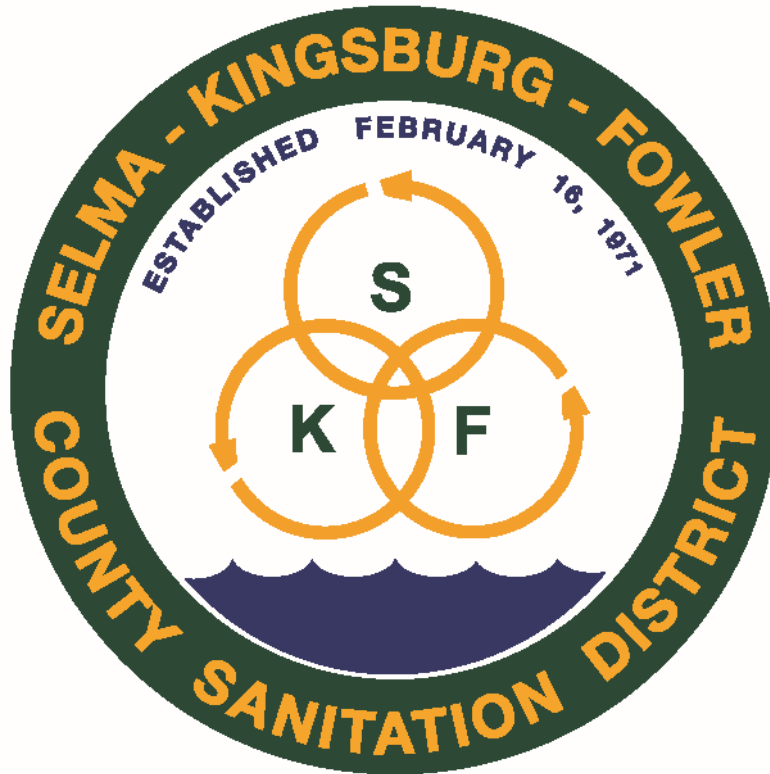


SEWER SYSTEM MANAGEMENT PLAN



SELMA-KINGSBURG-FOWLER COUNTY SANITATION DISTRICT

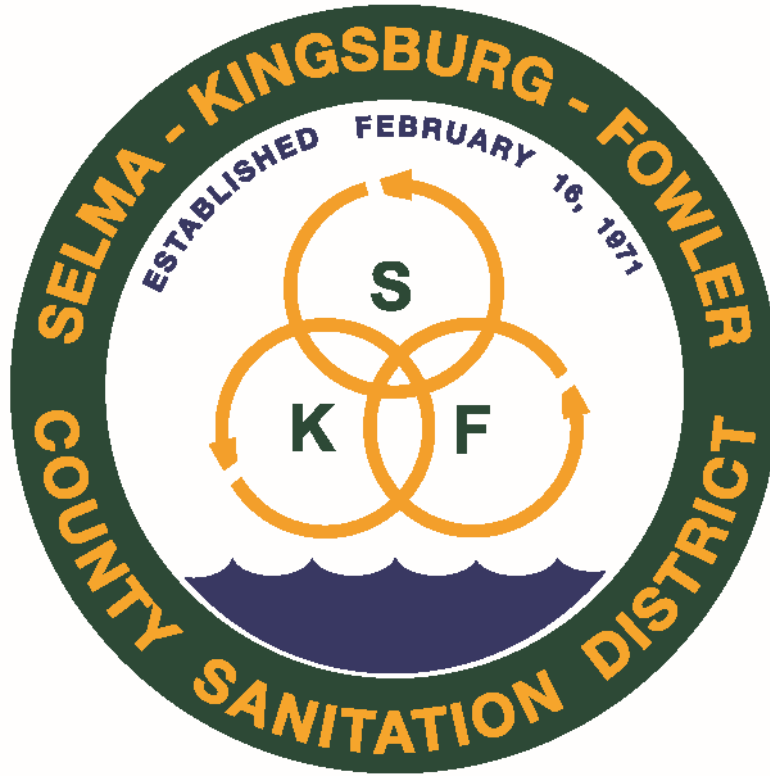
JULY 2025

BOARD APPROVAL DATE: _____

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SEWER SYSTEM MANAGEMENT PLAN



By: _____
Veronica Cazares, District Engineer

Date: _____



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Definitions and Abbreviations

Enrollee	District
BMP	Best Management Practice
CIP	Capital Improvement Plan
CIWQS	California Integrated Water Quality System
CMMS	Computerized Maintenance Management Software
CSRMA	California Sanitation Risk Management Authority
DASH	Desktop and Mobile Architecture for System Hardware
ESC	Emergency Service Call
FSE	Food Service Establishments
FOG	Fats, Oils, and Grease
GIS	Geographical Information System
GWDR	Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (Order No. WQ 2022-0103-DWQ, supersedes Order No. 2006-0003-DWQ)
MTIII	Maintenance Technician III
RWQCB	Regional Water Quality Control Board
Service Call (SC)	Communication of a possible sewer overflow from the public or other agencies, general inquiry, or odor complaint
SKF	Selma-Kingsburg-Fowler County Sanitation District
SOERP	Sewer Overflow Emergency Response Plan
SORP	Sewer Overflow Response Plan
SSMT	Sewerage System Maintenance Technician
SSO	Sanitary sewer overflow-any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system.



SSO Reporting System	Online spill reporting system that is hosted, controlled, and maintained by the State Water Board. http://ciwqs/waterboards.ca.gov
WWTP	Wastewater Treatment Plant



Acknowledgements

This SSMP was prepared with the assistance of key staff members at the District. The following staff members provided information and valuable input to the General Manager and Consultant, and their participation is appreciated:

Collections Supervisor Jimmy Floyd, Assistant Collections Supervisor Richard Westerling, Collections staff, Gabino Ortiz, Ernesto Rodriguez, Mark Gonzales, Joseph Barela, Jeff Ransom.



Section 1: Introduction and Goals

This Sewer System Management Plan (SSMP) has been prepared in compliance with the requirements of the State Water Resources Control Board (State Water Board) Statewide Water Discharge Requirements (WDRs) General Order for Sanitary Sewer Systems Order No. WQ 2022-0103-DWQ (General Order). The General Order serves as statewide WDRs and supersedes the previous State Water Board Order No. 2006-0003-DWQ and amendments thereafter. The General Order is enforceable by the State Water Board and Regional Water Quality Control Boards (Regional Water Boards). For the General Order, a sanitary sewer system includes, but is not limited to, a combination of pipelines, valves, lift stations, manholes, siphons, wet wells, diversion structures, and/or other auxiliary pertinent infrastructure, upstream of a wastewater treatment plant (WWTP) headworks.

Through the General Order, the State Water Board requires an Enrollee to:

- Comply with federal and state prohibitions of discharge of sewage to waters of the State, including federal waters of the United States.
- Comply with specifications, and notification, monitoring, reporting, and recordkeeping requirements in the General Order that implements the federal Clean Water Act (CWA), the California Water Code (CWC)², and water quality control plans and policies (including Regional Water Board Basin Plans) and policies.
- Proactively operate and maintain resilient sanitary sewer systems to prevent spills.
- Eliminate discharges of sewage to waters of the State through effective implementation of an SSMP.
- Monitor, track, and analyze spills for ongoing system-specific performance improvements.
- Report noncompliance with this General Order per reporting requirements.

An Enrollee is a public or private entity that has obtained approval for regulatory coverage under this General Order, including:

- A federal or state agency, municipality, special district, or other public entity that owns and/or operates one or more sanitary sewer systems:
 - Greater than one mile in length (each individual sanitary sewer system).
 - One mile or less in length where the State Water Board or a Regional Water Board requires regulatory coverage under this Order.



The General Order specifies the following requirements with respect to the Introduction section of the SSMP:

The goal of the SSMP is to provide a plan and schedule to: (1) properly manage, operate, and maintain all parts of the Enrollee's sanitary sewer system(s), (2) reduce and prevent spills, and (3) contain and mitigate spills that do occur.

The SSMP must include a narrative Introduction section that discusses the following items:

Regulatory Context. The SSMP Introduction section must provide a general description of the local sewer system management program and discuss SSMP implementation and updates.

Update Schedule. The SSMP Introduction section must include a schedule for the Enrollee to update the SSMP, including the schedule for conducting internal audits. The schedule must include milestones for incorporation of activities addressing prevention of sewer spills.

Sewer System Asset Overview. The SSMP Introduction section must provide a description of the Enrollee-owned assets and service area, including but not limited to:

- Location, including Cities.
- Service area boundary.
- Population and community served.
- System size, including total length in miles, length of gravity mainlines, length of pressurized (force) mains, and number of pump stations and siphons.
- Structures diverting stormwater to the sewer system.
- Data management systems.
- Sewer system ownership and operation responsibilities between Enrollee and private entities for upper and lower sewer laterals.
- Estimated number or percent of residential, commercial, and industrial service connections.
- Unique service boundary conditions and challenge(s).

The SSMP Introduction section must provide reference to the Enrollee's up to-date map of its sanitary sewer system.

This chapter presents an overview of the need for this SSMP. A list of abbreviations used in this SSMP has been provided to assist the reader to understand the information presented.

1.0 Regulatory Context

The SSMP is the guiding document for the proper operation, maintenance, and repair and refurbishment of the collection system for the District. It contains the eleven elements of the Statewide Sanitary Sewer Systems General Order 2022-0103-DWQ (December 6, 2022).

The SSMP will be rolled out to collection and support staff through District training and schedule as outlined in this document. The collection system staff and support departments are responsible for the following:



1. Collections: Overall operation and maintenance of the collections system, pump stations, and appurtenances.
2. Administration: Provides support to the collections staff.
3. Engineering: Ensures the proper installation of sewers, responsible for capital plan, development inquiries and requirements.
4. Laboratory: Assists in the District’s pretreatment program and source control.

1.1 Sewer System Management Plan Element Update Schedule

Table 1-1 is the S-K-F schedule to update their SSMP, conduct internal audits, annual submittals and review of service area boundary map. In addition, the Table 1-1 schedule has milestones for incorporation of activities addressing prevention of sewer spills and completing areas of the SSMP that are deficient.

Table 1-1 SSMP Schedule⁽¹⁾

TASKS	FREQUENCY	DUE DATE
Annual Report	Annually	April 1, 2026
Sanitary Sewer System Service Area Boundary Map ⁽²⁾	Annually	December 31, 2025
SSMP Update	Six Years	August 2, 2025
SSMP Audit	Three Years	August 2, 2027 ⁽³⁾
SSMP Audit	Three Years	August 2, 2030 ⁽⁴⁾
SSMP Update	Six Years	August 2, 2031
Retroactively complete SSMP audit for 8/2015, 8/2019, 8/2021	One Time	December 1, 2027

Notes:

⁽¹⁾ Sources: Section 5.4 of the General Order; Section 3.11 of Attachment E1 of the General Order.

⁽²⁾ See Figure 1-1

⁽³⁾ Audit Period: August 2, 2024 to August 2, 2027

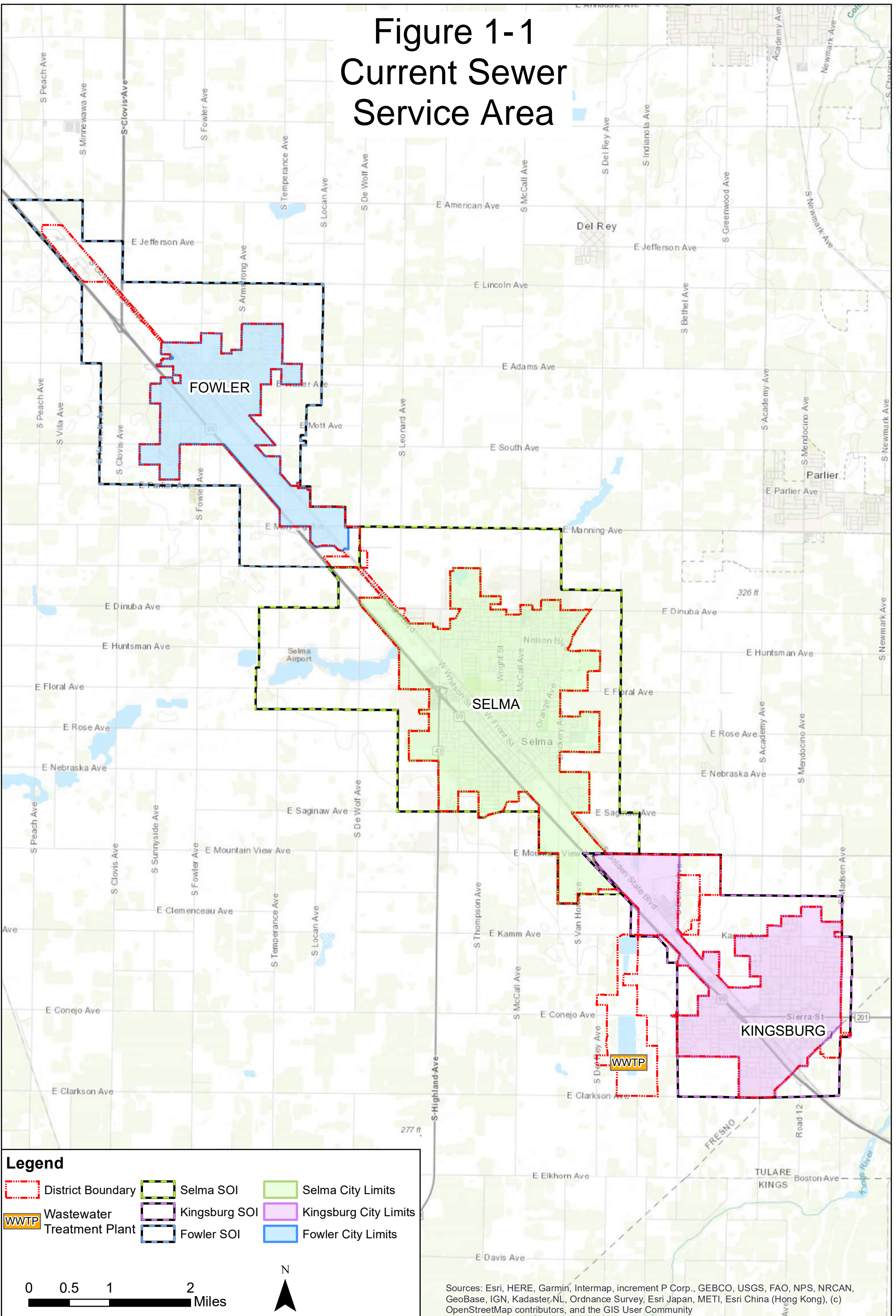
⁽⁴⁾ Audit Period: August 2, 2027 to August 2, 2030

1.2 Sewer System Asset Overview

The S-K-F County Sanitation District is a public agency formed in February, 1971 by the Fresno County Board of Supervisors through authority granted in the County Sanitation Districts Act and the Health and Safety Code of the State of California. The purpose of this special district is to provide for the collection, treatment and disposal of wastewater emanating from the residential, commercial, institutional and industrial dischargers within the service area. The District serves the cities of Selma, Kingsburg, and Fowler, which comprise a population of approximately 44,000. Figure 1-1, titled Current Sewer Service Area¹; excerpted from the Sewer System Master Plan outlines the District’s location and current service area.

¹ Sewer System Master Plan March 2025

Figure 1-1 Current Sewer Service Area



- Legend**
- District Boundary
 - Selma SOI
 - Selma City Limits
 - Wastewater Treatment Plant
 - Kingsburg SOI
 - Kingsburg City Limits
 - Fowler SOI
 - Fowler City Limits

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster,NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



1.2.1 City of Selma

Situated at the center of the District's service area, the City of Selma is located at the crossroads of State Routes 99 and 43. The primary industry in Selma is agricultural followed by forestry and commercial industries. The population estimate, as of April 1, 2020, is 24,430 and has a total area of 5.81 sq. miles, per U.S. Census data.

1.2.2 City of Kingsburg

Located at the southern boundary of Fresno County, the City of Kingsburg serves as the southernmost city within the District's service area. Similar to the primary industry in Selma, the Kingsburg economy revolves heavily around agriculture. As of April 1, 2020, the US Census reports the population for the City of Kingsburg at 12,380 persons and covers an area 2.83 sq miles.

1.2.3 City of Fowler

The City of Fowler, located approximately eleven miles south of Fresno city, is the northern most city serviced by the District. Similar to Selma and Kingsburg, Fowler has a strong agricultural industry with several heavy industrial agricultural processing facilities in the Northwest corner of the city. The population estimate as of April 1, 2020 according to US Census, is 7,154, and the total land area covered by the city is 2.53 sq. miles. By population and land area, Fowler is the smallest of the three member cities served by the District.

1.2.4 District-Owned and City-Owned Facilities

It is important to differentiate between District-owned and City-owned facilities in this SSMP. The District owns the wastewater treatment plant and certain surrounding property, the "interceptors" and four District pump stations. Each city owns its local sewer collection system, which includes sewers, pump stations and appurtenances not owned by the District. Through a service agreement with each of the member cities the District operates and maintains, refurbishes and replaces, each city's facilities to the extent that funds are available. Each city is responsible for expanding the facilities that it owns.

The District-owned facilities include four pump stations, Merced, Manning, North, and 18th Avenue. The District interceptor from 1) Merced Avenue PS to the Manning Avenue PS to Amber Avenue into the WWTP, 2) from Simpson to Conejo; Conejo to the north side of the WWTP, 3) from Clarkson and McCall Avenues to the south side of the WWTP and the WWTP located at 11301 E Conejo Avenue, Kingsburg CA.

1.2.5 System Characteristics

Collectively, the collection and conveyance system includes approximately 174 miles of gravity sewer, 3.5 miles of force main, and 24 lift stations. The District maintains a [collection system map book](#) showing the collections system, sewer manholes, pump stations, pipe material, and pipe size.



There is an estimated 11,870 service connections, 96% are residential, 4% commercial and industrial.

1.2.6 Sewer Laterals

The District is responsible for the approval of construction plans and inspection of all public sewer lines and service laterals within the public right of way and in dedicated easements. Sewer laterals are a part of the collection system that transports wastewater to the main sewer and is composed of the upper lateral and lower lateral. The lower lateral is the portion of the sewer within a public street, right of way, and/or easement connecting the upper lateral to the sewer main. The upper lateral is any sewer or drain beginning at the plumbing or drainage outlets of any buildings and running to the property line.

Repair and replacement of service laterals in the public right of way is the responsibility of the District. Any maintenance and cleaning of the complete service lateral is the property owner's responsibility ([Ordinance 2014-03](#), Section 402. Construction Requirements, as amended).

Sewer service laterals shall be maintained by the owner of the property served thereby. The owner's responsibility shall include repair and replacement of the upper lateral, including the cleanout. The District Inspector shall be responsible for inspection of lower laterals and the member City shall be responsible for inspection of the upper lateral ([Ordinance 2014-03](#), Section 411, Maintenance and Inspection of Sewer Service Laterals, as amended).

1.2.7 Service Area Challenges

The District's infrastructure faces -two main challenges which are its aging infrastructure and railroad/freeway crossings.

A significant portion of the sewer system was installed more than 40 years ago, and in some areas, the infrastructure is nearing or has exceeded its expected service life. Common issues include root intrusion, cracked vitrified clay pipes (VCP), Orangeburg pipe, and corrosion in concrete pipes due to hydrogen sulfide gas. Older pipes require more frequent cleaning and inspection due to build-up, structural degradation, and higher susceptibility to blockages.

Portions of the sewer system traverse critical transportation corridors, including the active railroad lines and Freeway 99. These crossings present unique operational and maintenance challenges. Routine inspections, emergency repairs, or rehabilitation efforts near rail or freeway infrastructure often require coordination with multiple agencies (e.g., Caltrans, Union Pacific Railroad, member cities) and can involve significant delays due to permitting, safety protocols, or limited work windows. Any failure near or beneath transportation infrastructure may result in costly disruptions, including traffic delays, environmental exposure, and expensive emergency bypass pumping operations. Infrastructure upgrades at these crossings typically require trenchless technologies such as



horizontal directional drilling or directional boring which increase project complexity and cost.

1.2.8 Data Management Systems

This section summarizes the data management systems that the District uses, including the software program.

- Info Storm Water Management Model (InfoSWMM) – A Software that is a GIS-based stormwater/sewer model that integrates hydrologic and sewer collection system modeling and optimization functionality. This system is used for modeling the collections system. The District engages with a consultant to provide this function.
- SmartCovers - Web-based smart technology that provides real-time remote sewer overflow monitoring via a reliable satellite communications system.
- Supervisory Control and Data Acquisition (SCADA) system – an industrial control system that gathers data from sensors, meters, and programmable logic controllers (PLCs) to provide real-time information about equipment.
- California Integrated Water Quality System Projects (CIWQS) – a computer based State run database that combines discharger and environmental reporting data.
- Desktop and Mobile Architecture for System Hardware (DASH) – a protocol and framework for standardizing inputs for the Geographic Information System, Computer Maintenance Management System, and data collection and reporting.

1.3 SSMP Elements and Organization

This SSMP includes detailed information demonstrating the District's efforts to comply with each of the mandatory and applicable elements required for its SSMP. The organization of this document is consistent with the SWRCB guidelines and includes the following 11 General Order elements:

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



Supporting information for an element is included as links and appendices to the SSMP, as applicable. Generally, information expected to require relatively frequent updates can be modified without formal action and is to be tracked in the SSMP change log found in Appendix F.



Section 2: Organization

The General Order specifies the following requirements with respect to the Organization section of the SSMP:

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

- The name of the Legally Responsible Official as required in Section 5.1 of the General Order.
- The position titles, telephone numbers, and email addresses for management, administrative, and maintenance positions responsible for implementing specific SSMP elements.
- Organizational lines of authority.
- Chain of communication for reporting spills from receipt of complaint or other information, including the person responsible for reporting spills to the State and Regional Water Boards and other agencies, as applicable. For example, county health officer, county environmental health agency, and State Office of Emergency Services.

This section identifies the representative responsible from the District for the implementation of this SSMP. It also includes an organizational chart and a chain of communication for reporting spills.

2.0 Legally Responsible Official

The General Order requires that the District designate at least one Legally Responsible Official (LRO). The LRO should have knowledge and expertise of the enrolled sanitary sewer system and is authorized to serve as a duly authorized representative. The LRO must have responsibility over management of the entire sanitary sewer system and must be authorized to make managerial decisions that govern the operation of the sanitary sewer system, including having the explicit or implicit duty of making major capital improvement recommendations to long term environmental compliance.

The LRO must:

- Possess a recognized degree or certificate related to O&M of sanitary sewer systems.
- Have professional training and experience related to the management of sanitary sewer systems, demonstrated through extensive knowledge, training, and experience.

The LRO is responsible for electronically certifying, on the District's behalf, all applications, reports, the SSMP and corresponding updates, and other information submitted electronically into the online California Integrated Water Quality System (CIWQS) Sanitary Sewer System Database.



The LRO may designate one or more individuals as a Data Submitter for reporting spill data. The LRO shall authorize the designation of Data Submitter(s) through the online CIWQS database. The LRO shall submit any changes to its Data Submitter(s), and/or change in Data Submitter contact information, to the State Water Board within 30 calendar days of the change, by emailing ciwqs@waterboards.ca.gov and copying the appropriate Regional Water Board of the General Order.

The Collections Supervisor shall be the LRO. They will certify all final spill reports and notify the proper regulatory agencies, as needed. In the event of Collection Supervisors absence the Assistant Collections Supervisor will fulfill the duties of the authorized representative.

The District Engineer also serves as an LRO, however the main functions of the District Engineer is to develop, implement, educate, recommend refurbish, replacement, and expansion projects, and audit all elements of the SSMP.

The SSMT's and MTIII are trained to be data submitters as part of the SSMP development and implementation. The objective is to have properly trained individuals throughout the Collections Department. [Figure 2-1](#) shows the hierarchy of the Collections Department.

Appendix A contains the names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program.

2.1 Chain of Communication for Reporting SSO's

Communication of activities is important to keep managerial staff informed of successes and potential problems. Additionally, implementation of the various elements of the SSMP will require constant coordination between the various sections identified in the organizational chart. Therefore, identifying the specific positions and staff as well as establishing communication protocols is necessary so that appropriate personnel are properly informed to respond to sanitary sewer system related issues in effective and efficient manner.

Continual communication among the Collections Department hierarchy facilitates and supports activities that allow the District to inform the appropriate staff about the operation and management of the collection system.

Generally, the communication plan will follow the chain of command identified in [Figure 2-2](#) flow chart. Specific levels of authority will be required to facilitate implementation and enforcement of the plans and procedures developed for the SSMP. As the various plans and procedures are implemented, an assessment of the effectiveness of the plans will best be determined by the labor force that executes and evaluates the



immediate impacts of the plans and procedures. Efficient and timely responses will be essential so that the adopted plans and procedures are effective for the management and operation of the wastewater system.

2.2 Chain of Communication for Reporting SSO's

The standby person responds to all service and emergency calls, assesses the situation, and notifies the Collections Supervisor of the initial findings. The Assistant Collections Supervisor is also notified. The Collections Supervisor in turn allocates resources to the “service call” and notifies the appropriate regulatory agencies as necessary.

During business hours the District “service calls” are received by the Administrative personnel or directly to Standby person. The Administrative personnel relay the information to the Standby person on duty. During non-business hours the Standby person is notified of a “service call” by an answering service that is under contract with the District. See Appendix A for contact information of regulatory agencies.

The Assistant Collections Supervisor responds to the SSO. In the case of property damage due to an SSO, the Assistant Collections Supervisor prepares the Sewer Backup Claims packet. The Assistant Collections Supervisor completes packet and submits to the Executive Assistant to the General Manager or General Manager, who then begins the process with CSRMA. Follow-up activities and questions are routed to the Collections Supervisor.

The Standby person is required to submit a written report of the “service call” to the Assistant Collections Supervisor. All SSMT's are primary data submitter. The SSMT's input the SSO data into the CIWQS system. The Collections Supervisor then completes the reporting requirements as adopted in the GWDR and certifies the report.



Figure 2-1 District Organizational Chart



ORGANIZATIONAL CHART

FY 2025-26

R = Salary Range; () = No. of Authorized Positions; Total Number of Authorized Positions = 33

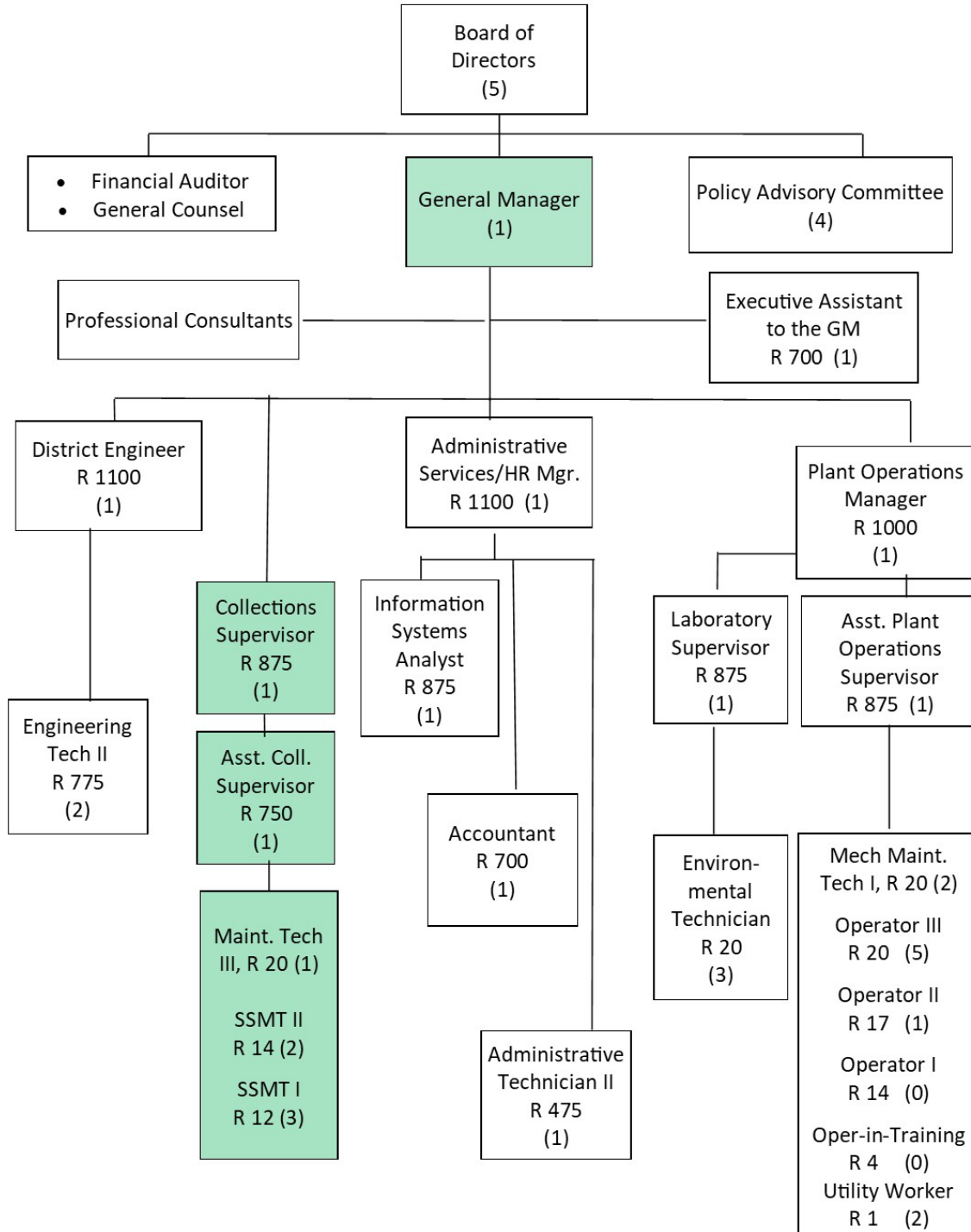
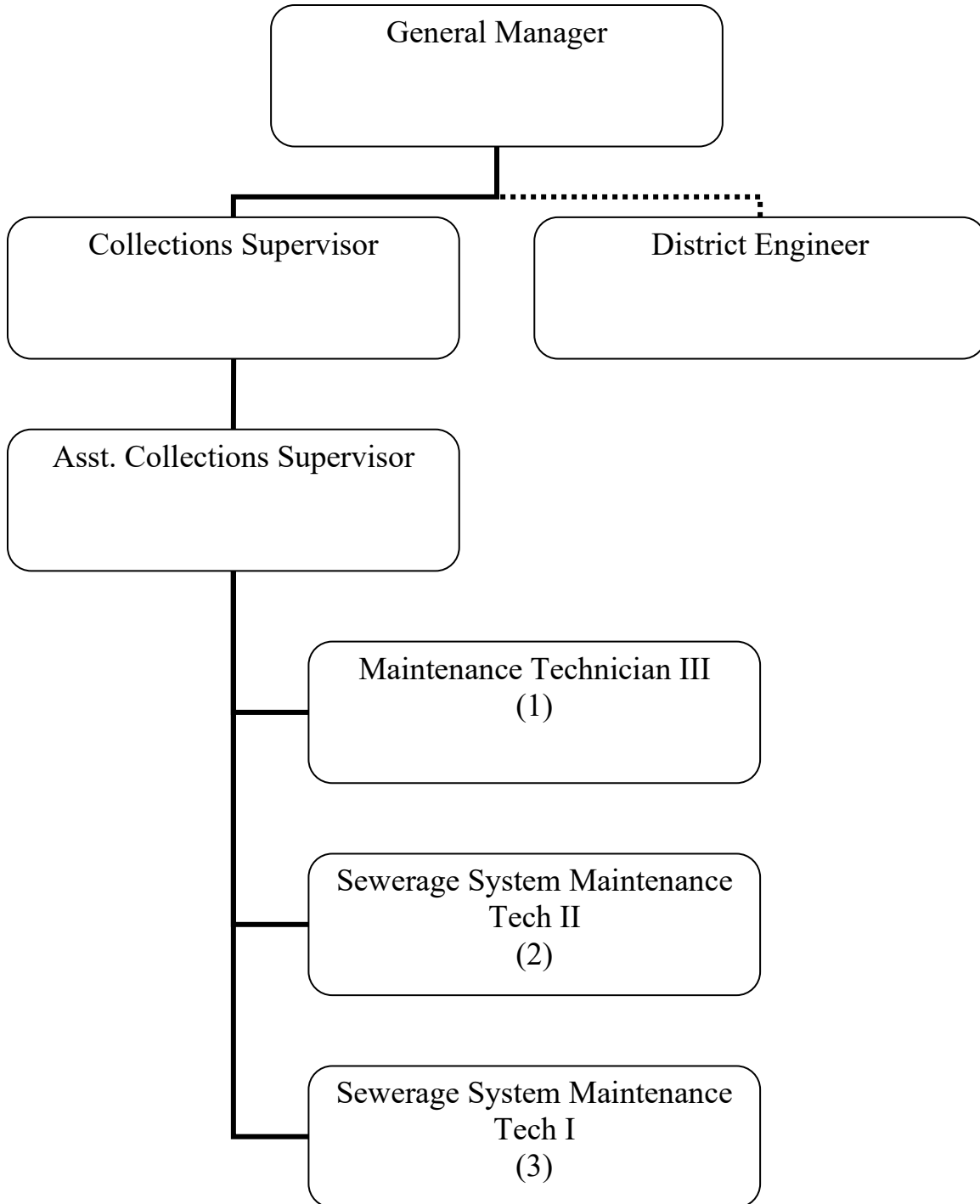




Figure 2-2 - Collections Department hierarchy





Section 3: Legal Authority

The General Order specifies the following requirements with respect to the Legal Authority element of the SSMP:

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

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

This section serves to confirm that the District has the authority, through ordinances, services agreements, or other legally binding procedures, to conform to the requirements of the General Order.

3.0 Legal Authority for Sewer Use - Ordinance No 92

The District's sewer use ordinance is an ordinance regulating the use of the wastewater facilities of the Selma-Kingsburg-Fowler County Sanitation District. A copy of the ordinance(s), construction standards, and resolutions, is available at the District office and on the District website:

https://www.skfcsd.org/files/2c3b74ea7/Ordinance-No-92-_Sewer-Use-Ordinance-administration-09.pdf.

3.1 Service Agreements

The District has service agreements in place for each of the member cities, which require the District to operate, maintain, and regulate each member cities' collection system.



3.2 Admission to Property

The District has authority to enter upon any property or premises to inspect, inspect monitoring equipment, copy records, or obtain samples, etc as detailed in the Sewer Use Ordinance 92, Section 3.05 Admission to Property. Admission to property is also outlined in [Ordinance No.2014-03](#), “An Ordinance Regulating The Use of Public and Private Sewers, the Installation of Sewer Laterals and Public Sewer Main Extensions and Regulating Plumbing and Sewering”.

3.3 District’s Construction Standards

The District has Construction Standards and standard details for the construction, inspection, testing, and acceptance of new, rehabilitated, or repaired portions of the collection system. These Standards are available at the District office and on the District website: <https://www.skfcsd.org/files/9dec88fea/construction+standards.pdf>.

3.4 Illicit Discharges

The Districts Sewer Use Ordinance No. 92 prohibits illicit discharges in Chapter II “Prohibitions and Limitations on Wastewater Discharges To The Wastewater Facilities” of said ordinance.

3.5 Enforcement of Violations

The District has adopted Resolution No 92007, “A Resolution Adopting Administrative Guidelines for the Enforcement of The SKFCSD Sewer Use Ordinance,” which outlines enforcement actions. Chapter VII of the Sewer Use Ordinance contains penalties and costs provisions to correction violations of the rules and regulations of the District.

3.6 Fats, Oils, and Grease (FOG)

Minimum requirements for interceptors for the limitation of FOG are outlined in the Sewer Use Ordinance No. 92 and [Resolution 94009](#), “A Resolution Setting the District Policy for Administering Ordinance 64¹ Chapter III Section 3.03.02 Interceptors.” Ordinance 92 will be updated as specified in Appendix D’s implementation schedule.

3.7 Storm Drain Coordination

The District does not manage, operate or maintain storm drain infrastructure, this responsibility falls under the city’s jurisdiction. Thus, communication and coordination between the District and cities is required. Interconnectivity of storm drain, and sewer systems shall not be allowed. When such instances are identified, coordination between the District and cities to remove such connections will be addressed.

¹ Ordinance 64 also known as Sewer Use Ordinance (No.92)



Section 4: Operations and Maintenance Program

The General Order specifies the following requirements with respect to the O&M Program element of the SSMP:

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

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

Preventive Operation and Maintenance Activities. A scheduling system and a data collection system for preventive operation and maintenance activities conducted by staff and contractors. The scheduling system must include:

- Inspection and maintenance activities.
- Higher-frequency inspections and maintenance of known problem areas, including areas with tree root problems.
- Regular visual and closed-circuit television (CCTV) inspections of manholes and sewer pipes.

The data collection system must document data from system inspection and maintenance activities, including system areas/components prone to root-intrusion potentially resulting in system backup and/or failure.

Training. In-house and external training provided on a regular basis for sanitary sewer system operations and maintenance staff and contractors. The training must cover:

- The requirements of the General Order.
- The Enrollee's Spill Emergency Response Plan procedures and practice drills.
- Skilled estimation of spill volume for field operators.
- Electronic CIWQS reporting procedures for staff submitting data.

Equipment Inventory. An inventory of sewer system equipment, including the identification of critical replacement and spare parts.

This section contains a description of the District's operations and maintenance program, including mapping, preventative maintenance, inspection, training, and equipment inventory.

4.0 Sewer Atlas Maps

The District maintains a comprehensive map of all pump stations, manholes, sewer line sizes and other collection system appurtenances for all the member cities of the District. The sewer atlas map updates are coordinated by the Engineering Department. CalCAD a vendor to the District updates the GIS system. All departments have access to GIS.



Discrepancies between the sewer atlas maps and the field are reported from the Sewerage System Maintenance Technician (SSMT) to the Engineering Department, who then verifies the information, once verified the Engineering Department sends the update to CALCAD.

4.1 Operation and Maintenance Activities

The District uses the Desktop and Mobile Architecture for System Hardware (DASH) software to manage the CMMS and GIS. New sewer mains and lift stations are inventoried into the system after they have been constructed by others, tested and approved by the Engineering Department. The Engineering Department is responsible for providing CALCAD the manhole identification, sewer line size, type of pipe, rim and invert elevations, and length of pipe, for input into the GIS database system. Each SSMT has access to the GIS and CMMS system to complete workorders such as routine cleaning of sewer mains, inspection of lift stations, respond to USA's, scheduled and unscheduled maintenance activities, emergency calls and/or service calls.

4.1.1 Preventive Maintenance

All sewer lines from 6 inches to 12 inches are scheduled to be cleaned with a high velocity cleaner every 24 to 36 months. High maintenance areas (lines with frequent blockages) are cleaned every 3 to 6 months. Lift stations are cleaned on two month intervals and checked once a week. The District operates and maintains 24 lift stations. Sewers that are 15 inches and larger are cleaned on an as needed basis.

New lines are scheduled for the first cleaning five years after installation and placed on a 36 month schedule thereafter.

Lift stations are routinely cleaned and inspected. Pump maintenance is scheduled in accordance with the manufacturer's recommendation. The District monitors the lift stations with a SCADA system daily and SmartCovers as a backup on critical stations to the SCADA. The SCADA system is programmed to send an alarm to the standby staff member via cellular phone.

As part of the routine sewer line cleaning the SSMT's inspect each sewer manhole in the cleaning run. A standardized form will be made part of the CMMS system for completion by the SSMT.

4.1.2 Technology

SmartCovers have been added to the District's program to help monitor flows to lift stations. The purpose of the SmartCovers is to help identify any storm drain inflow, blockages or illegal dumping. Currently, there are 17 SmartCovers throughout the collection system. Additional SmartCovers and replacements are in the 10-year Capital Improvement Plan (CIP) at regular intervals.



The CMMS is used to plan maintenance activities, keep track of maintenance activities, CCTV, scheduled or unscheduled work orders, service and emergency calls, and corrective maintenance. The District uses the data for optimizing collection system maintenance and the capital improvement plan.

4.1.3 Closed Circuit Televising

The District contracts out annual CCTV inspection and review to an engineering consulting firm. The estimate of CCTV inspection is from approximately 20,000 to 30,000 linear feet of sewer per year. The consulting firm reviews and assists the District in prioritizing rehabilitation and replacement projects for the collections system. The District targets the high maintenance areas first in each city. The CCTV is sent to CALCAD for incorporation into the GIS system.

The District will review the need for additional resources to conduct CCTV inspections with appropriately trained staff and equipment on an interval determined by the District.

4.2 Training

The District’s training program is a combination of certification pay incentives, CWEA training, seminars, District safety meetings, and mentoring from more experienced employees at the District.

District staff will continue to be trained in the following items, but not limited to, use of safety equipment, confined space entry, hydro-cleaning equipment, portable pumps and generators, SCADA, CIWQS online reporting, SSO response procedures, and properly document SSO’s, work orders, and service call-out reports, manhole inspections.

4.2.1 Training Schedule

The below is a training schedule specific to the collection system WDR and is not inclusive of all the training that occurs at the District.

Training	Frequency	Date	Resources
SSO	Annually	October	In-House
SORP	Annually	May	In-House
CIWQS	Annually	January	In-House
SORP Training Drills	Annually	September	In-House
Spill Volume Estimation Drills	Annually	September	In-House
Residential Sewer Back-ups	Annually	April	In-House/DKF



4.3 Equipment and Replacement Parts

The District has a limited inventory of equipment and replacement parts for responding to an SSO or lift station failure. The District will develop a comprehensive list of replacement parts and equipment that is updated by the Collections Supervisor and incorporated into the CMMS software. This list is to be annually audited and updated accordingly and is contained in appendix D.



Section 5: Design and Performance Provisions

This section presents the District's relevant design and construction standards, as well as standards for the inspection and testing of new sewers, pumps, and other appurtenances and for rehabilitation projects as required by the General Order. The General Order specifies the following requirements with respect to the Design and Performance Provision element of the SSMP:

The Plan must include the following items as appropriate and applicable to the Enrollee's system:

Updated Design Criteria and Construction Standards and Specifications. Updated design criteria, and construction standards and specifications, for the construction, installation, repair, and rehabilitation of existing and proposed system infrastructure components, including but not limited to pipelines, pump stations, and other system appurtenances. If existing design criteria and construction standards are deficient to address the necessary component-specific hydraulic capacity as specified in the System Evaluation, Capacity Assurance and Capital Improvements of the General Order, the procedures must include component-specific evaluation of the design criteria.

Procedures and Standards. Procedures, and standards for the inspection and testing of newly constructed, newly installed, repaired, and rehabilitated system pipelines, pumps, and other equipment and appurtenances.

This section presents the District's design and construction standards, as well as its standards for the inspection and testing of new sewers, pumps, and other appurtenances, and for rehabilitation projects.

5.0 District's Construction Standards and Specifications

The District has Construction Standards and standard details for the construction, inspection, testing, and acceptance of new, rehabilitated, or repaired portions of the collection system.

The Engineering Department is tasked with reviewing and updating the Construction Standards for Board approval, as necessary on a minimum of a 6-year cycle to ensure industry's best practices are implemented.

These Standards are available at the District office and on the District website:
<https://www.skfcsd.org/files/9dec88fea/construction+standards.pdf>

5.1 Procedures and Standards

The District's Construction Standards Section 7.0 and 9.0 as found in the above section contains the procedures and standards for construction, inspection and testing of all District facilities.



Section 6: Spill Emergency Response Plan

The General Order specifies the following requirements with respect to the SERP element of the SSMP:

The Plan must include an up to date Spill Emergency Response Plan to ensure prompt detection and response to spills to reduce spill volumes and collect information for prevention of future spills. The Spill Emergency Response Plan must include procedures to:

- Notify primary responders, appropriate local officials, and appropriate regulatory agencies of a spill in a timely manner.
- Notify other potentially affected entities (for example, health agencies, water suppliers, etc.) of spills that potentially affect public health or reach waters of the State.
- Comply with the notification, monitoring and reporting requirements of the General Order, State law and regulations, and applicable Regional Water Board Orders.
- Ensure that appropriate staff and contractors implement the Spill Emergency Response Plan and are appropriately trained.
- Address emergency system operations, traffic control and other necessary response activities. Contain a spill and prevent/minimize discharge to waters of the State or any drainage conveyance system.
- Minimize and remediate public health impacts and adverse impacts on beneficial uses of waters of the State.
- Remove sewage from the drainage conveyance system.
- Clean the spill area and drainage conveyance system in a manner that does not inadvertently impact beneficial uses in the receiving waters.
- Implement technologies, practices, equipment, and interagency coordination to expedite spill containment and recovery.
- Implement pre-planned coordination and collaboration with storm drain agencies and other utility agencies/departments prior, during, and after a spill event.
- Conduct post-spill assessments of spill response activities.
- Document and report spill events as required in the General Order.
- Annually, review and assess effectiveness of the Spill Emergency Response Plan, and update the Plan as needed.

Section 5.12 of the General Order requires that within six months of the Adoption Date of the General Order, the Enrollee shall update and implement its SERP, per Attachment D, Section 6 of the General Order. A SERP has been developed for the District to comply with the requirements of the General Order. A copy of the District's SERP can be found in Appendix C.

This plan is intended to be updated and modified by the District once a year to more closely reflect operating conditions and changes that may occur in spill response procedures. This Section summarizes the major aspects of the SERP as relevant to the specific General Order requirements.



6.0 Spill Classification

A spill is defined as any overflow, release, discharge, or diversion of untreated or partially treated wastewater from a sanitary sewer system. An individual spill's notification, monitoring, and reporting requirements vary based on the individual spill's category. There are four categories of spills with requirements as established by the General Order:

- **Category 1 Spill:** A Category 1 spill is a spill of any volume of sewage from or caused by a sanitary sewer system regulated under the General Order that results in a discharge to:
 - A surface water, including a surface water body that contains no flow or volume of water.
 - A drainage conveyance system that discharges to surface waters when the sewage is not fully captured and returned to the sanitary sewer system or disposed of properly.
 - Any spill volume not recovered from a drainage conveyance system is considered a discharge to surface water unless the drainage conveyance system discharges to a dedicated stormwater infiltration basin or facility.
 - A spill from an Enrollee-owned and/or operated lateral that discharges to a surface water is a Category 1 spill; the Enrollee shall report all Category 1 spills per Section 3.1 of Attachment E1 (Notification, Monitoring, Reporting, and Recordkeeping Requirements) of the General Order.
- **Category 2 Spill:** A Category 2 spill is a spill of 1,000 gallons or greater, from or caused by a sanitary sewer system regulated under the General Order that does not discharge to a surface water:
 - A spill of 1,000 gallons or greater that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system is a Category 2 spill.
- **Category 3 Spill:** A Category 3 spill is a spill of equal to or greater than 50 gallons and less than 1,000 gallons, from or caused by a sanitary sewer system regulated under the General Order that does not discharge to a surface water:
 - A spill of equal to or greater than 50 gallons and less than 1,000 gallons, that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system is a Category 3 spill.
- **Category 4 Spill:** A Category 4 spill is a spill of less than 50 gallons, from or caused by a sanitary sewer system regulated under the General Order that does not discharge to a surface water:
 - A spill of less than 50 gallons that spills out of a lateral and is caused by a failure or blockage in the sanitary sewer system is a Category 4 spill.



- **Private Lateral Sewage Discharges:** A private lateral sewage discharge spill is a sewage discharges that are caused by blockages or other problems within a privately owned lateral.

6.1 Overview of Sewer Spill Response Documents

The District has two documents that define the procedures to respond to sewer overflows and notify appropriate agencies. For reference both documents as described below are included in Appendix B and C.

The Sanitary Sewer Response Plan (SSRP) is a document that has been approved by the Assistant General Manager as a procedure to respond to SSO's from the receipt of a service call, record keeping, response, public notification, regulatory requirements, chain of command, initial responders, the person responsible for regulatory requirements and other emergency responders that could potentially be involved.

The Sanitary Sewer Overflow Response Operational Guidelines is a document that has been approved by the General Manager as a procedure to respond to SSO from the first responder and field crew responsible for identifying the source of the SSO, correcting the cause of the overflow, containing the sewer overflow, and clean-up.

Both documents should be reviewed and updated annually by the District Engineer or when there are changes in overflow response procedures.

6.2 Sanitary Sewer Overflow Response Plan (SSORP)

The SSORP is divided into the following Sections:

- **Introduction:** This section provides general information in regard to SSO's and requires maintenance personnel to become familiar with the procedures and states that the procedures have been developed to protect the public health and environment.
- **Initial Notification:** This subsection describes how service calls, and pump station failures are received by the District during business and non-business hours, also includes information that should be collected from the report of the service call, i.e., time and date call was received, location, description of problem, caller's name and contact information, and any other relevant information.
- **Record Keeping:** This subsection states the record keeping requirements per the GWDR.
- **Sanitary Sewer Overflow Response Crew:** This subsection details the procedures used to dispatch appropriate crews and equipment to a confirmed



overflow and also contains protocols for communications between supervisors, response crews, and other agencies as required.

- **Hazardous Materials:** This subsection describes the procedure and chain of communications when the site supervisor at an overflow event makes a determination that there are hazardous materials associated with a confirmed SSO.
- **Overflow Correction, Containment, and Clean-up:** This subsection describes the responsibilities of the response crew while on-site. The initial responder is responsible for determining the cause of the overflow, determine if there is any damage to private property and follow notification procedures, accordingly, assess the need for equipment, notify supervisors, contain the spill, and clean up spills.
- **Regulatory Agency Notification:** This subsection describes the regulatory requirements and the responsible persons required to notify the proper entities. Included in this section is a chain of command when the primary responsible person is not able to carry out notification and reporting duties.
- **Training:** This section specifies that training should be conducted on an annual basis.
- **Appendix:** This section contains contact information for the District and member Cities Police, and Fire.

6.3 Sanitary Sewer Overflow Response Operational Guidelines

The purpose of the Sanitary Sewer Overflow Response Operational Guidelines is to insure that District personnel follow established procedures in receiving service calls and sewer overflow reports, responding appropriately and providing District customers with the proper information on sewer overflows which occur within the District service area.

It is anticipated that these procedures continually will be in a state of evaluation as the needs of the District change, operating conditions change, and regulatory requirements change.

The District Engineer is responsible for updating this document. Training should be provided annually to the District personnel.

The Sanitary Sewer Overflow Response Operational Guidelines contain procedures for residential or business sewer backups. The responder's role is to protect public health, environment and property from sewage spill events and, restore areas affected to normal as possible, to establish a secure perimeter around the spill to protect the public, and to contain the sewage discharge to the extent possible. Included in this section are flow charts, forms, and tips for communicating with the homeowner.



The forms to be filled out are as follows: sewer overflow report, service call work order, and claim forms as determined by the Administrative HR/Finance Director (Claims Management Coordinator).

Also contained in this document are procedures and instructions for containment, blockage clearing, cleanup for a SSO, operational guidelines for the vacuum truck, and guidelines for estimating spill volume, as well as reporting forms.



Section 7: Sewer Pipe Blockage Control Program

The General Order specifies the following requirements with respect to the Sewer Pipe Blockage Control Program (Control Program) element of the SSMP:

The SSMP must include procedures for the evaluation of the Enrollee's service area to determine whether a sewer pipe blockage control program is needed to control fats, oils, grease, rags and debris. If the Enrollee determines that a program is not needed, the Enrollee shall provide justification in its Plan for why a program is not needed.

The procedures must include, at minimum:

- An implementation plan and schedule for a public education and outreach program that promotes proper disposal of pipe-blocking substances.
- A plan and schedule for the disposal of pipe-blocking substances generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of substances generated within a sanitary sewer system service area.
- The legal authority to prohibit discharges to the system and identify measures to prevent spills and blockages.
- Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, best management practices requirements, recordkeeping and reporting requirements.
- Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the fats, oil, and grease ordinance.
- An identification of sanitary sewer system sections subject to fats, oil, and grease blockages and establishment of a cleaning schedule for each section.
- Implementation of source control measures for all sources of fats, oil, and grease reaching the sanitary sewer system for each section identified above.

This section discusses the District's ongoing efforts that fall under a Control Program.

7.0 Public Education

The District has a public education program that will entail the use of the District website and brochures. Items to be placed on the District website site are brochures containing information about proper disposal of Fat, Oils, Grease, rags and debris (FOG), disposal practices for residential and commercial, and best management practices for grease removal devices for food service establishments (FSE).

Annually the District participates in the following events to distribute information about the collection system as well as answer customer questions:

- Selma, Kingsburg, Fowler festivals
- Career day at the High Schools



- The District gives Public Outreach materials to all three City Halls to distribute to residents for personal use such as grease cups to aid in keeping Fats, Oils, and Grease out of household drains.
- The District Participates annually in the Chamber Mixer where all three cities we serve come out to our WWTP and learn about what we do through personal tours given by Staff, and communication from the General Manager.
- The District has a partnership with Valley Regional Occupational Program to provide job shadowing to students in the wastewater industry

7.1 Legal Authority

The District's Ordinance 92, Section 2.02.01 and 2.02.06 specifically prohibits the discharge of FOG and other debris that may cause blockages. Resolution 94009, "A Resolution Setting The District Policy For Administering Ordinance NO. 64 Chapter III Section 3.03.02", addresses sizing criteria for grease interceptor installations.

The District has authority to enter upon any property or premises to inspect, inspect monitoring equipment, copy records, or obtain samples, etc as detailed in the Sewer Use Ordinance 92, Section 3.05 Admission to Property. Admission to property is also outlined in Ordinance No. 5, "An Ordinance Regulating The Use of Public and Private Sewers, the Installation of Sewer Laterals and Public Sewer Main Extensions and Regulating Plumbing and Sewering".

Copies of Ordinance 92 is available at the District office and on the District website: <https://www.skfcsd.org/files/2c3b74ea7/Ordinance-No-92-Sewer-Use-Ordinance-administration-09.pdf>.

7.2 Enforcement

The District's Ordinance 92 contains enforcement procedures and a means to escalate enforcement as needed. Resolution 94009 also contains guidelines for the District to enforce additional sizing to grease interceptors if they are under capacity.

7.3 FOG Removal Devices

The District's Resolution 94009 outlines the requirement and sizing criteria for FOG removal devices.

The District's Construction Standards are under review by the Engineering Department. The Construction Standards contain specifications on grease removal devices, standard drawings, maintenance requirements, and BMP requirements. See Section 5 of this SSMP for more details. The target date for the completion of the District Construction Standards is in Appendix D, Implementation Schedule.



7.4 Sewer Pipe Blockage

The District uses asset management software called DASH to generate work orders for the cleaning of the sewer system. The Collections Department has identified most high maintenance areas and schedules those sewer lines for more frequent cleaning (3-to-6-month intervals) then other areas in the collection system.

The high maintenance areas are susceptible to blockages due to structural, FOG, or root intrusion. The current operation and maintenance program is sufficient to minimize the occurrence of SSO's .

The MTIII adds or removes sewer mains to the 3-6 month hydrocleaning schedule based on comments from the SSMT's in the course of their hydrocleaning efforts.

The District has a designated area to dispose of material from cleaning activities located at the WWTP.

7.5 FOG Source Control

The District has procedures in place which require FOG removal devices for FSEs. The District will analyze the existing procedures as SSO trends related to FOG blockages are gathered and analyzed. See Appendix D: Implementation Schedule. Items to be evaluated are as follows:

- Identify sites within the collection system based on SSO's.
- Add FOG facts, best management practices, requirements, haulers, and contact information to the District website.
- Assignment of staff resources and training.
- Update Sewer Use Ordinance.
- Cleaning frequency, odor reports, and customer complaints.
- Review completed work orders for any notes from the SSMT's.
- Characterize sources of FOG at each related FOG high maintenance area.



Section 8: System Evaluation and Capacity Assurance Plan

The General Order specifies the following requirements with respect to the System Evaluation, Capacity Assurance, and Capital Improvements element of the SSMP:

The SSMP must include procedures and activities for:

- Routine evaluation and assessment of system conditions.
- Capacity assessment and design criteria.
- Prioritization of corrective actions.
- A capital improvement plan.

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

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

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

- Dry-weather peak flow conditions that cause or contributes to spill events.
- The appropriate design storm(s) or wet weather events that causes or contributes to spill events.
- The capacity of key system components.



- Identify the major sources that contribute to the peak flows associated with sewer spills.

The capacity assessment must:

- Data from existing system condition assessments, system inspections, system audits, spill history, and other available information.
- Capacity of flood-prone systems subject to increased infiltration and inflow, under normal local and regional storm conditions.
- Capacity of systems subject to increased infiltration and inflow due to larger and/or higher-intensity storm events because of climate change.
- Increases of erosive forces in canyons and streams near underground and aboveground system components due to larger and/or higher-intensity storm events.
- Capacity of major system elements to accommodate dry weather peak flow conditions, and updated design storm and wet weather events.
- Necessary redundancy in pumping and storage capacities.

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

Capital Improvement Plan. The capital improvement plan must include the following items:

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

This Section summarizes the results of the most recent capacity evaluation and includes recommended improvements and the latest CIP.

8.0 District Compliance

The District undertakes Collection System Master Planning every five to ten years to evaluate the present and future needs of the collection system. Collection system assets are evaluated in terms of hydraulics, condition, and performance. Hydraulic modeling is used extensively by the District to evaluate capacity, for both dry weather and wet weather flows. Management of system capacity and performance have helped eliminate SSO concerns except for cases of pipe failure or other unknown events such as grease accumulation, roots, debris.



A GIS-integrated, risk-based asset management and capital planning software platform, InfoSWMM, is used to assist in identifying and prioritizing collection system improvement needs. Infrastructure data and CMMS data is inputted into the software platform. Using GIS, staff can analyze the data collectively as a system, or individually, as individual pipe segments.

The Collection Master Plan is on the District website:
https://www.skfcsd.org/files/261a3f0c2/SKFCSD_2024+Collection+System+MP+Update_Final_2025-03-14.pdf

Sewer capacity can also be affected by the accumulation of roots, fats, grease, or other debris in pipes. A CMMS program is utilized to track/schedule maintenance. Based on the results of the cleaning, the cleaning schedules/frequencies are adjusted to optimize collection system performance and labor utilization. CMMS data is also utilized in helping to identify possible segments that need replacement. Refer to Element 4 for further information on the District’s collection system rehabilitation and replacement process.

The District just completed the Collection System Master Plan (CSMP) in 2024 to continue to optimize infrastructure planning and budgetary needs, and to further enhance the “line-of-sight” between strategic objectives and asset management objectives.

The District also recently completed a Sewer System Management Plan Audit for the 3-Year Audit Period Ending August 2, 2024 which is attached as Appendix E to this SSMP.

8.1 CAPACITY EVALUATION

The District has used hydraulic modelling for many years to simulate collection system flows for different scenarios. In the 2024 CSMP a new InfoSWMM model was used. The new model will continue to be updated on a regular basis, and further developed to account for changes in future growth projections and land use.

The wastewater collection system must be able to convey wastewater flow at peak wet weather conditions. The following describes steps that District has taken to ensure adequate capacity is available in the system.

The comprehensive evaluation of the District’s collection system under both existing and future conditions highlights the need for targeted infrastructure improvements. Immediate actions include addressing current deficiencies in gravity mains and lift stations. Long-term strategies involve upgrading existing facilities and constructing new infrastructure to accommodate projected growth and ensure the system meets performance criteria. These measures will help maintain the reliability and efficiency of the District’s wastewater collection system.



The hydraulic evaluation revealed deficiencies in the existing gravity mains within the District's collection system. In Selma, 7,350 feet of gravity mains were identified as deficient under current conditions, and in Fowler 9,940 feet were identified. A significant portion of these deficiencies were in areas with high Rainfall-Derived Inflow and Infiltration (RDII) values. When RDII rates were reduced by 50% in a sensitivity analysis, the deficiencies decreased. There were no existing deficiencies identified in Kingsburg. The existing and future gravity main deficiencies are shown on Figure 8-1 and 8-2.

The evaluation of lift stations indicated that most of the lift stations have sufficient capacity to convey the design flows. Of the 24 lift stations, three lift stations, notably the Merced, Manning, and North lift stations, were found to be deficient, with existing design flows exceeding their firm capacities.

The force main evaluation showed that the majority of the District's force mains operate within acceptable performance criteria under existing conditions. However, the force main associated with the North Lift Station was identified as deficient, with flow velocities reaching approximately 28 fps, significantly exceeding the acceptable limit of 8 feet per second.

As part of the analysis included in the CSMP the District contracted with an engineering consultant to prepare a hydraulic model to assess the current condition of the entire District collection system.

The hydraulic model was run using existing scenarios and future scenarios. Results of the hydraulic model indicated the District has a small number of pipeline segments that require upgrading to meet the District's performance criteria. These pipeline segments are included in the Capital Improvement Plan (CIP). This work will continue in a prioritized manner until all deficiencies are addressed. The CSMP also determined that some District pump stations and force main pipelines also need upgrades which are included in the CIP.

The process of developing the CSMP was a collaborative one. Each member city received updates, the District met with each city multiple times, Policy Advisory Committee (PAC) were held. The District Board of Directors approved the CSMP after stakeholder meetings.

Figure 8-1

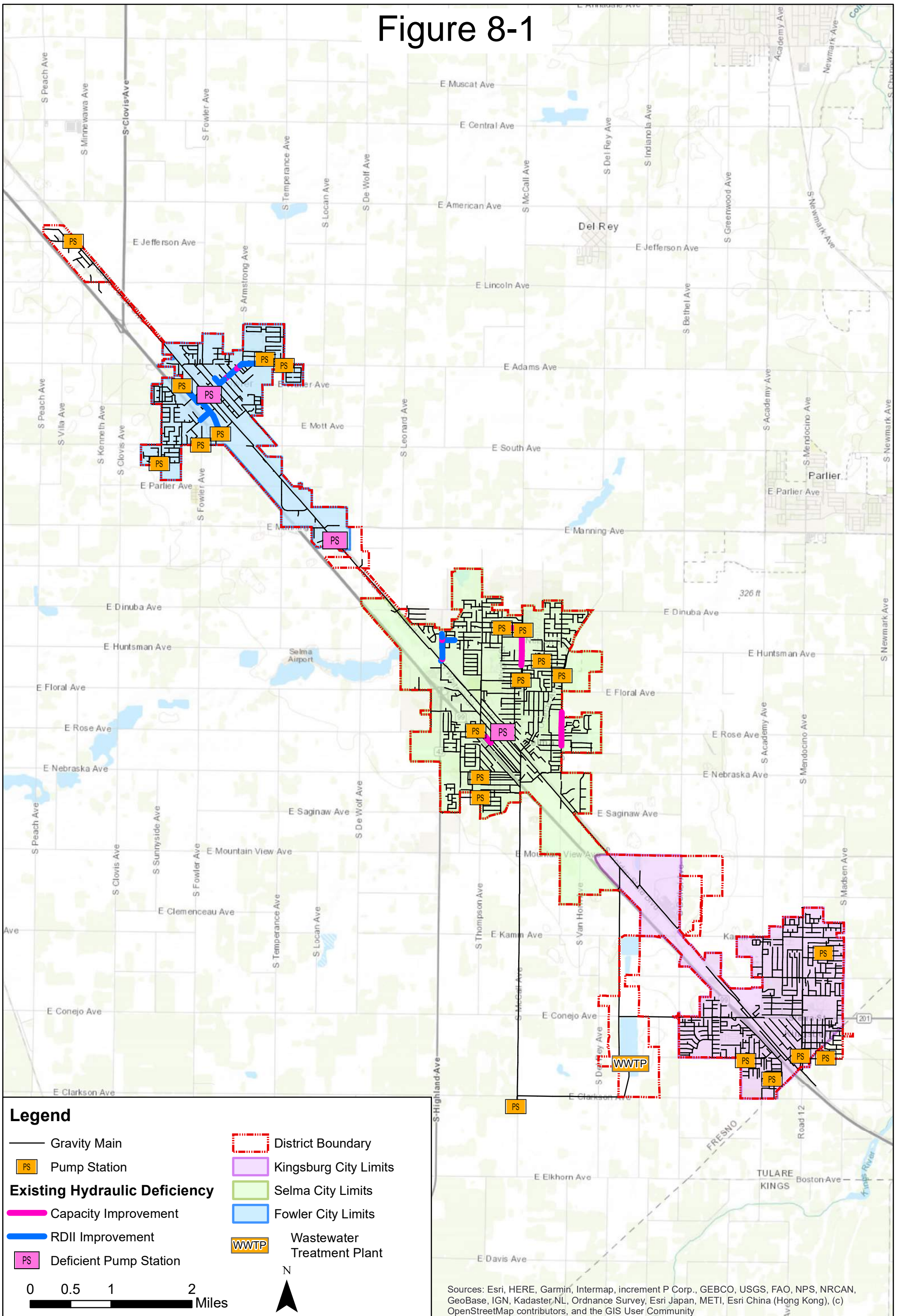
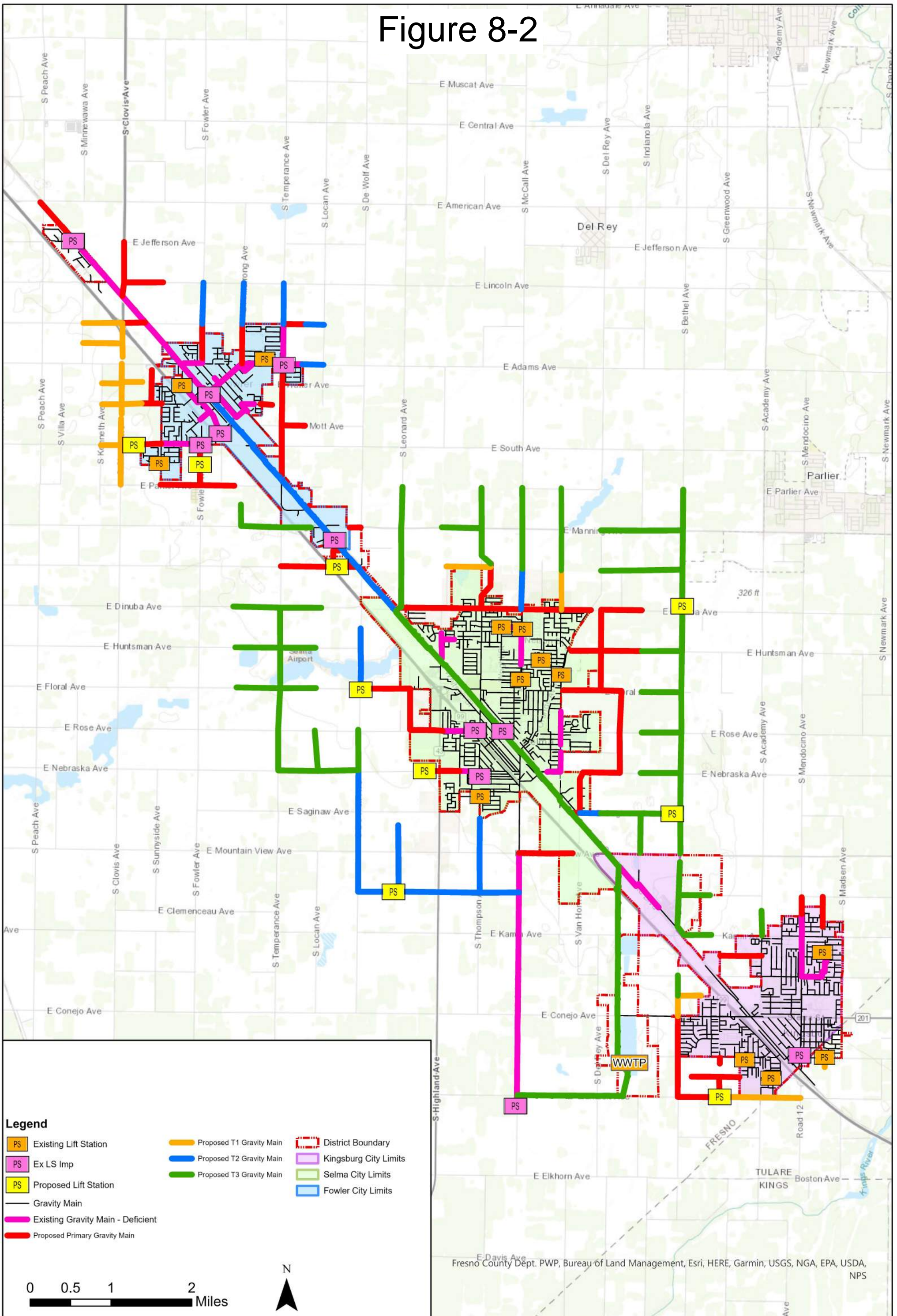


Figure 8-2





8.2 DESIGN CRITERIA

The design criterion for the Sewer System Master plan is consistent with the District's Construction Standards. The District's Construction Standards stipulate general policies of the District and outline sewer design criteria. Some of these criteria are discussed below. For detailed information refer to the Districts Construction Standards.

Sewer Capacity

Sewer pipe flow capacities depend on the roughness of the pipe interior, its geometric configuration (cross-section and length), and slope. The continuity equation and the Manning equation for steady-state flow are used to calculate flow in a sewer pipe.

Continuity equation: $Q=V*A$

Where: Q =peak flow, cfs
 V =velocity, fps
 A =cross-sectional area of pipe, sq.ft.

Manning Equation: $V=(1.486*R^{2/3}*S^{1/2})/n$

Where: V =velocity, fps
 N =Manning's coefficient of friction
 R =hydraulic radius (area divided by wetted perimeter), ft
 S =slope of pipe, feet per foot

Manning Coefficient (n)

The Manning coefficient 'n' is a friction coefficient and varies with respect to pipe material, size of pipe, depth of flow, smoothness of pipe ad joints, and extent of root intrusion. For sewer pipes, the Manning coefficient typically ranges between 0.011 and 0.017, with 0.013 begin a representative value used for sewer system master planning, which is consistent with the District's Construction Standards.

Flow Depth Criteria (d/D)

The primary criterion used to identify capacity deficient trunk sewers or to size new improvements is the maximum flow depth to pipe diameter ratio (d/D). The d/D value is defined as the depth (d) of flow in a pipe during peak flow conditions divided by the pipe's diameter (D). The District's construction standards define the acceptable d/D values for various diameters. The following table summarizes the d/D criteria as



specified in the Construction Standards:

d/D Ratios for Design Flow Conditions

Sewer Diameter Ratio	Design Flow Maximum d/D
Less than 12-inches	0.5
D=12-inches up to D=18-inches	0.67
Greater than 18-inches	0.90

Force mains are designed for a minimum velocity of 3 fps and a maximum velocity of 8 fps. The Hazen Williams formula is used to calculate velocity in force mains and is:

Velocity Equation: $V=1.32*C*R^{0.63}*S^{0.54}$

Where:

- V=velocity, fps
- C=Hazen Williams roughness coefficient
- R=Hydraulic radius (area divided by wetted perimeter), ft
- S=Slope of pipe, feet per foot

8.3 CAPACITY ENHANCEMENT MEASURES

The District typically makes improvements to capacity deficient pipelines by installing larger pipelines. The District’s Capital Improvement Plan includes these pipelines as future capital projects. The District periodically reviews its revenues including sewer use fees and connection/capacity fees. The District Board acknowledges that future capital improvements are costly and sound financial planning ensures that the improvement projects can be completed as planned.

The District in conjunction with the member cities, expands their collection systems. When developing improvements for the collection system, it is important to differentiate the District-owned facilities versus city-owned facilities. Each city owns its own local sewer collections system, which includes sewers, lift stations and appurtenances not owned by the District. The District operates and maintains each city’s facilities. The District refurbishes and replaces each city’s facilities to the extent that funds are available. Each city is responsible for expanding the facilities that it owns per the District’s policies and procedures.

The District owns the “interceptors”, four lift stations, and wastewater treatment



facility.

The District annually adopts a 10-year CIP which includes collection system projects for the purposes of refurbishing, replacing, and for expansion of the city-owned collection system. The 10-year CIP is on file at the District office.

8.4 CAPITAL IMPROVEMENT PLAN AND SCHEDULE

The District reviews the Capital Improvement Plan (CIP) on a regular basis and implementation schedules are reprioritized as needed. The CIP contains projects for both the WWTP and collection system. The District also periodically reviews its financial plan to ensure funds are available to finance the projects required by the Capital Improvement Plan.

There is a comprehensive CIP outlined in the Master Plan ensures that the District has a clear, prioritized plan for maintaining and improving its wastewater collection system to meet both current and future needs. By addressing the various components of the system and providing detailed cost estimates and prioritization, the CIP aims to enhance the system's capacity, reliability, and efficiency.

Annually, during the preparation of the budget the CIP for the WWTP and collection system is reviewed with the operation and collections staff of the District. Thereafter a minimum of one meeting is held with PAC.

Figure 8-4

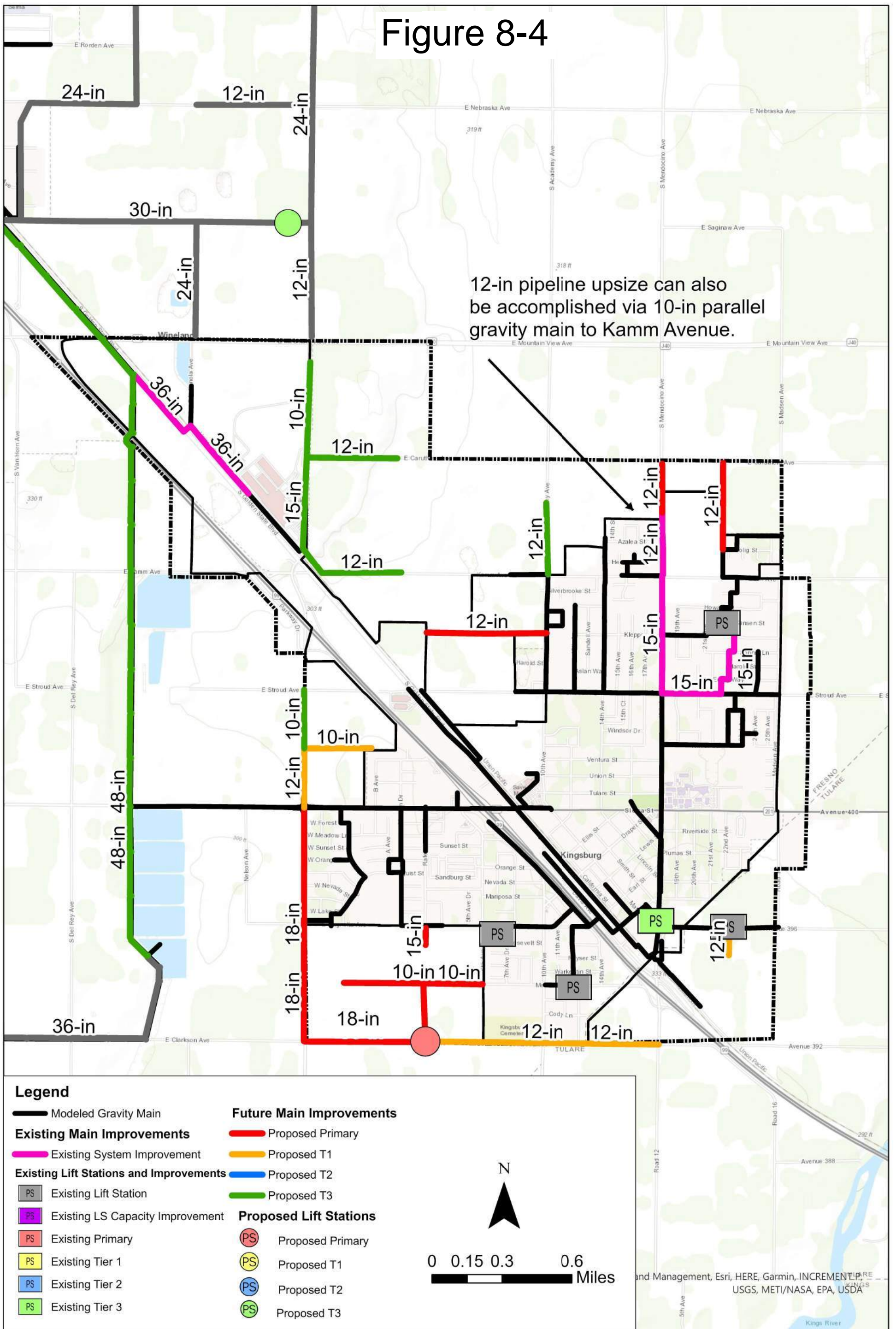
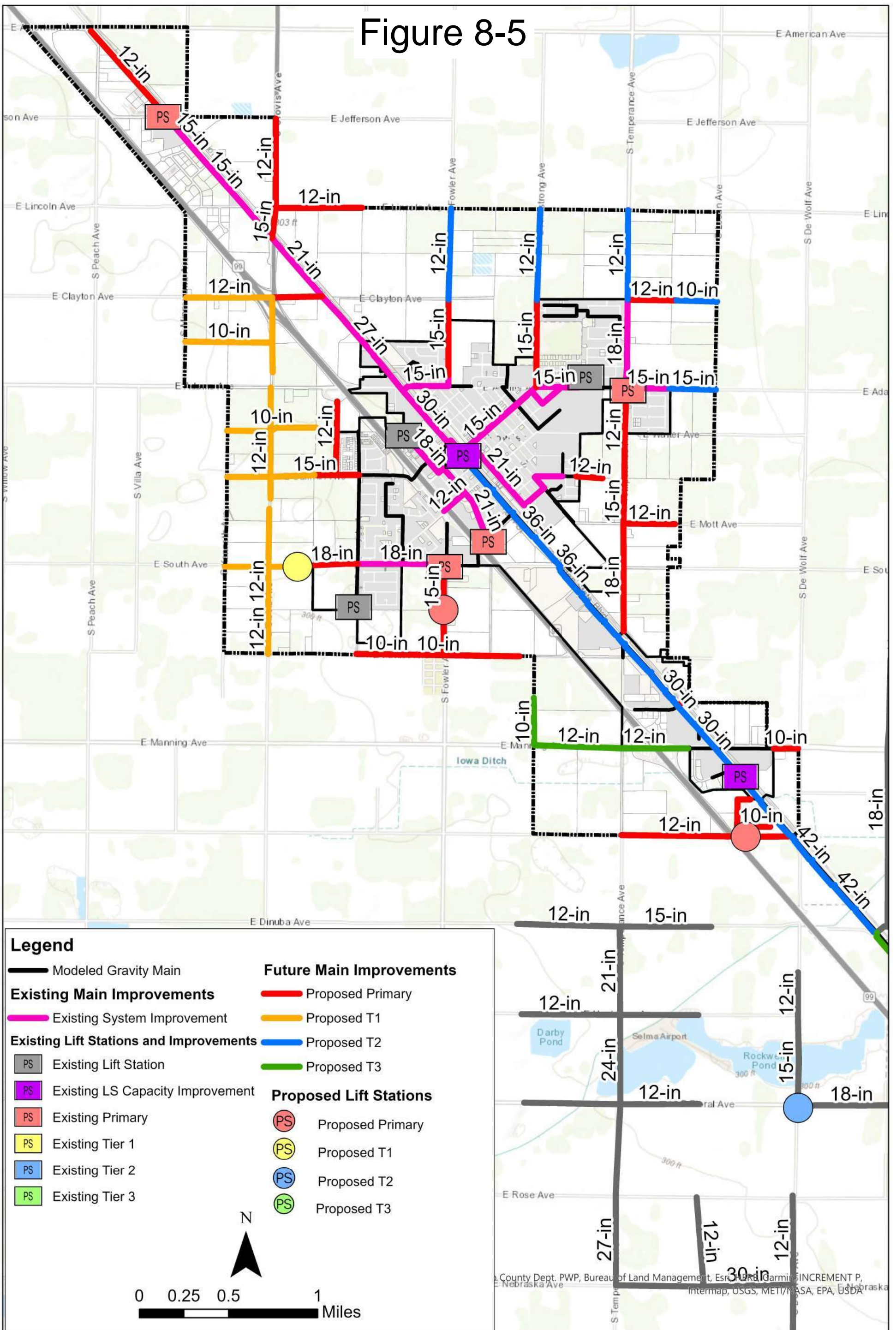
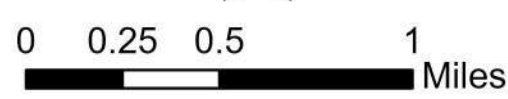


Figure 8-5



Legend

- Modeled Gravity Main
- Existing Main Improvements**
- Existing System Improvement
- Existing Lift Stations and Improvements**
- PS Existing Lift Station
- PS Existing LS Capacity Improvement
- PS Existing Primary
- PS Existing Tier 1
- PS Existing Tier 2
- PS Existing Tier 3
- Future Main Improvements**
- Proposed Primary
- Proposed T1
- Proposed T2
- Proposed T3
- Proposed Lift Stations**
- PS Proposed Primary
- PS Proposed T1
- PS Proposed T2
- PS Proposed T3





The CIP includes significant expansion in the number of gravity mains in the collection system. The recommended gravity main projects for the existing and future collection system were developed based on the methodologies and criteria presented in the Master Plan. The gravity main CIP includes improvements through buildout conditions, with a total estimated cost of \$386 million. The projects are prioritized based on development timelines breaking down as follows:

- Existing Conditions Improvements: \$14 million (4%)
- Primary Development Timeframe Improvements: \$101 million (26%)
- Tier 3 (Buildout) Development Timeframe Improvements: \$153 million (40%)



Section 9: Monitoring, Measurement, and Program Modifications

The General Order specifies the following requirements with respect to the Monitoring, Measuring, and Program Modifications section of the SSMP:

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

- Maintaining relevant information, including audit findings, to establish and prioritize appropriate SSMP activities.
- Monitoring the implementation and measuring the effectiveness of each SSMP Element.
- Assessing the success of the preventive operation and maintenance activities.
- Updating Plan procedures and activities, as appropriate, based on results of monitoring and performance evaluations.
- Identifying and illustrating spill trends, including spill frequency, locations and estimated volumes.

This chapter presents a summary of the steps to be taken by the District to evaluate the effectiveness of this SSMP and update it should improvements be necessary or desirable.

9.0 SSMP IMPLEMENTATION

The District Engineer is tasked to maintain all relevant information regarding the implementation of the SSMP activities and review activities with the General Manager for recommending improvements to the SSMP activities. Such information includes the following, but not necessarily limited to:

- Maintenance of the collection system
- SSO's
- CIWQS
- Program changes and updates by the SWRCB
- The CIP

9.1 PREVENTIVE MAINTENANCE PROGRAM

The preventive maintenance program will be reviewed by the General Manager and District Engineer on a bi-annual basis. They are to review:

- The effectiveness of the routine cleaning program
- High maintenance areas
- Work orders
- Corrective measures undertaken at an SSO location
- CIP recommendations based on recurring SSO's and condition assessment
- Backlog of repair, rehabilitation, and replacement projects on a fiscal year basis



- Other relevant information to improve the preventive maintenance program.

9.2 SSMP UPDATE

The SSMP program elements will be updated every six years per the CS WDR by the District Engineer based on the monitoring or performance evaluations of each program element as well as SSO trends. Note that changes in the SSMP should be tracked in the Change Log, which is included in Appendix F.

9.3 SSO TRENDS

The following items are kept on file by the Collections Department:

- a. Number of SSO's on an annual basis
- b. Total volume of SSO's
- c. Volume of SSO's captured in relation to total volume of SSO's
- d. SSO's by cause
- e. Mainline stoppages on an annual basis
- f. Mainline stoppages by cause
- g. Ratio of planned sewer cleaning to unplanned sewer cleaning on an annual basis
- h. Maintenance history, log of pump station adjustments due to changes of flow
- i. Response time to service call outs
- j. Number of complaints
- k. Number of service calls



Section 10: Internal Audits

The General Order specifies the following requirements with respect to the Internal Audit element of the SSMP:

The SSMP shall include internal audit procedures, appropriate to the size and performance of the system, for the Enrollee to comply with section 5.4 (Sewer System Management Plan Audits) of the General Order.

Per Section 5.4 of the General Order, at a minimum, an internal audit must:

- Evaluate the implementation and effectiveness of the District's SSMP in preventing spills.
- Evaluate the District's compliance with the General Order.
- Identify SSMP deficiencies in addressing ongoing spills and discharges to waters of the State.
- Identify necessary modifications to the SSMP to correct deficiencies.

Audit programs are intended to provide controls for ensuring that all programs associated with the SSMP are being implemented as planned and managed appropriately. Audit outcomes should provide information about challenges and successes in implementing the SSMP by evaluating work practices and operations, documentation, procedures records, and staff for implementation effectiveness and consistency. The audit will identify any program or policy changes that may be needed to continually improve effective implementation. Information collected as part of an audit should be used in to plan program or procedure revisions necessary to improve program performance.

10.0 Schedule

The District will conduct an internal audit of its SSMP, at a minimum frequency of once every three years. The audit's due date is within six months after the end of the three-year audit period. Table 1-1 includes the District's next audit due date and audit periods. The District will submit a complete audit report that includes using CIWQS:

- Audit findings and recommended corrective actions.
- A statement that sewer system operators' input on the audit findings has been considered.
- A proposed schedule for the Enrollee to address the identified deficiencies.

10.1 Responsible Parties for Program Audit

The LRO is responsible for coordinating and compiling the major aspects of the program audit, including relevant interviews and data collection. The LRO may also designate key District staff that are knowledgeable in the District's sanitary sewer collection facilities to assist in the audits. The District's sewer system operators must be involved in completing the audit. The audit must be completed internally under the supervision of the LRO.



10.2 Program Audit Report

The District's LRO will be responsible for coordinating the major aspects of the program audit, including relevant interviews and data collection as it relates to the SSMP audit. The information gathered for the purpose of an SSMP audit may include the following, but not be limited to:

- Reviewing the progress made on the development of SSMP elements.
- Reviewing the status of the SSMP programs implemented.
- Identifying the success of various SSMP programs implemented.
- Identifying the improvements necessary to various SSMP programs.
- Describing system improvements within the audit period.
- Describing planned system improvements.
- Reviewing data related to spill occurrences.

Upon completion of the information gathering, the District must document the results in an audit report. The LRO will certify and submit an audit report to the online CIWQS Sanitary Sewer System Database per the requirements in Section 3.10 of Attachment E1 of the General Order. The District must retain the audit report on file in compliance with the General Order. A copy of the report must be submitted to the State and Regional Water Boards.

The current 2025 Audit is attached as Appendix E.



Section 11: Communication Program

The General Order specifies the following requirements with respect to the Communication Program of the SSMP:

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

The public for:

- Spills and discharges resulting in closures of public areas, or that enter a source of drinking water, and
- The development, implementation, and update of its Plan, including opportunities for public input to Plan implementation and updates.

Owners/operators of systems that connect into the Enrollee's system, including satellite systems, for:

- System operation, maintenance, and capital improvement-related activities.

This section presents a summary of the steps to be taken by the District to communicate with the public on the development, implementation, and performance of the SSMP.

11.0 S-K-F District's Official Website

The District's current outreach efforts include maintaining a website (www.skfcsd.org) to inform the public about District activities. The District's website is an effective communication channel for providing alerts and news to the public. The website provides access to various District departments, and links to diverse information, important announcements, agendas for District Council meetings, and other key information for District residents. The District can utilize the website to publish its SSMP to provide the public the opportunity to view and offer input to the District as the SSMP elements are implemented. In addition, the District can utilize the website to notify the public of important upcoming activities related to sewer system management.

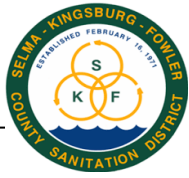
11.1 Public Education and Outreach Media

Annually the District participates in the following events to distribute information about the collection system as well as answer customer questions:

- Selma, Kingsburg, Fowler festivals.
- Career day at the High Schools.
- The District gives Public Outreach materials to all three City Halls to distribute to residents for personal use such as grease cups to aid in keeping Fats, Oils, and Grease out of household drains, sharps containers, magnets.



- The District Participates annually in the Chamber Mixer where all three cities we serve come out to our Plant and learn about what we do through personal tours given by Staff, and communication from the General Manager.
- The District has a partnership with Valley Regional Occupational Program to provide job shadowing to students in the wastewater industry.
- Update Website as needed.



Appendix A

District Contact Information

Contact Information

Position	Name	Phone	Email
Collections Supervisor	Jimmy Floyd	559-647-1647	jfloyd@skfcsd.org
Asst. Collections Supervisor	Richard Westerling	559-832-3374	rwesterling@skfcsd.org
Plant Operations Manager	Craig Perry	559-647-1619 e	cperry@skfcsd.org
Asst. Plant Operations Supervisor	Richard Craig	559-647-1625	rcraig@skfcsd.org
Engineering Technician II	Frank Hernandez	559-647-0216	fhernandez@skfcsd.org
Engineering Technician II	Randy Caballero	559-356-9778	rcaballero@skfcsd.org
Executive Asst. to GM	Alicia Kirk	559-897-6500 ext. 213	akirk@skfcsd.org
General Manager/District Engineer	Veronica Cazares	559-897-6500 ext. 230	vcazares@skfcsd.org
Collections Standby	-	559-647-0919	-



Appendix B

Sanitary Sewer Overflow Response Plan



Appendix C

Sanitary Sewer Overflow Response Operational Guidelines



Appendix D

Implementation Schedule

Item	Implementation Date
SSMP Program Audits	Tri-Annual
Sanitary Sewer Manhole Inspection Form	February 2026
Pump Station Inspection Form	February 2026
Spare Part Inventory List	February 2026
Ordinance No 92 Update	July 2026
Past Due Audits 8/2015, 8/2019, 8/2021	March 2026
Update Construction Standards	January 2025
Update SSO Emergency Response Plan	December 2025



Appendix E

Current 2025 Audit

