB by March 15 of the year following the calendar year for which the analysis applies.

#### **SWRCB Requirement:**

The City shall conduct periodic internal audits appropriate to the size of the system and the number of SSO's. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the City's compliance with the SSMP requirements, including identification of any deficiencies in the SSMP and steps to correct them.

### 10.2 Element 10 Appendix

Completed SSMP audits are stored in Appendix I.

### 10.3 SSMP Audits Discussion

The City will complete audits of the SSMP each year, and will include a report on the audit with the annual SSO report to the RWQCB submitted by March 15. The audit will include the following:

- Review of progress made on development of SSMP elements
- Review of monitoring and measurement tracked under Element 9
- Identification of successes of implementing SSMP elements and needed improvements
- Description of system improvements during the past year
- Description of system improvements planned for the upcoming year, with an estimated schedule for implementation

Upon completion of the audit, the City will keep a report of the audit on file to fulfill the SWRCB audit requirement. A copy of each audit will be stored in Appendix I of the SSMP.

## **Element 11: COMMUNICATION PROGRAM**

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This section of the SSMP discusses the City's communications with the public and satellite agencies. This section fulfills the Communication Program requirement for SWRCB (Element 11). The RWQCB has no equivalent requirement.

### **11.1 Regulatory Requirements for Communication Program Element**

The requirements for the Communication Plan element of the SSMP are summarized below:

#### **RWQCB Requirement:**

None.

#### **SWRCB Requirement:**

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

### **11.2 Element 11 Appendix**

Supporting information for Element 11 is included in Appendix J.

### **11.3 Communication Program Discussion**

The City maintains a website (<http://www.ci.galt.ca.us>) to inform the public about City activities. The City's website is an effective communication channel for providing alerts and news to the public. The main page of the website provides important announcements, agendas and minutes for City Council meetings, and other key information for City residents. Various public works documents are published on the City's Public Works Department page of the website, including the City's most recent Sanitary Sewer Master Plan. The City plans to publish this SSMP on the City website. The completed SSMP will be certified by the City Council during a public City Council meeting. The City will also use the website to notify the public of important upcoming activities related to sewer system management.