

	XI. SSMP PROGRAM AUDITS
	DATE ISSUED: 4-6-09
	DATE REVISED: 10-2-2014, 11-17-2016, 2-12-2019, 02-23-2021, 5-2-2024
WASTEWATER COLLECTIONS	APPROVED BY: Robert Englert

City of Modesto
 Sewer System Management Plan (SSMP)
 2024 Audit Report

The City evaluates the effectiveness of each element of the SSMP at least every two years and will continue to work with other agencies and groups to identify and implement the best management practices through the SSMP.

The Wastewater Collection System staff completed an internal SSMP audit on Feb 23, 2021. In the last two years, the Wastewater Collection System division has experienced only a few minor changes to operations; these changes are reflected in this audit. The minor changes include supervisory changes and updates to the Monitoring, Measurement, and Program Modifications. All audit findings were corrected prior to the completion of this audit report.

The City of Modesto officially assumed operation of the Empire Sanitary District service area on July 1, 2016. Upon assuming operations, Wastewater Collections crews cleaned and performed CCTV inspections of the entire Empire sewer system. This work was completed by March 2016.

The City’s CMMS (Lucity) has been fully implemented since 2019 and provides real-time mobile access for all Wastewater Collections crews. This provides crews with instant access to GIS map updates, work history, and emergency work orders. In the last two years, the City has improved and refined the sewer hotspot cleaning program.

The Complimentary Lateral Program assists City of Modesto customers with lower lateral maintenance. Through this program, customers can call the City when they experience a sewer backup and Collections crews will clear the lower lateral using municipal lateral machines. This program helps the customer and encourages our “Call Us First” program. Early notification is essential to preventing an SSO when a stoppage occurs, so this program helps the City meet our SSO reduction goals.

		Element #
		Element Title
		Sub-Element
		Element Description
		Does the current SSMP meet the requirements of the WDR?
		What changes are needed to comply with the new WDR?
		Does this need updating?
		Was this element updated to meet the requirements of the WDR?
		Scheduled date for addressing deficiencies
		Date Reviewed
		Reviewed By
1	Goals	
	1	<p>The goal of the Sewer System Management Plan (Plan) is to provide a plan and schedule to:</p> <ul style="list-style-type: none"> (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
	No	Combine into and goal, add Regulatory context, SSMP update schedule, and add asset overview. Change goal length to SSS.
	Yes	Yes
1.1	<p>Regulatory Context</p> <p>The Plan Introduction section must provide a general description of the local sewer system management program and discuss</p>	
No	Not previously included	
Yes, add new section	Yes, add new section	
11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
1.2	conducting internal audits. The schedule must include milestones for incorporation of activities addressing prevention of sewer spills.	
No	Not previously included	
Yes, add new section	Yes, add new section	
11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB

1.3	Sewer System Asset Overview The Plan Introduction section must provide a description of the Enrollee-owned assets and service area, including but not limited to:	No	Not previously included	Yes, add new section	Yes, add new section	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
	• Location, including county(ies);	No	Include in description	Yes	Yes	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
	• Service area boundary;	Yes	Included in GIS	No	No	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
	• Population and community served;	No	Include in description	Yes	Yes	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
	• System size, including total length in miles, length of gravity mainlines, length of pressurized (force) mains, and number of pump stations and siphons;	Yes	In CMMS system, but include in description	Yes	Yes	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
	• Structures diverting stormwater to the sewer system;	No	Need to identify cross-connections in Lucity	Yes	Yes	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB

Legal Authority

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Enforce any violation of its sewer ordinances, service agreements, or other legally binding procedures;	Yes, but need to update lang	No	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
Ensure access for maintenance, inspection, and/or repairs for portions of the service lateral owned and/or operated by the Enrollee;	Yes		No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
Require that sewers and connections be properly designed and constructed;	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
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	No	Add storm Collaboration	Yes	Yes	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
Prevent illicit discharges into its sanitary sewer system from inflow and infiltration (I&I); unauthorized stormwater; chemical dumping; unauthorized	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
The Plan 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	No	Plan does not include links or copies	Yes	Yes	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB

			Obtain easement accessibility agreements for locations requiring sewer system operations and maintenance, as applicable	Yes, but need to research Empire San.		No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
4	4		The Plan must include the items listed below that are appropriate							
	4.1	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 service area boundaries.	No, current maps do not show Empire area storm. Board does not have access to current maps	Update Empire storm	Yes	Yes	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB	
	4.2	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:	Yes, but need to update maintenance activity description	Update SOP	Yes	Yes	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB	
	4.3	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	No, need additional General Order training	Better define training	Yes	Yes	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB	

		4.4	Equipment Inventory An inventory of sewer system equipment, including the identification of critical replacement and spare parts.	Yes, but update needed , include lateral equipment, and pump mechanics and electrical.	Update equipment list	Yes	Yes	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
5	Design and Performance Provisions	5	The Plan must include the following items as appropriate and applicable to the							
		5.1	Updated design criteria, and construction standards and specifications, for the construction, installation, repair, and rehabilitation of existing and proposed system infrastructure	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
		5.2	Procedures and Standards for the inspection and testing of newly constructed, newly installed, repaired, and rehabilitated system pipelines, pumps, and other equipment and appurtenances	Testing and inspection standards need to be updated and included	Add testing standards	Yes	Yes	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB

Spill Emergency Response Plan

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Contain a spill and prevent/minimize discharge to waters of the State or any drainage conveyance system;	Yes SOP	None	No	No		5/2 /20 24	RE, BE, AG, JA, JD, AG, CS, KB
Address emergency system operations, traffic control and other necessary response activities;	Review SOP C- 10?	Review SOP	No	No		5/2 /20 24	RE, BE, AG, JA, JD, AG, CS, KB
Ensure that appropriate staff and contractors implement the Spill Emergency Response Plan and are appropriately trained;	Yes	none	No	No		5/2 /20 24	RE, BE, AG, JA, JD, AG, CS, KB
Comply with the notification, monitoring and reporting requirements of this General Order, State law and applicable Regional <small>Water Board Order.</small>	Yes	none	No	No		5/2 /20 24	RE, BE, AG, JA, JD, AG, CS, KB
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;	Yes	none	No	No		5/2 /20 24	RE, BE, AG, JA, JD, AG, CS, KB
Notify primary responders, appropriate local officials, and appropriate regulatory agencies of a spill in a timely manner;	Yes	none	No	No		5/2 /20 24	RE, BE, AG, JA, JD, AG, CS, KB
The Plan must include an up to date Spill Emergency Response Plan to <small>ensure</small>							

			Document and report spill events as required in this General Order; and	Yes	See SOP C-11	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
			Annually, review and assess effectiveness of the Spill Emergency Response Plan, and update the Plan as needed	Yes	Updte SOP C-11	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
7	7		The Sewer System Management Plan must include procedures for the evaluation of the Enrollee's service area to determine whether a sewer pipe blockage							
			An implementation plan and schedule for a public education and outreach program that promotes proper disposal of pipe-blocking substances;	Yes, but need to include plan and schedule	Add plan and schedule	Yes	Yes	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
			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	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
			The legal authority to prohibit discharges to the system and identify measures to prevent spills and blockages;	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB

∞	System Evaluation	∞	Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, best management practices.	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
			Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the fats, oils, and grease ordinance.	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
			An identification of sanitary sewer system sections subject to fats, oils, and grease blockages and establishment of a cleaning schedule for each section;	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
			Implementation of source control measures for all sources of fats, oils, and grease reaching the sanitary sewer system for each section identified above.	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
∞	System Evaluation	∞	The Plan must include procedure s and activities for:							
			Routine evaluation and assessment of system conditions;	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB

		Capacity assessment and design criteria;	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
		Prioritization of corrective actions; and	Yes, review SOP	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
		A capital improvement plan.	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
	8.1	System Evaluation and Condition Assessment							
		Evaluate the sanitary sewer system assets utilizing the best practices and technologies available	Yes	New SOP?	Yes	Yes	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
		Identify and justify the amount (percentage) of its system for its condition to be assessed each year	Yes	New SOP?	Yes	Yes	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB

			Prioritize the condition assessment of system areas that: Hold a high level of environmental consequences if vulnerable to collapse, failure, blockage, capacity issue, or other	No, need to update to include enviro areas	Update SOP	Yes	Yes	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
			Assess the system conditions using visual observations, video surveillance and/or other comparable system inspection methods;	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
			Utilize observations/evidence of system conditions that may contribute to exiting of sewage from the system which can reasonably be expected to discharge into a water of the	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
			Maintain documents and recordkeeping of system evaluation and condition assessment inspections and activities; and	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
			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	No, need to evaluate	Update SOP	Yes	Yes	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
8.2	Capacity Assessment and Design Criteria The Plan must include procedures to identify system components that are experiencing or contributing to									

		Capacity of flood-prone systems subject to increased infiltration and inflow, under normal local and regional storm conditions;	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
		Capacity of systems subject to increased infiltration and inflow due to larger and/or higher-intensity storm events as a result of climate change;	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
		Increases of erosive forces in canyons and streams near underground and aboveground system components due to larger and/or higher-intensity storm events;	Yes	Update SOP	Yes	Yes	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
		Capacity of major system elements to accommodate dry weather peak flow conditions, and updated design storm and wet weather events; and	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
		Necessary redundancy in pumping and storage capacities.	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
8.3	Prioritization of Corrective Action The findings of the condition assessments and capacity assessments must be used to prioritize corrective actions.	No, we need to add to SOP	Update SOP	Yes	Yes	Yes	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB

		8.4								
			Capital Improvement Plan The capital improvement plan must include the following items:							
			Project schedules including completion dates for all portions of the capital improvement program;	No	Update CIP	Yes	Yes	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
			Internal and external project funding sources for each project;	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
			Joint coordination between operation and maintenance staff, and engineering staff/consultants during planning, design, and construction of capital improvement projects.	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
9										
Monitoring										
		9								
			The Plan must include an Adaptive Management section that addresses							
			Maintaining relevant information, including audit findings, to establish and prioritize appropriate Plan activities;	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB

			Monitoring the implementation and measuring the effectiveness of each Plan Element;	No	Update SOP	Yes	Yes	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
			Assessing the success of the preventive operation and maintenance activities;	Yes	Update SOP	Yes	Yes	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
			Updating Plan procedures and activities, as appropriate, based on results of monitoring and performance evaluations; and	Yes	None	No	No		5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
			Identifying and illustrating spill trends, including spill frequency, locations and estimated volumes	Yes, need to train	Update SOP	Yes, include training schedule	Yes, include training schedule	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB
04	Internal	10	The Plan shall include internal audit procedures, appropriate to the size and performance of the system, for the Enrollee to comply	Yes	None	Update Element	Update Element	11/2/2024	5/2/2024	RE, BE, AG, JA, JD, AG, CS, KB

Communication Program

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<p>Owners/operators of systems that connect into the Enrollee's system, including satellite systems, for: System operation, maintenance, and capital improvement-related activities</p>	<p>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</p>	<p>The Plan must include procedures for the Enrollee to communicate with</p>	<p>No</p>	<p>No</p>	<p>No</p>	<p>No</p>	<p>No</p>	<p>5/2/2024</p>	<p>RE, BE, AG, JA, JD, AG, CS, KB</p>
<p>No</p>	<p>No</p>	<p>No</p>	<p>No</p>	<p>No</p>	<p>No</p>	<p>5/2/2024</p>	<p>RE, BE, AG, JA, JD, AG, CS, KB</p>		