CITY OF FORTUNA
SEWER SYSTEM MANAGEMENT PLAN

Prepared for:

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INTRODUCTION

This Sewer System Management Plan (SSMP) has been prepared in compliance with requirements of the State Water Resources Control Board (SWRCB) pursuant to Statewide Sanitary Sewer Systems General Order 2022-0103-DWQ included in Appendix A. The Waste Discharge Requirements (WDR) requires development and implementation of a written SSMP and defines eleven mandatory SSMP elements. The WDR also defines associated monitoring, record keeping, reporting, and public notification requirements.

The City of Fortuna developed an initial SSMP dated April 2011 and has completed the following audits and updates:

Development History	
Original SSMP	2011
SSMP Audit (Attached Appendix C)	2017
SSMP Update	2018
SSMP Update (this document)	2023

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This SSMP (2023) is an update of the initial SSMP and has incorporated the results of the SSMP Audit and the new requirements of General Order 2022-0103-DWQ. The schedule for future audits and updates is included below:

Schedule	
SSMP Audit	2026
SSMP Audit	2029
SSMP Update	2029

This SSMP is intended to be a living document and should be updated as needed to reflect changes to the SSMP elements. The intent of this SSMP is to meet the requirements of the General Order 2022-0103-DWQ. This document presents eleven elements in the order presented in the WDR:

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

Sewer System Asset Overview

As contained in the City of Fortuna NPDES permit, ORDER No. R1-2017-0005, the City owns, operates, and maintains a municipal wastewater treatment plant and associated collection system and disposal facilities. The Facility is located in Humboldt County and serves approximately 12,000 residential, commercial, and institutional

users in the City of Fortuna. The City also has an agreement with Palmer Creek CSD to provide sewer service for the District.

Fortuna is located in Humboldt County California and serves a population of 12,516. The boundary of the service area is shown in the Figure below. The sewer collection system is 52.4 total miles in length, consisting of 50 miles of gravity mainline, 2.4 miles of pressurized mainline, and 9 lift stations, and 1 siphon. There are no known structures diverting stormwater to the sewer system. Fortuna's sewer system consists of 90% residential, 10% commercial, and 0% industrial.

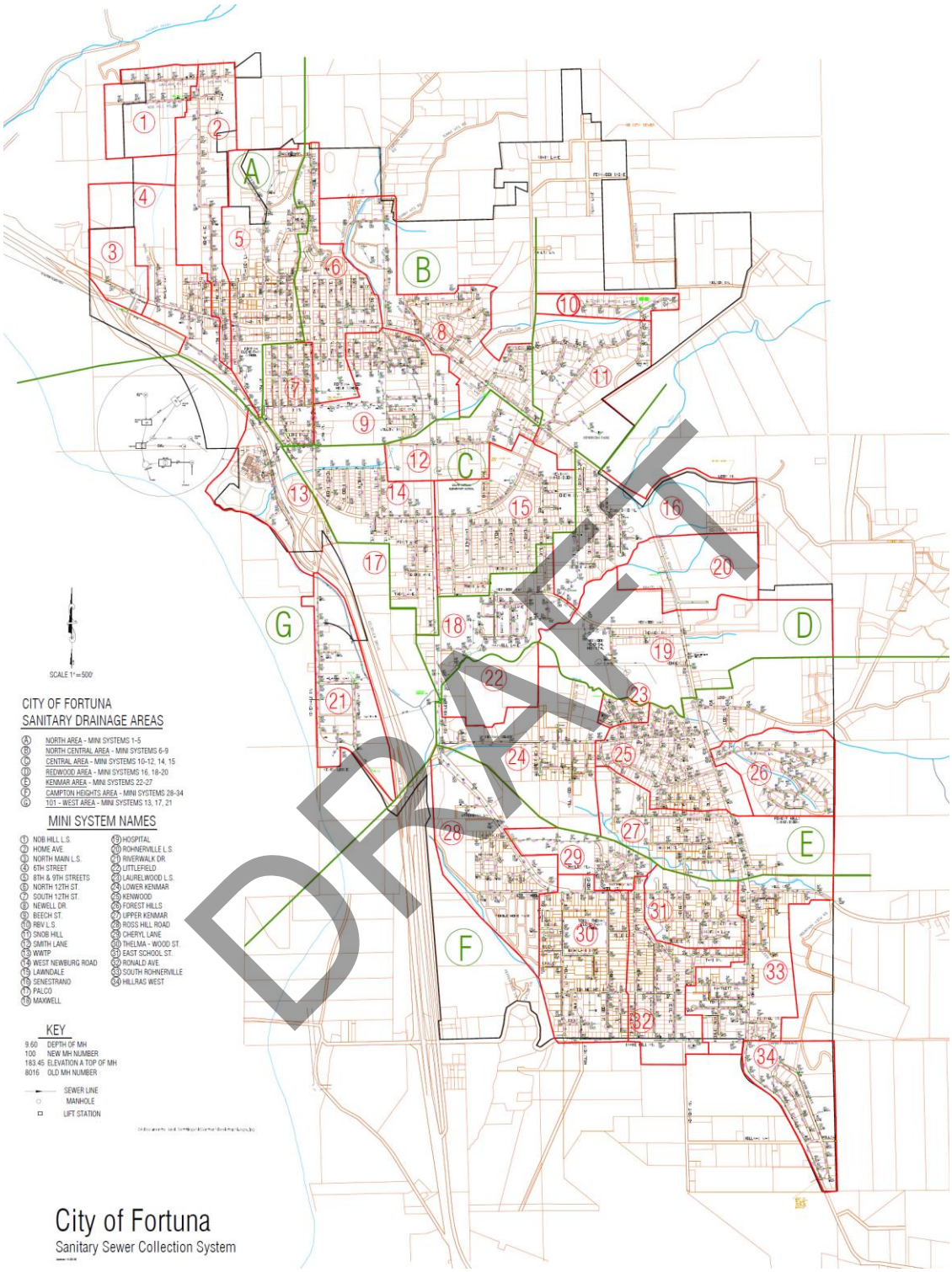
Fortuna utilizes Excel spreadsheets on an internal, shared City drive for data management system. The current wastewater treatment system consists of flow equalization, screening, grit removal, influent pumping, primary sedimentation, activated sludge processes, secondary sedimentation, chlorination, de-chlorination, and pH adjustment as well as anaerobic biosolids digestion, dewatering and composting. The Facility is currently designed to treat an average dry-weather flow (ADWF) of 1.5 million gallons per day (mgd) and reports an influent peak wet weather flow (PWWF) capacity of 6.0 mgd. Peak influent flows over 3-4 mgd are diverted to equalization ponds and returned for treatment during low flow periods.

From October 1 through May 14 each year, wastewater may be discharged through Discharge Point 001 to Strong's Creek, a water of the United States, and a tributary to the Eel River within the Ferndale hydrologic subarea. During the summer months (May 15 through September 30), treated wastewater is discharged to two percolation ponds adjacent to the Eel River at Discharge Point 003.

The solids handling facilities are designed to accommodate a capacity of 1.9 mgd. Biosolids generated during the treatment process are thickened, anaerobically digested and dewatered using a belt filter press. The biosolids are composted to Class A Exceptional Quality requirements. The dewatered biosolids are currently stored onsite and disposed of in accordance with Title 14 and EPA 503 requirements. Disposal activities are conducted in accordance with the City's Biosolids Management Plan and Waiver of Waste Discharge Requirements.

In Fortuna, the upper lateral is the responsibility of the private entities (dischargers) and the lower lateral is the responsibility of the City. The "upper lateral" is considered the section of pipe from the clean-out to the house. The "lower lateral" is considered the piping from the clean-out to the sewer.

The City of Fortuna maintains and updates a set of sanitary sewer system maps utilizing Computer Assisted Drafting (CAD) software. The sanitary sewer system maps are updated with new and rehabilitated facilities by City of Fortuna Public Works staff on an as-needed basis. The City has digital storm drainage system maps that are contained in the City of Fortuna 2005 Storm Drainage Master Plan, and maintains a set of storm drainage system maps utilizing Computer Assisted Drafting (CAD) software. Copies of sanitary sewer maps and storm drainage maps are provided in Appendix D. Electronic copies of the maps are maintained at the wastewater office and are available to State and Regional Water Board staff upon request.


SCALE 1"=500'
CITY OF FORTUNA
SANITARY DRAINAGE AREAS
(A) NORTH AREA - MINI SYSTEMS 1-5
(B) NORTH CENTRAL AREA - MINI SYSTEMS 6-9
(C) CENTRAL AREA - MINI SYSTEMS 10-12, 14, 15
(D) REDWOOD AREA - MINI SYSTEMS 16, 18-20
(E) KENMAR AREA - MINI SYSTEMS 22-27
(F) CAMPTON HEIGHTS AREA - MINI SYSTEMS 28-34
(G) 101 - WEST AREA - MINI SYSTEMS 13, 17, 21
MINI SYSTEM NAMES
1 NOB HILL L.S.
2 HOME AVE.
3 NORTH MAIN L.S.
4 6TH STREET
5 8TH & 9TH STREETS
6 NORTH 12TH ST.
7 SOUTH 12TH ST.
8 NEWELL DR.
9 BEECH ST.
10 RBV L.S.
11 SNOB HILL
12 SMITH LANE
13 WWTP
14 WEST NEWBURG ROAD
15 LAWNDALE
16 SENESTRANO
17 PALCO
18 MAXWELL
19 HOSPITAL
20 ROHNERVILLE L.S.
21 RIVERWALK DR.
22 LITTLEFIELD
23 LAURELWOOD L.S.
24 LOWER KENMAR
25 KENWOOD
26 FOREST HILLS
27 UPPER KENMAR
28 ROSS HILL ROAD
29 CHERYL LANE
30 THELMA - WOOD ST.
31 EAST SCHOOL ST.
32 RONALD AVE.
33 SOUTH ROHNERVILLE
34 HILLRAS WEST
KEY
9.60 DEPTH OF MH
100 NEW MH NUMBER
183.45 ELEVATION A TOP OF MH
8016 OLD MH NUMBER
SEWER LINE
MANHOLE
LIFT STATION
City of Fortuna
Sanitary Sewer Collection System

ELEMENT 1: GOALS

The intent of this section is to identify the goals that the City has established for its SSMP. These goals are intended to provide focus for City staff to continue proactive management of its wastewater collection system.

1.1 Regulatory Requirements for the Goals Element

The WDR states that the SSMP goal is to provide a plan and schedule to:

(1) properly manage, operate, and maintain all parts of the City's sanitary sewer system(s);
(2) reduce and prevent spills; and
(3) contain and mitigate spills that do occur.

1.2 SSMP Goals

The goals of the City of Fortuna's SSMP include:

- Maintaining or improving the condition of the collection system infrastructure in order to provide reliable services now and into the future;
- Cost-effectively minimizing infiltration/inflow (I/I) and provide adequate sewer capacity to accommodate design storm flows;
- Minimizing the number and impact of sanitary sewer overflows (SSOs) that occur;
- Preventing unnecessary damage to public and private property;
- Working cooperatively with local, state, and federal agencies to investigate the causes of, minimize, and mitigate the impacts of SSOs;
- Meeting all applicable regulatory notification and reporting requirements;
- Being available and responsive to the needs of the public to prevent and restore interruptions in service, and to minimize public health and property impacts related to SSOs;
- Implementing regular, proactive maintenance of the system to remove and control roots, debris, and fats, oils and grease (FOG) that may cause SSOs;
- Prioritizing renewal and replacement of wastewater collection system facilities to maximize their useful life and optimize capital expenditures; and
- Maintaining the SSMP, which will serve as a reference for the City's sanitary sewer system management practices.

ELEMENT 2: ORGANIZATION

The intent of this section of the SSMP is to identify the City staff members responsible for implementing this SSMP, responding to SSO events, and meeting the SSO reporting requirements. This section also includes the designation of the Legally Responsible Official (LRO) or authorized representative to meet SWRCB requirements for completing and certifying spill reports.

2.1 Regulatory Requirements for the Organization Element

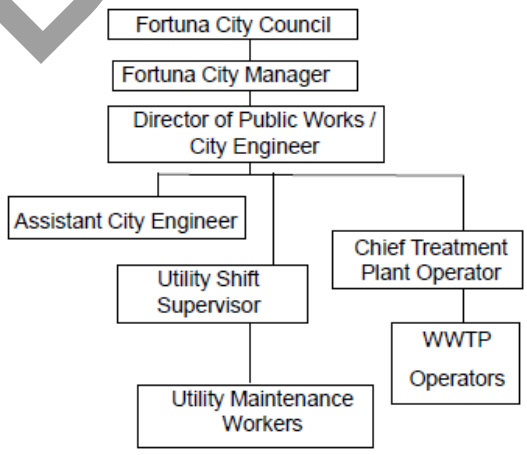
The WDR requires that the Organization element of the SSMP provide the following:

- The name of the responsible or authorized representative;
- The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program.
- Include lines of authority as shown in an organization chart or similar document with a narrative explanation; and
- The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Boards and other agencies if applicable.

2.2 Organization

The City of Fortuna owns and operates a wastewater system. The City provides conveyance and treatment, under contractual agreements with Palmer Creek CSD but does not fund, operate, or have control over the Palmer Creek CSD collection system. The City is governed by a City Council, which is comprised of five Council Members, who approve the necessary funding for all City departments. The Department of Public Works administers the wastewater program.

The organization chart below illustrates the positions and lines of authority through which the wastewater program is administered.



The lines of authority are clearly diagrammed from the City Council, through the Director of Public Works, to each individual position. Each position within the City's organization has specific and clearly defined responsibilities and authorities that are designed to meet the City's goals for the wastewater program and collectively cover all of the SSMP elements. This ensures that each element of the program is properly addressed and accomplished.

A description of the roles for wastewater collection system agency staff is described below:

City Council – Establishes policy.

City Manager – Enforces policy, plans strategy, directs staff, allocates resources, delegates responsibility and authorizes outside contractors to perform services.

Director of Public Works – Responsible for directing, developing, implementing, evaluating, and administering the operations and staff required to design, construct, operate, and maintain the City's water, sewer, and storm drain infrastructure.

City Engineer – Prepares wastewater collection system planning documents, manages capital improvement plans, documents new and rehabilitated assets.

Assistant City Engineer – Assists City Engineer, works to direct, develop, implement, evaluate, and administer the operations and staff required to design, construct, operate, and maintain the City's water, sewer, and storm drain infrastructure, develops capital improvement plans. Ensures that new and rehabilitated assets meet City standards, works with field crews to handle emergencies when contractors are involved, provides reports to the City Engineer, and implements enforcement actions.

Utility Shift Supervisor – Manages field operations and maintenance activities, provides relevant information to the Director of Public Works, assists Chief Treatment Plant Operator in preparing and implementing contingency plans, leads emergency response, investigates and reports SSOs, trains field crews and coordinates development and implementation of SSMP with the Chief Treatment Plant Operator.

Chief Treatment Plant Operator – Provides relevant information to the Director of Public Works, assists Utility Shift Supervisor in preparing and implementing contingency plans, assists in training field crews and helps coordinate development and implementation of SSMP with the Utility Shift Manager.

Utility Maintenance Worker – Staff that conduct preventive and corrective maintenance activities on the City's sewer collection system, mobilize and respond to notification of stoppages and SSOs.

WWTP Operators – Staff that conduct preventive and corrective maintenance activities at the City's sewer lift stations and wastewater treatment plant.

The City is not responsible for the organization of Palmer Creak CSD staff or for implementing the SSMP within the CSD. The CSD owns its own collection system within the unincorporated areas of Humboldt County and responds to SSOs in their service area.

The City's organizational goal is to clearly define responsibility and authority for accomplishing each program work element. This is accomplished through organization charts, work assignments, and position descriptions.

Each position is responsible for its own work assignments. Principal positions within the Department of Public Works that have responsibility for the wastewater collection system are shown in the following table. Accountability is assured by monitoring and reporting by the various positions at weekly staff meetings. The Director of Public Works oversees these meetings and monitors the progress of various functions and activities within the SSMP.

Position	Name	Phone Number
City Manager	Merritt Perry	707-725-1410
City Engineer	Brendan Byrd	707-725-1469
Director of Public Works	Brendan Byrd	707-725-1469
Utility Shift Supervisor	Jessie Suelzle	707-725-1479
Chief Treatment Plant Operator	Christopher Christianson	707-725-1476
Assistant City Engineer	Vacant	707-725-1470

2.3 Authorized Representative

The Utility Shift Supervisor Jessie Suelzle is the Legally Responsible Official (LRO) or duly authorized representative to prepare, certify and submit electronic spill reports to the Regional Water Quality Control Board (RWQCB) and SWRCB and to notify other government agencies.

2.4 SSO Reporting Chain of Communication

Sanitary sewer overflow (SSO) detection, notification, response and reporting processes will be described in Element 6 – Sewer Emergency Response Plan. The SSO detection, notification, and response process is discussed below. Operation and maintenance crews continually monitor the condition and performance of the system with the goal of identifying and fixing any potential problem before it becomes an SSO. In addition, the City has stepped up its efforts to assess the condition of sewers in the collection system. Once a spill is reported or observed, it immediately becomes the highest priority.

Citizens can report any problems with the wastewater collection system 24 hours per day, 7 days per week. During normal business hours reports are made to City Hall at 707-725-7600. City Hall forwards the information to the Utility Shift Supervisor. Once it is determined that the SSO is inside the service area and outside of a building, the Utility Shift Supervisor dispatches the collections crew.

After hours reports are made to the Fortuna Police Department by calling 707-725-7550. The Fortuna Police Department has a Utility Callout List and forwards the information to

the On-Call Collections Crew. Once it is determined that the SSO is inside the service area and outside of a building, the On-Call Collections Crew will be dispatched.

All overflow incidences are immediately reported to the Utility Shift Supervisor and the Director of Public Works. A crew is assembled by the Utility Shift Supervisor. Onsite documentation will be collected by the Utility Shift Supervisor. The City emphasizes timely and accurate notification and reporting. The chain of communication for reporting SSOs has been effective. The City maintains a minimum time in responding to an SSO and meets its legal obligation and social responsibility for notification and reporting.

With documentation provided by the Utility Shift Supervisor, the Director of Public Works makes sure the proper agencies are contacted, starting with the City Manager. The decision is then made, depending on the SSO, to contact additional resources as needed (the order will also be determined by the nature of the event):

Agency	Contact	Phone Number
Humboldt County Division of Environmental Health	Environmental Health Specialist	(707)-445-6215
Fortuna Volunteer Fire Department	Russ Brown, Fire Chief	(707) 725-5021
Fortuna City Police	Casey Day, Police Chief	(707) 725-7550
Humboldt County Sheriff	William F. Honsal Sheriff	**(**707)-445-7251
Regional Water Quality Control Board, North Coast Region	Justin McSmith, Water Resource Control Engineer	(707) 576-2220

ELEMENT 3: LEGAL AUTHORITY

This element of the SSMP discusses the City of Fortuna's Legal Authority, including the Fortuna Municipal Code (FMC) and agreements with other agencies. This section fulfills the Legal Authority requirement for the WDR (Element 3).

3.1 Regulatory Requirements for the Legal Authority Element

The requirements for the Legal Authority element of the SSMP are summarized below. The City must demonstrate, through collection system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:

1. Prevent illicit discharges into its wastewater collection system (examples may include infiltration and inflow (I/I), stormwater, chemical dumping, unauthorized debris and cut roots, etc.);
2. 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;
3. Require that sewers and connections be properly designed and constructed;
4. Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;
5. Enforce any violation of its sewer ordinances, service agreements, or other legally binding procedures; and
6. Obtain easement accessibility agreements for locations requiring sewer system operations and maintenance, as applicable.

3.2 City of Fortuna's Legal Authority

The legal authority required for the SSMP is contained within Fortuna's Municipal Code. Six chapters of the Fortuna Municipal Code are dedicated to the sewer system, all included in Title 13, Utilities, Division II Public Sewers (Appendix B):

- Chapter 13.20 – General Provisions. Includes provisions to prevent and control pollution to protect human health.
- Chapter 13.28 – Sewer Connections and Construction. Provides regulations for sewer connections, maintenance, testing, and permits.
- Chapter 13.32 – Sewer Use. Specifies prohibited discharges, requires grease interceptors, and describes discharges requiring preliminary treatment.
- Chapter 13.36 – Industrial Wastewater. Requires permits for industrial wastewater discharge and specifies conditions for sampling and pretreatment.
- Chapter 13.56 – Permits and Fees. Requires permits for all work involving the public sewer system.
- Chapter 13.60 – Administration and Enforcement. Provides the authority to enforce violations of the sewer ordinance.

The chapters listed above pertain to the legal authority required for fulfillment of SSMP requirements. These chapters are included in full in Appendix B. Portions of these chapters are discussed in the following subsections as they pertain to prevention of illicit discharges, proper design and construction of sewer connections, maintenance access, and enforcement measures.

Fortuna has also adopted the 2022 California Plumbing Code. All discussions in the following subsections on the City's legal authority, as required by the SSMP, are based on Fortuna's existing Municipal Code as of the date of this plan. The sections that fulfill the requirements of the SSMP are indicated below:

1. **Prevent illicit discharges into its wastewater collection system (examples may include infiltration and inflow (I/I), storm water, chemical dumping, unauthorized debris and cut roots, etc.);**

Prevention of Illicit Discharges
Measures prohibiting illicit discharges are included in Chapter 13.32, Sewer Use. The specific purpose of the chapter is to prevent the discharge of any pollutant into the sewers that would obstruct or damage the collection system, interfere with treatment, or threaten harm to human health or the environment. Examples of discharges covered are included below. Refer to Fortuna's Municipal Code included in Appendix B for the complete text.

Stormwater and I/I. Section 13.20.070 makes it unlawful to dispose of any sewage except via a connection to a public sewer. Section 13.32.010 prohibits discharge of uncontaminated water, including stormwater, into a sanitary sewer through direct or indirect connection.

Industrial Waste. Section 13.36.010 requires all industrial waste dischargers to obtain a permit and prohibits discharge in excess of the permit allowance. The permit issued may require pretreatment or include other provisions for wastewater quality and quantity. Additional regulations (13.36.020 – 13.36.050) detail permitting policies.

Other Discharges. Chapter 13.32 outlines appropriate sewer use, along with an extensive list of prohibited discharges into Fortuna's sanitary sewer.

2. **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;**

The City of Fortuna, Department of Public Works is the stormwater agency as well as the agency responsible for implementing the SSMP. No special agreements or authority is necessary to ensure collaboration or coordination between Public Works staff.

3. **Require that sewers and connections be properly designed and constructed;**

Proper Design and Construction of Sewers and Connections
Regulations pertaining to the design, construction, and inspection of building sewers and connections are included in Chapter 13 of the Fortuna Municipal Code.

- Permit Required. A permit is required prior to constructing a building or lateral sewer or connecting to a public sewer (section 13.28.010 and 13.28.110).
- Design and Construction Requirements. Section 13.28.020 – 13.28.170 specifies design and construction requirements in accordance with standard City specifications.
- Inspection and Testing. All building sewers and laterals must be tested and shall be complete and in full compliance with all requirements of the standard improvement specifications and to the satisfaction of the City Engineer, per section 13.20.170.

4. Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;

Per Fortuna Municipal Code 13.20.170 Inspectors – Powers and authorities, "The officers, inspectors, managers and any duly authorized employees of the City are specifically required to enforce the provisions of this division and shall have the right to enter any and all premises for the purpose of inspection, reinspection, observation, measurement, sampling, testing, or otherwise performing such duties as may be necessary."

5. Enforce any violation of its sewer policies.

The City's general provisions for all sewer regulations listed in Title 13 are specified in Chapter 13.20. Chapter 13.60 includes enforcement measures for violations of provisions included in Title 13. Written notice is provided to persons in violation, with a time limit for correction. Further enforcement provisions include declaration of a public nuisance and disconnection from public sewers. The person in violation is liable to the City for the costs to achieve compliance.

6. Obtain easement accessibility agreements for locations requiring sewer system operations.

The only locations requiring sewer system operations and maintenance are within Fortuna city limits. There are no agreements necessary to access the sewer system within the Fortuna city limits.

ELEMENT 4: OPERATION AND MAINTENANCE PROGRAM

4.1 Regulatory Requirements for the Operations and Maintenance Program Element

The WDR states that the City shall develop and implement an Operations and Maintenance (O & M) Program which should include the following:

- The City must maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments, manholes, pumping facilities, pressure pipes, valves, and applicable storm water conveyance facilities;
- The City must describe routine preventive operation and maintenance activities by staff and contractors; including a system for scheduling: Inspection and maintenance activities: Higher-frequency inspections and maintenance of known problem areas, including areas with tree root problems; and Regular visual and closed-circuit television (CCTV) inspections of manholes and sewer pipes.
- The City must provide training on a regular basis for staff in sanitary sewer system operations, maintenance, and require contractors to be appropriately trained. Training must include: The requirements of the General Order 2022-0103-DWQ: The Enrollee's Spill Emergency Response Plan procedures and practice drills; Skilled estimation of spill volume for field operators; and Electronic CIWQS reporting procedures for staff submitting data.
- The City must provide equipment and replacement part inventories, including identification of critical replacement parts.

4.2 Maps

The City of Fortuna maintains a set of sanitary sewer system maps utilizing Computer Assisted Drafting (CAD) software. The sanitary sewer system maps are updated with new and rehabilitated facilities by City of Fortuna Public Works staff on an as-needed basis. The City has digital storm drainage system maps that are contained in the City of Fortuna 2005 Storm Drainage Master Plan, and maintains a set of storm drainage system maps utilizing Computer Assisted Drafting (CAD) software. Copies of sanitary sewer maps and storm drainage maps are provided in Appendix D. Electronic copies of the maps are maintained at the wastewater office. Hard copies of these maps are kept in the wastewater office and in field vehicles and are used to locate and identify wastewater and storm drainage structures and to aid in the response to SSOs. The City is in the process of having these two data sets merged into a GIS platform and will generate a combined wastewater and storm drainage atlas which will be utilized in the office and in the field.

4.3 Preventive Operations and Maintenance Program

The wastewater treatment plant (WWTP) performs a variety of scheduled, preventive, predictive, and breakdown maintenance on a diverse spectrum of equipment. The main goal of maintenance activities is to ensure equipment availability and reliability to meet plant process operation requirements. The City prioritizes its preventive maintenance activities. The preventive maintenance program includes compiling and maintaining a list of areas within the system that require repeated maintenance, referred to as "hot spots".

The preventive maintenance program includes monthly scheduled jet-rodding of the hot spots list, regular inspection of lift stations, and investigation of customer complaints.

Gravity Sewers
The City currently uses in-house services for routine and emergency sewer cleaning as needed. The City uses its field crews to complete most emergency repairs. The City hires contractors through the competitive bidding process to correct larger problems.

The primary focus of the City's preventive maintenance activities is on grease. The City of Fortuna maintains a list of hot spots. Preventive maintenance on the hot spots are performed and documented every 60 days. The City maintains tables indicating the manhole that was entered, direction of rodding and total feet of sewer cleaned. An example of the hot spot list and documentation are included in Appendix E.

Lift Stations and Force Mains
The City's force mains O & M program consists of periodic inspections and corrective maintenance activities conducted by City staff. Flow inspections are made periodically from the manholes located at the intersection of the force main and the gravity sewer line. The location of the manholes permits access for upstream cleaning of the force mains. The City's WWTP staff is responsible for the City's nine lift stations. The City performs daily inspections of each lift station. Daily inspections include visual check of the equipment, manual cycling of pumps, and checking and cleaning floats if it is needed. The Supervisory Control and Data Acquisition (SCADA) computer system records and stores alarms automatically. Removal of debris from lift stations is conducted every six months or when a problem begins to form. Lift stations are inspected extensively every year. Extensive maintenance includes cleaning sumps and removing pumps for inspection and repairs if necessary. Lift station inspections are tracked in log books that are kept in the Lab with other "City Rounds" equipment. Lift station maintenance is recorded in the Plant Log Book. Backup generators for the lift stations are tested monthly. The lift stations currently have Programable Logic Controllers (PLCs) that communicate alarms via radio to the SCADA computer, which utilizes a computer autodialer to call a cell phone that is kept by the primary on-call WWTP worker, then the on-call WWTP shift supervisor, then the Chief Plant Operator, then the Police Dispatch.

Root Control
The City has very little problems with roots throughout the system. If closed circuit television (CCTV) determines roots are an issue in a line, root cutting is performed with mechanical cutters.

Odor Control
The City receives very few odor complaints per year. The complaints are often in areas of low flows where septic conditions exist. The City has no official odor control program in place. When there are complaints, City crews flush the sewer lines and attempt to plug holes in the manhole lids where odors may be escaping the system.

Non-Routine Maintenance
The City utilizes contract services for emergency cleaning and a combination of contract and in-house services for cleaning known trouble spots. Non-routine maintenance activities include investigation and response to any complaints regarding a manhole

overflow, missing or shifted manhole covers, manhole covers that are excessively noisy, residential plumbing problems, lift station malfunction, unexpected sewer odor, etc. Sewer complaints are investigated and appropriate actions are taken to resolve the source of the problem.

Special Needs Maintenance
The City has a hot spots sewer cleaning program for identified problematic line segments to prevent blockages and SSOs with a one month cleaning cycle. Frequencies of cleaning cycles may be adjusted based on the observations during the sewer cleaning. The frequency will be shortened for line segments with moderate to heavy accumulations and extended for line segments with lesser accumulations.

Emergency Maintenance
The City's collection system facilities have periodically experienced blockages and/or SSOs that require unplanned maintenance under emergency conditions. The City has developed emergency maintenance procedures contained within their Sewer Emergency Response Plan (SERP), for more information. Refer to Element 6.

Information Systems/Data Collection
The City currently tracks maintenance activities using paper work orders. The City has the goal of developing and implementing an electronic work order tracking system.

4.4 Training

The WWTP has developed a comprehensive Operator Training Program that expands the abilities of the operational staff, resulting in better service to the public. WWTP operating staff attends the trainings. The City of Fortuna offers numerous in-house training programs and participates in the California Water Environmental Association (CWEA) certification program which requires ongoing continuing education to maintain certifications. The trainings include:

- CPR
- First Aid
- Chlorine Safety
- Driver Safety
- Sludge Dewatering Systems
- Confined Space Entry
- Trenching Training
- Back Safety
- Flagging Training
- Lockout/Tagout procedures
- SSO First Response
- Chemical Spill Evacuation Protocol

The status of operator certification at the treatment plant for 2023 includes One Grade IV/ Two Grade III/ One Grade II/ One Grade I/ Two OIT. The City of Fortuna currently requires contractors to have the following training:

- Control of Hazardous Entry (Lock out/tag out)
- Energized Electrical Work

- Confined Space
- Blood Borne Pathogen
- Annual review of City's Sanitary Sewer Overflow and Backup Emergency Response Plan

4.5 Contingency Equipment and Replacement Parts Inventory

The City has a consumable inventory list for the Public Works Wastewater Division. The City currently has equipment on hand to bypass sewer failures and lift station failures, such as portable pumps, and quick connections for hoses. The City has registered as a member in the California Water/ Wastewater Agency Response Network (CalWARN). As stated on the CalWARN website (https://www.calwarn.org/), its mission "is to support and promote statewide emergency preparedness, disaster response, and mutual assistance processes for public and private water and wastewater utilities." This organization will facilitate access to repair parts, and sharing of available resources in emergencies, as necessary. The City of Fortuna maintains critical replacement parts lists for the following critical pieces of equipment:

2001, 2011, 2022 Vac-Con® Critical Replacement Parts in Inventory

- Vickers hydraulic pump
- Main pump control valve and handle
- Water bypass control valve
- Hydraulic bypass control valve
- Water pump belt
- Extension boom
- Elbow weldment
- Hydraulic solenoid valve
- Various filters

2001, 2011, 2022 Vac-Con® Equipment Replacement Parts in Inventory

- Deflector shield for tube
- Water tank site tube
- 10" gaskets
- 8" gaskets
- Wing nut and lock for backdoor
- Hime joints and cam rollers
- Quick couplers
- Curved arms for back door
- Lock and pivots for backdoor
- Kanaflex hose and clamps
- Seal for tank inlet and outlet
- Spare gauge
- Vacuum level latch
- Electric wire
- Headlights
- Taillights
- Turn signals
- Warning beacon

- Electrical connections
- Reflectors
- Nuts and bolts
- Extra hose tips (grease cutter)

2001, 2011, 2022 Vac-Con® Equipment Replacement Parts Availability

- **Rodding Hose:** 600 feet of high-pressure rodding hose, which came with the Vac-Con® in 2000 and 600 feet of new hose, March 2009.
- **Tires:** Hummel Tire, the Goodyear dealer in Fortuna, keeps rear tires for the Vac-Con® in stock and has to order front tires. Orders take several days but Hummel's can patch any flats on the vehicle and keep it operational.
- **Hydraulic Hoses**: Custom hydraulic hoses can be made at either Peterson Tractor Company (local Caterpillar dealer) or at the local NAPA dealer. These Hoses can be made to order the same day.
- **Special Order parts:** All other Vac-Con® parts can be special ordered from Municipal Maintenance Equipment (MME) in Sacramento, or from the Vac-Con® factory in Florida. These parts can be shipped express mail overnight and be at the repair facility in the morning.

2008 PipeHunter-Model 7834 Trailer Critical Replacement Parts in Inventory

- Filters are in inventory.
- **Tires:** Hummel Tire, the Goodyear dealer in Fortuna, stocks the proper size tire for the PipeHunter.
- **Hydraulic Hoses**: Custom hydraulic hoses can be made at either Peterson Tractor Company (local Caterpillar dealer) or at the local NAPA dealer. These hoses can be made-to-order the same day.
- **Engine Parts**: Engine parts can be ordered from Ferndale Tractor, the local John Deere dealer. If parts are not in stock they can be shipped express mail overnight and be at the repair facility in the morning.
- **Special Order parts:** All other PipeHunter parts can be special ordered from Municipal Maintenance Equipment (MME) in Sacramento. These parts can be shipped express mail overnight and be at the repair facility in the morning.

2018 Express Enclosed 10' x 6' Camera Trailer

- **Equipped with Cues software and computer screens, one 32 inch TV screen in the back compartment.**
- **Cues Hunter WTR III Transporter, Can inspect pipe sizes 6 through 24 inch.**
- **750 pound Western Mule crane.**
- **Air compressor with two gallon tank.**
- **Water pump and storage tank for washing off equipment.**
- **7,000 watt EU Honda generator that powers the trailer.**

ELEMENT 5: DESIGN AND PERFORMANCE PROVISIONS

The intent of this section of the SSMP is to document the City's design and performance provisions.

5.1 Regulatory Requirements for the Design and Performance Provisions

The WDR requires that the Design and Performance element of the SSMP provide the following:

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

5.2 Standards for Installation, Rehabilitation and Repair

Section 13.28.020 – 13.28.170 of the Fortuna Municipal Code specifies design and construction requirements in accordance with Standard City Specifications.

5.3 Standards for Inspection and Testing of New, Rehabilitated, and Repaired Facilities

All building sewers and laterals must be tested in the presence of a duly authorized employee of the City, per Section 13.28.070 of the Fortuna Municipal Code. The City of Fortuna adopted an updated sewer lateral ordinance in 2018.

ELEMENT 6: SPILL EMERGENCY RESPONSE PLAN

The intent of this section of the SSMP is to document the City's Spill Emergency Response Plan (SERP).

6.1 Regulatory Requirements for the Spill Emergency Response Plan

The City shall develop and implement a SERP that identifies measures to protect public health and the environment. At a minimum, this 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 this 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 this General Order; and
- Annually, review and assess effectiveness of the Spill Emergency Response Plan, and update the Plan as needed.

The City's Spill Emergency Response Plan is contained as Appendix F and complies with the above requirements. Annually, the City of Fortuna Public Works Department conducts a tailgate safety meeting on SSO classification identification and spill response procedures. This consists of a general discussion and highlighting of the CIWQS website information.

(https://www.waterboards.ca.gov/water_issues/programs/ciwqs/chc_sso.html).

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ELEMENT 7: SEWER PIPELINE BLOCKAGE CONTROL PROGRAM

The intent of this section of the SSMP is to document the City's FOG Program and identify program additions.

7.1 Regulatory Requirements for the Sewer Pipeline Blockage Control Program

The Sewer System Management Plan 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 City has developed the Fortuna, Fats, Oils, and Grease (FOG) Policy (2010) which covers many of the requirements and is included in Appendix G.

The Pipeline Blockage Control Program 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, oils, and grease ordinance;
- An identification of sanitary sewer system sections subject to fats, oils, and grease blockages and establishment of a cleaning schedule for each section; and
- Implementation of source control measures for all sources of fats, oils, and grease reaching the sanitary sewer system for each section identified above.

The City of Fortuna has a FOG Control Policy (2010) and a FOG ordinance.

7.2 Public Education and Outreach Program

The City of Fortuna has developed a FOG Control Policy that is included in Appendix G. The City of Fortuna's FOG policy includes public education and outreach during the FOG application process, the inspection process and through the schools sewer use program sponsored by the Fortuna Wastewater Treatment staff. Public education and outreach occur at the time of the FOG inspections that take place at a frequency based on individual facility compliance history. During the initial FOG inspection process the City

representative provides operators with copies of the City's FOG Control Policy and Ordinance. During all inspections, the City representative discusses the importance of FOG control and answers questions.

7.3 Disposal of FOG

FOG discharge to the sewer is prohibited. Users are required to properly dispose of pretreatment wastes (brown grease) and cooking grease (yellow grease). Neither City nor County has a registration system for FOG waste haulers. The City of Fortuna WWTP does not accept trucked or hauled waste at this time. There are exceptions. For instance, Fortuna accepted the gray-water from a fire camp off Highway 36 in 2020. The City of Fortuna budget also has a section on discharge fees, which amount to $100.00 per truckload of septic, portable toilet, and contaminated water. In general, they do not accept trucked or hauled waste, but they can make an exception.

The City does not own or operate a FOG disposal facility. Licensed FOG hauling contractors are available for the Fortuna area and are required to dispose of grease to a certified disposal facility. The frequency of cleaning for a FSE's grease control device will be on a case-by-case basis and therefore a schedule for FOG disposal will also be on a case-by-case basis.

7.4 Legal Authority for FOG Program

Section 13.32.040 prohibits discharge of grease to a public sewer, and Section 13.32.070 of the Fortuna Municipal Code requires an interceptor when necessary. Section 13.32.080 also includes requirements for maintaining interceptors. FOG prohibitions are covered by Section 13.32.040; paragraph 9, which prohibits discharge of any oils and fats in excessive concentrations that would tend to cause adverse effects on the sewerage system. Additionally, Section 13.32.040, paragraph 4 prohibits discharge of solids that will obstruct or be detrimental to the collection system.

7.5 Requirements to Install Grease Removal Devices

The Fortuna Municipal Code Section 13.32.040 prohibits discharge of grease to a public sewer, and Section 13.32.070 requires an interceptor when necessary. Section 13.32.080 also includes requirements for maintaining interceptors.

7.6 Authority to Inspect Grease Producing Facilities

The Fortuna Municipal Code contains the authority to inspect facilities in Section 13.20.160 and170.

Section 13.20.160

The Director of Public Works may personally perform or employ some fit and qualified person or persons to perform the duties of inspecting the installation, connection, maintenance, and use of all side sewers, public sewers, and facilities in connection therewith in the City, to be known as the City inspector. (Ord. 76-360 § 210).

Section 13.20.170

The officers, inspectors, managers and any duly authorized employees of the City are specifically required to enforce the provisions of this division and shall have the right to enter any and all premises for the purpose of inspection, reinspection, observation, measurement, sampling, testing, or otherwise performing such duties as may be

necessary. Enforcement of this provision shall be in accordance with Sections 1822.50 to 1822.57 of the Civil Procedure Code of the state of California. (Ord. 78-409 § 1; Ord. 76-360 § 1102).

7.7 Identification of Grease Problem Areas and Sewer Cleaning

The City of Fortuna maintains a list of hot spots, primarily caused by grease blockages. Preventive maintenance on the hot spots are performed and documented monthly. Examples of the hot spot list and documentation are included in Appendix E.

7.8 FOG Source Control

The City of Fortuna has developed and implemented a FOG Control Policy (2010) that is included in Appendix G. Implementation of the FOG Control Policy includes the following steps:

- Development of a FOG source list;
- Perform initial inspections;
- Follow-up inspections to verify maintenance;
- Create FOG records system for the retention of site-specific FOG information; and
- Perform semi-annual FOG inspections and maintain records.

ELEMENT 8: SYSTEM EVALUATION, CAPACITY ASSURANCE, AND CAPITAL IMPROVEMENTS

This section of the SSMP discusses the City's capacity management measures, and recommended capacity improvement projects.

8.1 Regulatory Requirements for the System Evaluation, Capacity Assurance, and Capital Improvements

The WDR requirements for the System Evaluation, Capacity Assurance, and Capital Improvements element of the SSMP are summarized below:

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

8.2 System Evaluation and Condition Assessment

The Plan must include procedures to:

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

The City uses state-of-the-art CCTV equipment to inspect and assess the condition of secondary and primary sewers, depending on size and flow levels. The CCTV inspections are prioritized by staff using a ranking system that incorporates age, size, construction material, and known problem sewers.

The City is in the process of camera-inspecting all of its sewer lines. Plans are that this initial investigation and assessment will be complete in May 2024.

High priority deficiencies are those with a high level of environmental consequences including vulnerability to collapse, failure, blockage, capacity issues, or other system deficiencies that are located in the vicinity of surface waters, steep terrain, high groundwater elevations, and environmentally sensitive areas, or are within the vicinity of a receiving water with a bacterial-related impairment on the most current Clean Water Act section 303(d) List.

Prior to this current endeavor, in 2018, the City hired SHN consultant engineers to conduct a Sanitary Sewer Evaluation Survey (SSES). Part of that project was a substantial inspection of a large area of the City's sewer system. In total, adding this area to what the City has already inspected, 12 miles of 52 miles of sewer mains have been inspected (23%). There are 40 miles remaining to inspect (77%). The City has created a Capital Improvement Project (CIP) project (#9122) to hire specialists to help finish the remaining mileage before the compliance due date.

Fortuna maintains documents and recordkeeping of system evaluation and condition assessment inspections and activities in Excel spreadsheets on an internal, shared City drive.

Fortuna has contracted and is currently working with GHD engineers on a Sewer System Model and Master Plan (City CIP# 9110). Part of this plan will be to identify improvements needed to develop future projects and provide proper capacity of the City's collection system. Climate change will be factored into this study.

8.3 Capacity Assessment and Design Criteria

The City has also contracted with GHD engineering to develop an updated model and master plan for the sewer system of the entire City (CIP# 9110). This report will provide information that City staff can use to identify and develop future improvement projects, and also assess proper capacity of the City's sewer collection system. Specifically, the report will identify areas of the collection system subject to inflow and infiltration, and how to mitigate peak flows associated with sewer spills. The report will also address pumping and storage capacities at the City's nine sewer lift stations, as well as general condition assessments of the collection system capacities at both dry weather peak and wet weather flows.

8.4 Prioritization of Corrective Actions

Based on a prioritization of the corrective actions, the City of Fortuna has developed and maintains a Capital Improvement Plan that includes sanitary sewer projects. The section of the CIP that covers sewer projects is included in Appendix H.

8.4 Capital Improvement Plan

Fortuna has developed and maintains a Capital Improvement Plan that includes sanitary sewer projects. The section of the CIP that covers sewer projects is included in Appendix H.

ELEMENT 9: MONITORING, MEASUREMENTS, AND PROGRAM MODIFICATIONS

This section of the SSMP discusses parameters the City tracks to monitor the success of the SSMP and how the City plans to keep the SSMP current.

9.1 Regulatory Requirements for the Monitoring, Measurements, and Program Modifications

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

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

9.2 Monitoring Information

The City will maintain information that can be used in SSMP performance monitoring through the CIWQS database administered by the State and Regional Water Quality Control Boards to track information under the statewide general SSO order. All CIWQS information is available through the Public Reports portal at:

http://www.waterboards.ca.gov/water_issues/programs/ciwqs/publicreports.html

9.3 Performance Measures

The indicators that the City will use to measure the performance of its wastewater collection system and the effectiveness of its SSMP are:

- Total number of SSO locations per year;
- Volume of spilled wastewater recovered (million gallons per year (MGY) compared to total volume of wastewater spilled (MGY); and
- Volume of spilled wastewater discharged to surface waters (MGY) compared to total volume of wastewater spilled (MGY).

These parameters were selected because they are straightforward, quantitative, and focused on results. These parameters are also available to both City staff and the public at all times through the CIWQS system.

9.4 Performance Monitoring and Program Changes

The SSMP should be updated periodically to maintain current information, and programs need to be enhanced or modified if they are determined to be less effective than needed. The City will evaluate the performance of the wastewater collection system using the performance measures listed in Section 9.3. The City will review the successes and needed improvements of the SSMP as part of the SSMP tri-annual audit, described in Element 10.

City staff will update critical information, such as contact numbers and the SSO response chain-of-communication, as needed. A comprehensive SSMP update will occur every six years, as required by the SWRCB.

ELEMENT 10: INTERNAL AUDITS

The intent of this section of the SSMP is to document the City's auditing program.

10.1 Regulatory Requirements for the SSMP Program Audits

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

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

10.2 SSMP Audits Discussion

The City will audit its SSMP every three years. The first audit will be completed prior to August 2026 and will cover the second half of 2023, calendar years 2024, 2025, and the first half of 2026. The audit will determine whether the SSMP meets the current requirements of the WDR, whether the SSMP reflects the City's current practices, and whether the City is following the SSMP.

The audit will be conducted by a team consisting of the City's Public Works Department Staff. The audit team may also include members from other areas of the City, outside agencies, and/or contractors. The scope of the audit will cover each of the sections of the SSMP.

The results of the audit will be included in the Audit Report. The Audit Report may contain information about successes in implementing the most recent version of the SSMP and identify revisions that may be needed for a more effective program. Information collected as part of Element 9 Monitoring, Measurement, and Program Modifications will be used in preparing the audit. Tables, figures, and/or charts may be used to summarize information about these indicators.

The City will update its SSMP at least every six years. An update will be completed on or before August 2029.

The City will determine the need to update its SSMP more frequently based on the results of the tri-annual audits and the performance of its sanitary sewer system using information from the Monitoring and Measuring Program. In the event that the City decides that an update is warranted, the process to complete the update will be identified at that time. The City will complete the update within one year following identification of the need for the update.

City Staff will seek the approval from the City Council for any significant changes to the SSMP. The authority for approval of minor changes such as employee names, contact information, or limited procedural changes is delegated to the Director of Public Works.

ELEMENT 11: COMMUNICATION PLAN

The intent of this section of the SSMP is to identify a plan to communicate information regarding the City's SSMP activities to the public. The plan includes a process for the public to receive SSMP information as well as provide input to the City on the SSMP.

11.1 Regulatory Requirements for the Communication Plan

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

- The City shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP;
- The communication system shall provide the public the opportunity to provide input to the City as the program is developed and implemented; and
- The City shall create a plan of communication with systems that are tributary and/or satellite to the City's sanitary sewer system.

11.2 Communication Plan

The City has several methods for communicating information to and receiving information from the public. The following methods have been identified as alternatives that would be effective as part of the City's Communication Plan.

- **City Website** – The City will evaluate the use of a webpage on the City's existing website to facilitate the transfer of information to the public regarding the SSMP. This webpage would include the entire SSMP, audit performance information, and associated information. The webpage would also serve as a venue for soliciting input from the public on the SSMP.

- **Monthly Water and Sewer Billing** – An annual notice regarding the sanitary sewer system performance can be included in monthly water and sewer billings. The notice would contain general SSMP information. The notice could also refer the customers to the City website for additional details, if an SSMP webpage is implemented. The notice would be printed in both English and Spanish.

- **Notices in Public Spaces** – Notices of the SSMP project could be posted and handouts made available in public spaces such as City Hall and the library. Information would be presented in English and Spanish and have references to the City's website with additional information, if an SSMP webpage is implemented.

- **City Council Meetings –** City council meetings are public meetings and televised on a local broadcast station. General SSMP information and updates on sanitary sewer system performance could be added as a regular discussion item on the City Council agenda.

- The City will provide a copy of the draft SSMP to Palmer Creek Community Services District for review and comments.

APPENDIX A

STATEWIDE SANITARY SEWER SYSTEMS GENERAL ORDER 2022-0103-DWQ

STATE WATER RESOURCES CONTROL BOARD
1001 I Street, Sacramento, California 95814
ORDER WQ 2022-0103-DWQ

STATEWIDE WASTE DISCHARGE REQUIREMENTS

GENERAL ORDER FOR SANITARY SEWER SYSTEMS

This Order was adopted by the State Water Resources Control Board on December 6, 2022.
This Order shall become effective **180 days after the Adoption Date of this General Order,** on June 5, 2023. The Enrollee shall comply with the requirements of this Order upon the Effective Date of this General Order.

This General Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, protect the Enrollee from liability under federal, state, or local laws, nor create a vested right for the Enrollee to continue the discharge of waste.

CERTIFICATION

I, Jeanine Townsend, Clerk to the Board, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the State Water Board on December 6, 2022.

AYE:	Chair E. Joaquin Esquivel Vice Chair Dorene D'Adamo Board Member Sean Maguire Board Member Laurel Firestone Board Member Nichole Morgan
NAY:	None
ABSENT:	None
ABSTAIN:	None

Courtney Tyler for
Jeanine Townsend
Clerk to the Board

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1. INTRODUCTION

This General Order regulates sanitary sewer systems designed to convey sewage. For the purpose of this Order, a sanitary sewer system includes, but is not limited to, pipes, valves, pump stations, manholes, siphons, wet wells, diversion structures and/or other pertinent infrastructure, upstream of a wastewater treatment plant headworks. A sanitary sewer system includes:

- Laterals owned and/or operated by the Enrollee;
- Satellite sewer systems; and/or
- Temporary conveyance and storage facilities, including but not limited to temporary piping, vaults, construction trenches, wet wells, impoundments, tanks and diversion structures.

Sewage is untreated or partially treated domestic, municipal, commercial and/or industrial waste (including sewage sludge), and any mixture of these wastes with inflow or infiltration of stormwater or groundwater, conveyed in a sanitary sewer system. Sewage contains high levels of suspended solids, non-digested organic waste, pathogenic bacteria, viruses, toxic pollutants, nutrients, oxygen-demanding organic compounds, oils, grease, pharmaceuticals, and other harmful pollutants.

For the purpose of this General Order, a spill is a discharge of sewage from any portion of a sanitary sewer system due to a sanitary sewer system overflow, operational failure, and/or infrastructure failure. Sewage and its associated wastewater spilled from a sanitary sewer system may threaten public health, beneficial uses of waters of the State, and the environment.

This General Order serves as statewide waste discharge requirements and supersedes the previous State Water Resources Control Board (State Water Board) Order 2006-0003-DWQ and amendments thereafter. All sections and attachments of this General Order are enforceable by the State Water Board and Regional Water Quality Control Boards (Regional Water Boards). Through this 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 this General Order that implement the federal Clean Water Act, the California Water Code (Water Code), water quality control plans (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 a Sewer System Management Plan;
- Monitor, track, and analyze spills for ongoing system-specific performance improvements; and
- Report noncompliance with this General Order per reporting requirements.

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

- A state agency, municipality, special district, or other public entity that owns and/or operates one or more sanitary sewer systems:
  - greater than one (1) mile in length (each individual sanitary sewer system);
  - one (1) mile or less in length where the State Water Board or a Regional Water Board requires regulatory coverage under this Order; or
- A federal agency, private company, or other non-governmental entity that owns and/or operates a sanitary sewer system of any size where the State Water Board or a Regional Water Board requires regulatory coverage under this Order in response to a history of spills, proximity to surface water, or other factors supporting regulatory coverage.

For the purpose of this Order, a sanitary sewer system includes only systems owned and/or operated by the Enrollee.

2. REGULATORY COVERAGE AND APPLICATION REQUIREMENTS

2.1. Requirements for Continuation of Existing Regulatory Coverage

To continue regulatory coverage from previous Order 2006-0003-DWQ under this General Order, **within the 60-days-prior-to the Effective Date of this General Order**, the Legally Responsible Official of an existing Enrollee shall electronically certify the Continuation of Existing Regulatory Coverage form in the online California Integrated Water Quality System (CIWQS) Sanitary Sewer System Database. The Legally Responsible Official will receive an automated CIWQS-issued Notice of Applicability email, confirming continuation of regulatory coverage under this General Order. All regulatory coverage under previous Order 2006-0003-DWQ will cease on the Effective Date of this Order.

An Enrollee continuing existing regulatory coverage is not required to submit a new application package or pay an application fee for enrollment under this General Order. The annual fee due date for continued regulatory coverage from previous Order 2006-0003-DWQ to this General Order remains unchanged.

A previous Enrollee of Order 2006-0003-DWQ that fails to certify the Continuation of Existing Regulatory Coverage form in the online CIWQS database by the Effective Date of this Order is considered a New Applicant, and will not have regulatory coverage for its sanitary sewer system(s) until:

- A new application package for system(s) enrollment is submitted per section 2.2 (Requirements for New Regulatory Coverage) below; and
- The new application package is approved per section 2.2.2 (Approval of Application Package (For New Applicants Only)).

2.2. Requirements for New Regulatory Coverage

No later than 60 days prior to commencing and/or assuming operation and maintenance responsibilities of a sanitary sewer system, a duly authorized representative that

maintains legal authority over the public or private sanitary sewer system is required to enroll under this General Order by submitting a complete application package as specified below and as provided in Attachment B (Application for Enrollment Form) of this General Order.

Unless required by a Regional Water Board, a public agency that owns a combined sewer system subject to the Combined Sewer Overflow Control Policy (33 U.S. Code § 1342(q)), is not required to enroll, under this Order, the portions of its sanitary sewer system(s) that collects combined sanitary wastewater and stormwater.

2.2.1. Application Package Requirements

The Application for Enrollment package for new applicants must include the following items:

- **Application for Enrollment Form**. The form in Attachment B of this General Order must be completed, signed, and certified by a Legally Responsible Official, in accordance with section 5.1 (Designation of a Legally Responsible Official) of this General Order. If an electronic Application for Enrollment form is available at the time of application, a new applicant shall submit its application form electronically; and
- **Application Fee**. A fee payable to the "State Water Resources Control Board" in accordance with the Fee Schedule in the California Code of Regulations, Title 23, section 2200, or subsequent fee regulations updates.

  The application fee for this General Order is based on the sanitary sewer system's threat to water quality and complexity designations of category 2C or 3C, which is assigned based on the population served by the system. The current Fee Schedule for sanitary sewer systems is listed under subdivision (a)(2) at the following website: Fee Schedule (https://www.waterboards.ca.gov/resources/fees/water_quality/).

2.2.2. Approval of Application Package (For New Applicants Only)

The Deputy Director of the State Water Board, Division of Water Quality (Deputy Director) will consider approval of each complete Application for Enrollment package. The Deputy Director will issue a Notice of Applicability letter which serves as approved regulatory coverage for the new Enrollee.

If the submitted application package is not complete in accordance with section 2.2.1 (Application Package Requirements) of this General Order, the Deputy Director will send a response letter to the applicant outlining the application deficiencies. The applicant will have 60 days from the date of the response letter to correct the application deficiencies and submit the identified items necessary to complete the application package to the State Water Board.

2.2.3. Electronic Reporting Account for New Enrollee

Within 30 days after the date of the Approval of Complete Application Package for System Enrollment, a duly authorized representative for the Enrollee shall obtain a CIWQS Sanitary Sewer System Database user account by clicking the "User Registration" button and following the directions on the CIWQS Login Page

(https://ciwqs.waterboards.ca.gov). If additional assistance is needed to establish an online CIWQS user account, contact State Water Board staff by email at CIWQS@waterboards.ca.gov. The online user account will provide the Enrollee secure access to the online CIWQS database for electronic reporting.

2.3. Regulatory Coverage Transfer

Regulatory coverage under this General Order is not transferable to any person or party except after an existing Enrollee submits a written request for a regulatory coverage transfer to the Deputy Director, at least 60 days in advance of any proposed system ownership transfer. The written request must include a written agreement between the existing Enrollee and the new Enrollee containing:

- Acknowledgement that the transfer of ownership is solely of an existing system with an existing waste discharge identification (WDID) number;
- The specific ownership transfer date in which the responsibility and regulatory coverage transfer between the existing Enrollee and the new Enrollee becomes effective; and
- Acknowledgement that the existing Enrollee is liable for violations occurring up to the ownership transfer date and that the new Enrollee is liable for violations occurring on and after the ownership transfer date.

The Deputy Director will consider approval of the written request. If approved, the Deputy Director will issue a Notice of Applicability letter which serves as an approved transfer of regulatory coverage to the new Enrollee.

3. FINDINGS

3.1. Legal Authorities

3.1.1. Federal and State Regulatory Authority

The objective of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the waters of the United States (33 U.S.C. 1251). The Water Code authorizes the State Water Board to implement the Clean Water Act in the State and to protect the quality of all waters of the State (Water Code sections 13000 and 13160).

3.1.2. Discharge of Sewage

A discharge of untreated or partially treated sewage is a discharge of waste as defined in Water Code section 13050(d) that could affect the quality of waters of the State and is subject to regulation by waste discharge requirements issued pursuant to Water Code section 13263 and Chapter 9, Division 3, Title 23 of the California Code of Regulations. A discharge of sewage may pollute and alter the quality of the waters of the State to a degree that unreasonably affects the beneficial uses of the receiving water body or facilities that serve those beneficial uses (Water Code section 13050(l)(1)).

3.1.3 Water Boards Authority to Require Technical Reports, Monitoring, and Reporting

Water Code sections 13267 and 13383 authorize the Regional Water Boards and the State Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. Water Code section 13267(b), authorizes the Regional Water Boards to "require any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region… or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of water within its region shall furnish, under penalty of perjury, technical or monitoring reports which the regional board requires…In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports and shall identify the evidence that supports requiring that person to provide the reports." Water Code section 13267(f) authorizes the State Water Board to require this information if it consults with the Regional Water Boards and determines that it will not duplicate the efforts of the Regional Water Boards. The State Water Board has consulted with the Regional Water Boards and made this determination.

The technical and monitoring reports required by this General Order and Attachment E (Notification, Monitoring, Reporting and Recordkeeping Requirements) are necessary to evaluate and ensure compliance with this General Order. The effort to develop required technical reports will vary depending on the system size and complexity and the needs of the specific technical report. The burden and cost of these reports are reasonable and consistent with the interest of the state in protecting water quality, which is the primary purpose of requiring the reports.

Water Code section 13383(a) authorizes the Water Boards to "establish monitoring, inspection, entry, reporting, and recordkeeping requirements… for any person who discharges, or proposes to discharge, to navigable waters, any person who introduces pollutants into a publicly owned treatment works, any person who owns or operates, or proposes to own or operate, a publicly owned treatment works or other treatment works treating domestic sewage, or any person who uses or disposes, or proposes to use or dispose, of sewage sludge." Section 13383(b) continues, "the state board or the regional boards may require any person subject to this section to establish and maintain monitoring equipment or methods, including, where appropriate, biological monitoring methods, sample effluent as prescribed, and provide other information as may be reasonably required."

Reporting of spills from privately owned sewer laterals and systems pursuant to section 5.15 (Voluntary Reporting of Spills from Privately-Owned Sewer Laterals and/or Private Sanitary Sewer Systems) of this General Order is authorized by Water Code section 13225(c) and encouraged by the State Water Board, wherein a local agency may investigate and report on any technical factors involved in water quality control provided the burden including costs of such reports bears a reasonable relationship to the need for the report and the benefits to be obtained therefrom. The burden of reporting private spills under section 5.15 (Voluntary Reporting of Spills from Privately-Owned Sewer Laterals and/or Private Sanitary Sewer Systems) is minimal and is outweighed by the benefit of providing Regional Water Boards an opportunity to respond to these spills

when an Enrollee, which in many cases has a contractual relationship with the owner of the private system, has knowledge of the spills.

3.1.4. Water Board Authority to Prescribe General Waste Discharge Requirements

Water Code section 13263(i) provides that the State Water Board may prescribe general waste discharge requirements for a category of discharges if the State Water Board finds or determines that:

- The discharges are produced by the same or similar operations;
- The discharges involve the same or similar types of waste;
- The discharges require the same or similar treatment standards; and
- The discharges are more appropriately regulated under general waste discharge requirements than individual waste discharge requirements.

Since 2006, the State Water Board has been regulating over 1,100 publicly owned sanitary sewer systems (See section 3.1.5 (Previous Statewide General Waste Discharge Requirements) of this General Order). California also has a large unknown number of unregulated privately owned sanitary sewer systems. All waste conveyed in publicly owned and privately owned sanitary sewer systems (as defined in this General Order) is comprised of untreated or partially treated domestic waste and/or industrial waste. Generally, sanitary sewer systems are designed and operated to convey waste by gravity or under pressure; system-specific design elements and system-specific operations do not change the common nature of the waste, the common threat to public health, or the common impacts on water quality. Spills of waste from a sanitary sewer system prior to reaching the ultimate downstream treatment facility are unauthorized and enforceable by the State Water Board and/or a Regional Water Board. Therefore, spills from sanitary sewer systems are more appropriately regulated under general waste discharge requirements.

As specified in Water Code sections 13263(a) and 13241, the implementation of requirements set forth in this Order is for the reasonable protection of past, present, and probable future beneficial uses of water and the prevention of nuisance. The requirements implement the water quality control plans (Basin Plans) for each Regional Water Board and take into account the environmental characteristics of sewer service areas and hydrographic units within the state. Additionally, the State Water Board has considered water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect water quality, costs associated with compliance with these requirements, the need for developing housing within California, and the need to protect sources of drinking water and other water supplies.

3.1.5. Previous Statewide General Waste Discharge Requirements

On May 2, 2006, the State Water Board adopted Order 2006-0003-DWQ serving as Waste Discharge Requirements pursuant to Article 4, Chapter 4, Division 7 of the Water Code (commencing with section 13260) for inadvertent discharges to waters of the State. Order 2006-0003-DWQ prohibited discharges of untreated or partially treated sewage. Order 2006-0003-DWQ also required system-specific management, operation, and maintenance of publicly owned sewer systems greater than one mile in length.

To decrease the impacts on human health and the environment caused by sewage spills, the previous Order required enrollees to develop a rehabilitation and replacement plan that identifies system deficiencies and prioritizes short-term and long-term rehabilitation actions. The previous Order also required enrollees to:

1. Maintain information that can be used to establish and prioritize appropriate Sewer System Management Plan activities; and
2. Implement a proactive approach to reduce spills.

The previous Order required Sewer System Management Plan elements for "the proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management."

On July 30, 2013, the State Water Board amended General Order 2006-0003-DWQ with Order WQ 2013-0058-EXEC, Amending Monitoring and Reporting Program for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems.

Many enrollees of Order 2006-0003-DWQ have already implemented proactive measures to reduce sewage spills. Other enrollees, however, still need technical assistance and funding to improve sanitary sewer system operation and maintenance for the reduction of sewage spills.

3.1.6. Existing Memorandum of Agreement with California Water Environment Association

The California Water Environment Association is a nonprofit organization dedicated to providing water industry certifications, training, and networking opportunities. The Association's Technical Certification Program provides accredited sanitary sewer system operator certification for collection system operators and maintenance workers.

On February 10, 2016, the State Water Board entered into a collaborative agreement with the Association titled *Memorandum of Agreement Between the California State Water Resources Control Board and the California Water Environment Association - Training Regarding Requirements Set Forth in Statewide General Waste Discharge Requirements for Sanitary Sewer Systems*. The Memorandum sets forth collaborative training necessary for regulated sanitary sewer system personnel to operate and maintain a well operating system and ensure full compliance with statewide sewer system regulations.

On March 15, 2018, the State Water Board and the California Water Environment Association amended the existing Memorandum of Agreement to include collaborative outreach and expand training needs associated with further updates to Water Board regulations for sanitary sewer systems. The State Water Board encourages further Agreement updates as necessary to support improved sewer system operations and the professionalism of collection system operators.

3.2. General

3.2.1. Waters of the State

Waters of the State include any surface water or groundwater, including saline waters, within the boundaries of the state as defined in Water Code section 13050(e), and are inclusive of waters of the United States.

3.2.2. Sanitary Sewer System Spill Threats to Public Health and Beneficial Uses

Sewage contains high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen-demanding organic compounds, oil and grease and other pollutants. Sewage spills may cause a public nuisance, particularly when sewage is discharged to areas with high public exposure such as streets and surface waters used for drinking, irrigation, fishing, recreation, or other public consumption or contact uses.

More specifically, sanitary sewer spills may:

- Adversely affect aquatic life and/or threaten water quality when reaching receiving waters;
- Inadvertently release trash, including plastics;
- Impair the recreational use and aesthetic enjoyment of surface waters by polluting surface water or groundwater;
- Threaten public health through direct public exposure to bacteria, viruses, intestinal parasites, and other microorganisms that can cause serious illness such as gastroenteritis, hepatitis, cryptosporidiosis, and giardiasis;
- Negatively impact ecological receptors and biota within surface waters; and
- Cause nuisance including odors, closure of beaches and recreational areas, and property damage.

Sanitary sewer system spills may pollute receiving waters and threaten beneficial uses of surface water and groundwater. Potentially threatened beneficial uses include, but are not limited to the following (with associated acronym representations as included in statewide water quality control plans and Regional Water Boards' Basin Plans):

- Municipal and Domestic Supply (MUN)
- Water Contact Recreation (REC-1) and Non-Contact Water Recreation (REC-2)
- Cold Freshwater Habitat (COLD)
- Warm Freshwater Habitat (WARM)
- Native American Culture (CUL)
- Wildlife Habitat (WILD)
- Rare, Threatened, or Endangered Species (RARE)
- Spawning, Reproduction, and/or Early Development (SPWN)
- Wetland Habitat (WET)
- Agricultural Supply (AGR)
- Estuarine Habitat (EST)

- Commercial and Sport Fishing (COMM)
- Subsistence Fishing (SUB)
- Tribal Tradition and Culture (CUL)
- Tribal Subsistence Fishing (T-SUB)
- Aquaculture (AQUA)
- Marine Habitat (MAR)
- Preservation of Biological Habitats of Special Significance (BIOL)
- Migration of Aquatic Organisms (MIGR)
- Shellfish Harvesting (SHELL)
- Industrial Process Supply (PROC)
- Industrial Service Supply (IND)
- Hydropower Generation (POW)
- Navigation (NAV)
- Flood Peak Attenuation/Flood Water Storage (FLD)
- Water Quality Enhancement (WQE)
- Fresh Water Replenishment (FRSH)
- Groundwater Recharge (GWR)
- Inland Saline Water Habitat (SAL)

3.2.3. Proactive Sanitary Sewer System Management to Eliminate Spill Causes

Finding 3 of the previous Order, 2006-0003-DWQ, states: “Sanitary sewer systems experience periodic failures resulting in discharges that may affect waters of the state. There are many factors (including factors related to geology, design, construction methods and materials, age of the system, population growth, and system operation and maintenance), which affect the likelihood of an SSO [sanitary sewer overflow]. A proactive approach that requires Enrollees to ensure a system-wide operation, maintenance, and management plan is in place will reduce the number and frequency of SSOs within the state. This approach will in turn decrease the risk to human health and the environment caused by SSOs.”

Many spills are preventable through proactive attention on sanitary sewer system management using the best practices and technologies available to address major causes of spills, including but not limited to:

- Blockages from sources including but not limited to:
  - Fats, oils and grease;
  - Tree roots;
  - Rags, wipes and other paper, cloth and plastic products; and
  - Sediment and debris.
- Sewer system damage and exceedance of sewer system hydraulic capacity from identified system-specific environmental, and climate-change impacts, including but not limited to:

- Sea level rise impacts including flooding, coastal erosion, seawater intrusion, tidal inundation and submerged lands;
- Increased surface water flows due to higher intensity rain events;
- Flooding;
- Wildfires and wildfire induced impacts;
- Earthquake induced damage;
- Landslides; and
- Subsidence.

- Infrastructure deficiencies and failures, including but not limited to:
  - Pump station mechanical failures;
  - System age;
  - Construction material failures;
  - Manhole cover failures;
  - Structural failures; and
  - Lack of proper operation and maintenance.
- Insufficient system capacity (temporary or sustained), due to factors including but not limited to:
  - Excessive and/or increased storm or groundwater inflow/infiltration;
  - Insufficient capacity due to population increase and/or new connections from industrial, commercial and other system users; and
  - Stormwater capture projects utilizing a sanitary sewer system to convey stormwater to treatment facilities for reuse.
- Community impacts, including but not limited to:
  - Power outages;
  - Vandalism; and
  - Contractor-caused or other third party-caused damages.

3.2.4. Underground Sanitary Sewer System Leakage

Portions of some sanitary sewer systems may leak, causing underground exfiltration (exiting) of sewage from the system. Exfiltrated sewage that remains in the underground infrastructure trench and/or the soil matrix, and that does not discharge into waters of the State (surface water or groundwater) may not threaten beneficial uses.

Underground exfiltrated sewage may threaten beneficial uses if discharged to waters of the State. Exfiltrated sewage that discharges to groundwater may impact beneficial uses of groundwater and pollute groundwater supply. Additionally, if in close proximity, exfiltrated sewage may enter into a compromised underground drainage conveyance system that discharges into a water of the United States, or into groundwater that is hydrologically connected to (feeds into) a water of the United States, thus potentially causing: (1) a Clean Water Act violation, (2) threat and impact to beneficial uses, and/or (3) surface water pollution.

3.2.5. Proactive Sanitary Sewer System Management to Reduce Inflow and Infiltration

Excessive inflow (stormwater entering) and infiltration (groundwater seepage entering) to sanitary sewer systems is preventable through proactive sewer system management using the best practices and technologies available. The efficiency of the downstream wastewater treatment processes is dependent on the performance of the sanitary sewer system. When the structural integrity of a sanitary sewer system deteriorates, high volumes of inflow and infiltration can enter the sewer system. High levels of inflow and infiltration increase the hydraulic load on the downstream treatment plant, which can reduce treatment efficiency, lead to bypassing a portion of the treatment process, cause illegal discharge of partially treated effluent, or in extreme situations make biological treatment facilities inoperable (e.g., wash out the biological organisms that treat the waste).

3.3. Water Quality Control Plans, Policies and Resolutions

The nine Regional Water Boards have adopted region-specific water quality control plans (commonly referred to as Basin Plans) that designate beneficial uses, establish water quality objectives, and contain implementation programs and policies to achieve those objectives. The State Water Board has adopted statewide water quality control plans, policies and resolutions establishing statewide water quality objectives, implementation programs and initiatives.

3.3.1. State Water Board Antidegradation Policy

On October 28, 1968, the State Water Board adopted Resolution 68-16, titled Statement of Policy with Respect to Maintaining High Quality of Waters in California, which incorporates the federal antidegradation policy. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings.

The continued prohibition of sewage discharges from sanitary sewer systems into waters of the State aligns with Resolution 68-16. A sewage discharge from sanitary sewers to waters of the State is prohibited by this Order. Therefore, this Order does not allow degradation of waters of the State. In addition, this Order: (1) further expands the existing prohibition of sewage discharges to include waters of the State, in addition to waters of the United States as provided in previous Order 2006-0003-DWQ, and (2) enhances the ability for Water Board enforcement of violations of the established prohibitions.

3.3.2. State Water Board Sources of Drinking Water Policy

On May 19,1988, the State Water Board adopted Resolution 88-63 (amended on February 1, 2006), titled Sources of Drinking Water, establishing state policy that all waters of the State, with certain exceptions, are suitable or potentially suitable for municipal or domestic supply.

3.3.3. State Water Board Cost of Compliance Resolution

On September 24, 2013, the State Water Board adopted Resolution 2013-0029, titled Directing Actions in Response to Efforts by Stakeholders on Reducing Costs of

Compliance While Maintaining Water Quality Protection. Through this resolution, the State Water Board committed to continued stakeholder engagement in identifying and implementing measures to reduce costs of compliance with regulatory orders while maintaining water quality protection and improving regulatory program outcomes.

3.3.4. State Water Board Human Right to Water Resolution

On February 16, 2016, the State Water Board adopted Resolution 2016-0010, titled Adopting the Human Right to Water as a Core Value and Directing its Implementation in Water Board Programs and Activities, addressing the human right to water as a core value and directing Water Board programs to implement requirements to support safe drinking water for all Californians.

On November 16, 2021, the State Water Board adopted Resolution 2021-0050 titled Condemning Racism, Xenophobia, Bigotry, and Racial Injustice, and Strengthening Commitment to Racial Equity, Diversity, Inclusion, Access, and Anti-racism. Among other actions, through Resolution 2021-0050, the State Water Board, in summary as corresponding to this General Order, reaffirms its commitment to its Human Right to Water resolution, upholding that every human being in California deserves safe, clean, affordable, and accessible water for human consumption, cooking, and sanitation purposes. Resolution 2021-0050 provides the State Water Board commitment to:

- Protect public health and beneficial uses of waterbodies in all communities, including communities disproportionately burdened by wastes discharge of waste to land and surface water;
- Restore impaired surface waterbodies and degraded aquifers; and
- Promote multi-benefit water quality projects.

Through Resolution 2021-0050, the State Water Board also commits to expanding implementation of its Climate Change Resolution to address the disproportionate effects of extreme hydrologic conditions and sea-level rise on Black, Indigenous, and people of color communities, prioritizing:

- The right to safe, clean, affordable, and accessible drinking water and sanitation;
- Sustainable management and protection of local groundwater resources;
- Healthy watersheds; and
- Access to surface waterbodies that support subsistence fishing.

On June 7, 2022, the State Water Board adopted a Resolution, titled Authorizing the Executive Director or Designee to Enter into One or More Multi-Year Contracts Up to a Combined Sum of $4,000,000 for a Statewide Wastewater Needs Assessment, supporting the equitable access to sanitation for all Californians and implementation of Resolutions 2016-0010 and 2021-0050.

This General Order supports the State Water Board priority in collecting a comprehensive set of data for California's wastewater systems, including sanitary sewer systems. Data reported per the requirements of this Order will be used with data from other Water Boards' programs, to further develop criteria and create a statewide risk

framework to prioritize critical funding and infrastructure investments for California's most vulnerable populations, including disadvantaged or severely disadvantaged communities with inadequate or failing sanitation systems and threatened access to healthy drinking water supplies.

3.3.5. State Water Board Open Data Resolution

On July 10, 2018, the State Water Board adopted Resolution 2018-0032, titled Adopting Principles of Open Data as a Core Value and Directing Programs and Activities to Implement Strategic Actions to Improve Data Accessibility and Associated Innovation, directing regulatory programs to assure all monitoring and reporting requirements support the State Water Boards' Open Data Initiative.

3.3.6. State Water Board Response to Climate Change

On March 7, 2017, the State Water Board adopted Resolution 2017-0012, titled Comprehensive Response to Climate Change, requiring a proactive response to climate change in all California Water Board actions, with the intent to embed climate change consideration into all programs and activities.

3.4. California Environmental Quality Act

The adoption of this Order is an action to reissue general waste discharge requirements that is exempt from the California Environmental Quality Act (Public Resources Code section 21000 et seq.) because it is an action taken by a regulatory agency to assure the protection of the environment and the regulatory process involves procedures for protection of the environment (Cal. Code Regs., Title 14, section 15308). In addition, the action to adopt this Order is exempt from CEQA pursuant to Cal. Code Regs., Title 14, section 15301, to the extent that it applies to existing sanitary sewer collection systems that constitute "existing facilities" as that term is used in sections 15301 and 15302, to the extent that it results in the repair or replacement of existing systems involving negligible or no expansion of capacity.

3.5. State Water Board Funding Assistance for Compliance with Water Board Water Quality Orders

The State Water Board, Division of Financial Assistance administers the implementation of the State Water Board financial assistance programs, per Board-adopted funding policies. Among other funding areas, the Division administers loan and grant funding for the planning and construction of wastewater and water recycling facilities per funding program-specific policies and guidelines. Applicants may apply for Clean Water State Revolving Fund low-interest loan, Small Community Wastewater grant funding assistance, and other funding available at the time of application, for some of the costs associated with complying with this General Order.

Funding applicants may obtain further information regarding current funding opportunities, and Division of Financial Assistance staff contact information at the following website: Financial Assistance Funding - Grants and Loans | California State Water Resources Control Board.
(https://www.waterboards.ca.gov/water_issues/programs/grants_loans/)

Section 13477.6 of the Water Code authorizes the Small Community Grant Fund. The Small Community Grant Fund allows the State Water Board to provide grant funding assistance to small, disadvantaged communities and small severely disadvantaged communities that may not otherwise be able to afford a loan or similar financing for projects to comply with requirements of this General Order. The State Water Board also considers loan forgiveness on a disadvantaged community-specific basis.

For disadvantaged communities' wastewater needs, the State Water Board places priority on the funding of projects that address:

- Public health;
- Violations of waste discharge requirements and National Pollutant Discharge Elimination System (NPDES) permits;
- Providing sewer system service to existing septic tank owners; and
- High priority public health and water quality concerns identified by a Regional Water Board.

3.6. Notification to Interested Parties

On January 31, 2022, the State Water Board notified interested parties and persons of its intent to reissue Sanitary Sewer Systems General Order 2006-0003-DWQ by issuing a draft General Order for a 60-day public comment period. State Water Board staff conducted extensive stakeholder outreach and encouraged public participation in the adoption process for this General Order. On March 15, 2022, the State Water Board held a public meeting to hear and consider oral public comments. The State Water Board considered all public comments prior to adopting this General Order.

THEREFORE, IT IS HEREBY ORDERED, that pursuant to Water Code sections 13263, 13267, and 13383 this General Order supersedes Order 2006-0003-DWQ, Order WQ 2013-0058-EXEC, and any amendments made to these Orders thereafter, except for enforcement purposes and to meet the provisions contained in Division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, the Enrollee shall comply with the requirements in this Order.

4. PROHIBITIONS

4.1 Discharge of Sewage from a Sanitary Sewer System

Any discharge from a sanitary sewer system that has the potential to discharge to surface waters of the State is prohibited unless it is promptly cleaned up and reported as required in this General Order.

4.2. Discharge of Sewage to Waters of the State

Any discharge from a sanitary sewer system, discharged directly or indirectly through a drainage conveyance system or other route, to waters of the State is prohibited.

4.3. Discharge of Sewage Creating a Nuisance

Any discharge from a sanitary sewer system that creates a nuisance or condition of pollution as defined in Water Code section 13050(m) is prohibited.

5. SPECIFICATIONS

5.1. Designation of a Legally Responsible Official

The Enrollee shall designate a Legally Responsible Official that has authority to ensure the enrolled sanitary sewer system(s) complies with this Order, and is authorized to serve as a duly authorized representative. The Legally Responsible Official must have responsibility over management of the Enrollee's 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 ensure long-term environmental compliance. The Legally Responsible Official must have or have direct authority over individuals that:

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

For example, a sewer system superintendent or manager, an operations manager, a public utilities manager or director, or a district engineer may be designated as a Legally Responsible Official.

The Legally Responsible Official shall complete the electronic CIWQS "User Registration" form (https://ciwqs.waterboards.ca.gov/ciwqs/newUser.jsp). A Legally Responsible Official that represents multiple enrolled systems shall complete the electronic CIWQS "User Registration" form for each system.

The Enrollee shall submit any change to its Legally Responsible Official, and/or change in 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 as provided in Attachment F (Regional Water Quality Control Board Contact Information) of this General Order.

5.2. Sewer System Management Plan Development and Implementation

To facilitate adequate local funding and management of its sanitary sewer system(s), the Enrollee shall develop and implement an updated Sewer System Management Plan. The scale and complexity of the Sewer System Management Plan, and specific elements of the Plan, must match the size, scale and complexity of the Enrollee's sanitary sewer system(s). The Sewer System Management Plan must address, at minimum, the required Plan elements in Attachment D (Sewer System Management Plan – Required Elements) of this General Order. To be effective, the Sewer System Management Plan must include procedures for the management, operation, and maintenance of the sanitary sewer system(s). The procedures must: (1) incorporate the

prioritization of system repairs and maintenance to proactively prevent spills, and (2) address the implementation of current standard industry practices through available equipment, technologies, and strategies.

For an existing Enrollee under Order 2006-0003-DWQ that has certified its Continuation of Existing Regulatory Coverage, per section 2.1 (Requirements for Continuation of Existing Regulatory Coverage) of this General Order:

Within six (6) months of the Adoption Date of this General Order:

- The Legally Responsible Official shall upload the Enrollee's existing Sewer System Management Plan to the online CIWQS Sanitary Sewer System Database.

For a new Enrollee:

Within twelve (12) months of the Application for Enrollment approval date:

- The governing entity of the new Enrollee shall approve its Sewer System Management Plan; and
- The Legally Responsible Official shall certify and upload its Sewer System Management Plan to the online CIWQS Sanitary Sewer System Database.

5.3. Certification of Sewer System Management Plan and Plan Updates

The Legally Responsible Official shall certify and upload its Sewer System Management Plan and all subsequent updates to the online CIWQS Sanitary Sewer System Database.

5.4. Sewer System Management Plan Audits

The Enrollee shall conduct an internal audit of its Sewer System Management Plan, and implementation of its Plan, at a minimum frequency of once every three years. The audit must be conducted for the period after the end of the Enrollee's last required audit period. **Within six months after the end of the required 3-year audit period**, the Legally Responsible Official shall submit an audit report into the online CIWQS Sanitary Sewer System Database per the requirements in section 3.10 (Sewer System Management Plan Audit Reporting Requirements) of Attachment E1 of this General Order.

Audit reports submitted to the CIWQS Sanitary Sewer System Database will be viewable only to Water Boards staff.

The internal audit shall be appropriately scaled to the size of the system(s) and the number of spills. The Enrollee's sewer system operators must be involved in completing the audit. At minimum, the audit must:

- Evaluate the implementation and effectiveness of the Enrollee's Sewer System Management Plan in preventing spills;
- Evaluate the Enrollee's compliance with this General Order;
- Identify Sewer System Management Plan deficiencies in addressing ongoing spills and discharges to waters of the State; and

- Identify necessary modifications to the Sewer System Management Plan to correct deficiencies.

The Enrollee shall submit a complete audit report that includes:

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

A new Enrollee of this General Order (that did not have a sanitary sewer system enrolled in the previous State Water Board Order 2006-0003-DWQ) shall conduct its first internal Sewer System Management Plan audit for the time period between the date of submittal of its certified Sewer System Management Plan and the third subsequent December 31st date. The audit report must be submitted into the online CIWQS Sanitary Sewer System Database **by July 1 of the following calendar year**.

See the following tables for clarification:

Initial Audit Period and Audit Due Date for New Enrollees

	Audit Period	Audit Due Date
New Enrollee	Certified Sewer System Management Plan Submittal Date through the third subsequent December 31st date	July 1st date after audit period
Example	*Certified Sewer System Management Plan Submittal Date of August 2, 2025* *Audit Period of August 2, 2025 through December 31, 2027*	*July 1, 2028*

Initial Audit Period for Transition from 2-Year Audit Required in Previous Order 2006-0003-DWQ to 3-Year Audit Required in this General Order

	Audit Period	Audit Due Date
An Enrollee previously regulated by Order 2006-003-DWQ	A 3-year period starting from the end of last required 2-year Audit Period	Within six months after end of 3-year Audit Period
Example	*Last required Audit Period start date of August 2, 2021;* *Audit Period of August 2, 2021 through August 1, 2024*	*February 1, 2025*

Three-Year Ongoing Audit Period

	Audit Period	Audit Due Date
Each Enrollee	A 3-year period starting from the end of last required Audit Period	Within six months after end of 3-year Audit Period

5.5. Six-Year Sewer System Management Plan Update

At a minimum, the Enrollee shall update its Sewer System Management Plan every six (6) years after the date of its last Plan Update due date. (For an Enrollee previously regulated by Order 2006-0003-DWQ, the six-year period shall commence on the due date identified in section 3.11 of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of this Order. The Updated Sewer System Management Plan must include:

- Elements required in Attachment D (Sewer System Management Plan – Required Elements) of this Order;
- Summary of revisions included in the Plan update based on internal audit findings; and
- Other sewer system management-related changes.

The Enrollee's governing entity shall approve the updated Plan. The Legally Responsible Official shall upload and certify the approved updated Plan in the online CIWQS Sanitary Sewer System Database in accordance with section 3.11 (Sewer System Management Plan Reporting Requirements) of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of this General Order. During the time period in between Plan updates, the Enrollee shall continuously document changes to its Sewer System Management Plan in a change log attached to the Plan.

5.6. System Resilience

The Enrollee shall include and implement system-specific procedures in its Sewer System Management Plan to proactively prioritize: (1) operation and maintenance, (2) condition assessments, and (3) repair and rehabilitation, to address ongoing system resilience, as specified in Attachment D (Sewer System Management Plan – Required Elements) of this General Order.

5.7. Allocation of Resources

The Enrollee shall:

- Establish and maintain a means to manage all necessary revenues and expenditures related to the sanitary sewer system; and
- Allocate the necessary resources to its sewer system management program for:
  - Compliance with this General Order,
  - Full implementation of its updated Sewer System Management Plan,
  - System operation, maintenance, and repair, and
  - Spill responses.

5.8. Designation of Data Submitters

The Legally Responsible Official may designate one or more individuals as a Data Submitter for reporting of spill data. The Legally Responsible Official shall authorize the designation of Data Submitter(s) through the online CIWQS database (https://ciwqs.waterboards.ca.gov) prior to the individuals establishing a CIWQS user account (https://ciwqs.waterboards.ca.gov/ciwqs/newUser.jsp) and entering spill data into the online CIWQS Sanitary Sewer System Database.

The Legally Responsible Official shall submit any change 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 as provided in Attachment F (Regional Water Quality Control Board Contact Information) of this General Order.

5.9. Reporting Certification

The Legally Responsible Official shall electronically certify, on the Enrollee's behalf, all applications, reports, the Sewer System Management Plan(s) and corresponding updates, and other information submitted electronically into the online CIWQS Sanitary Sewer System Database, as follows:

"I certify under penalty of perjury under the laws of the State of California that the electronically submitted information was prepared under my direction or supervision. Based on my inquiry of the person(s) directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete, and complies with the Statewide Sanitary Sewer Systems General Order. I am aware that there are significant penalties for submitting false information."

Hardcopy submittals to the State Water Board must be accompanied by the above certification statement.

5.10. System Capacity

The Enrollee shall maintain the system capacity necessary to convey: (1) base flows during dry weather conditions, and (2) wet weather peak flows consistent with designated local historic storms. Design storms must take into account system-specific stormwater contributions via inflow and infiltration, and location-specific depth of groundwater and storm frequencies. The Enrollee shall implement capital improvements to provide adequate hydraulic capacity to:

- Meet or exceed the design criteria as defined in the Enrollee's System Evaluation and Capacity Assurance element of its Sewer System Management Plan; and
- Prevent system capacity-related spills, and adverse impacts to the treatment efficiency of downstream wastewater treatment facilities.

5.11. System Performance Analysis

The Enrollee shall include a running 10-year system performance analysis in its Annual Report. The analysis must include two CIWQS-generated graphs presenting the following information:

Graph 1 – Total Spill Volume per Year:

X axis: A 10-year period which includes the current calendar year and the nine previous calendar years;

Y axis: The total spill volume, per Spill Category, for each calendar year.

Graph 2 – Total Number of Spills per Year:

X axis: A 10-year period which includes the current calendar year and the nine previous calendar years;

Y axis: The total number of spills, per Spill Category, for each calendar year.

The current calendar year is the calendar year covered in the Annual Report.

The Enrollee shall generate the graphs in CIWQS, using the existing data in the online CIWQS Sanitary Sewer System Database at the following graph generation link: (https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportSSOServlet?reportAction=criteria&reportId=sso_operation_report).

5.12. Spill Emergency Response Plan and Remedial Actions

For Existing Enrollees (with regulatory coverage under Order 2006-0003-DWQ):

Within six (6) months of the Adoption Date of this General Order, the Enrollee shall update and implement its Spill Emergency Response Plan, per Attachment D, section 6 (Spill Emergency Response Plan) of this General Order.

For New Enrollees:

Within six (6) months of the Application for Enrollment approval date, the Enrollee shall develop and implement a Spill Emergency Response Plan, per Attachment D, section 6 (Spill Emergency Response Plan) of this General Order.

The Enrollee shall certify, in its Annual Report, that its Spill Emergency Response Plan is up to date.

The Spill Emergency Response Plan shall include measures to protect public health and the environment. The Enrollee shall respond to spills from its system(s) in a timely manner that minimizes water quality impacts and nuisance by:

- Immediately stopping the spill and preventing/minimizing a discharge to waters of the State;
- Intercepting sewage flows to prevent/minimize spill volume discharged into waters of the State;
- Thoroughly recovering, cleaning up and disposing of sewage and wash down water; and
- Cleaning publicly accessible areas while preventing toxic discharges to waters of the State.

5.13. Notification, Monitoring, Reporting and Recordkeeping Requirements

The Enrollee shall comply with notification, monitoring, reporting, and recordkeeping requirements in Attachment E1 of this General Order.

5.13.1. Spill Categories

Individual spill notification, monitoring and reporting must be in accordance with the following spill categories:

- **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 this General Order that results in a discharge to:

  - A surface water, including a surface water body that contains no flow or volume of water; or
  - 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 this 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 this 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 this 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 this 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.

5.13.2. Annual Report

The Enrollee shall submit an Annual Report (previously termed as Collection System Questionnaire in Order 2006-0003-DWQ) as specified in section 3.9 (Annual Report) of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of this General Order.

For new Enrollees: Within 30 days of obtaining a CIWQS account, a new Enrollee shall submit its initial Annual Report, as specified in section 3.9 (Annual Report) of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of this General Order.

5.14. Electronic Sanitary Sewer System Service Area Boundary Map

For continuing enrollees, starting on July 1, 2025, and no later than December 31, 2025:

For new enrollees – no earlier than July 1, 2025, or within 12 months of the Application for Enrollment approval date, whichever date is later:

The Legally Responsible Official shall submit, to the State Water Board, geospatial data detailing the locations of the Enrollee's sanitary sewer system service area boundary, per the required content and specifications in section 3.8 (Electronic Sanitary Sewer System Service Area Boundary Map) of Attachment E1 of this General Order, for each system identified by a WDID number.

An Enrollee of a disadvantaged community that may need assistance developing an electronic map to comply with this requirement, may contact State Water Board staff for assistance at SanitarySewer@waterboards.ca.gov.

5.15. Voluntary Reporting of Spills from Privately-Owned Sewer Laterals and/or Private Sanitary Sewer Systems

Within 24 hours of becoming aware of a spill (as described below) from a private sewer lateral or private sanitary sewer system that is not owned/operated by the Enrollee, the Enrollee is encouraged to report the following observations to the online CIWQS Sanitary Sewer System Database at the following link: https://ciwqs.waterboards.ca.gov:

- A spill equal or greater than 1,000 gallons that discharges (or has a potential to discharge) to a water of the State, or a drainage conveyance system that discharges to waters of the State; **or**
- Any volume of sewage that discharges (or has a potential to discharge) to surface waters.

In the CIWQS module, the Enrollee is encouraged to identify:

- Time of observation;
- Description of general spill location (for example, street name and cross street names);
- Estimated volume of spill;
- If known, general description of spill destination (for example, flowing into drainage channel, flowing directly into a creek, etc.); and
- If known, name of private system owner/operator.

The CIWQS database will make the name and contact information of the entity voluntarily reporting a private spill, accessible to State and Regional Water Board staff only. The CIWQS database will only make information regarding the actual spill, accessible to the public.

5.16. Voluntary Notification of Spills from Privately-Owned Laterals and/or Systems to the California Office of Emergency Services

Upon observing or acquiring knowledge of any of the following from a private sewer lateral or private sanitary sewer system that is not owned/operated by the Enrollee, the Enrollee is encouraged to notify the California Office of Emergency Services (as provided by Health and Safety Code section 5410 et. seq. and Water Code section 13271), or inform the responsible party that State law requires such notification to the Office of Emergency Services by any person that causes or allows a sewage discharge to waters of the State:

- A spill equal to 1,000 gallons or more that discharges (or has a potential to discharge) to waters of the State, or a drainage conveyance system that discharges to waters of the State; or
- A spill of any volume to surface waters.

5.17. Unintended Failure to Report

If an Enrollee becomes aware that they unintentionally failed to submit relevant facts in any report required in this General Order, the Enrollee shall promptly notify Regional Water Board and State Water Board staff. Regional Water Board contact information is included in Attachment F of this Order. State Water Board staff shall be contacted by email at SanitarySewer@waterboards.ca.gov for assistance in formally amending the corresponding report(s) in the online CIWQS Sanitary Sewer System Database.

5.18. Duty to Report to Water Boards

In accordance with Water Code section 13267 and/or section 13383, upon request by the State Water Board Executive Director (or designee) or a Regional Water Board Executive Officer (or designee), the Enrollee shall provide the requested information which the State or Regional Water Board deems necessary to determine compliance with this General Order.

5.19. Operation and Maintenance

To prevent discharges to the environment, the Enrollee shall maintain in good working order, and operate as designed, any facility or treatment and control system designed to contain sewage and convey it to a treatment plant.

6. PROVISIONS

6.1. Enforcement Provisions

The following enforcement provisions are based on existing federal and state regulations, laws and policies, including the federal Clean Water Act, the state Water Code and the State Water Board Enforcement Policy.

6.1.1. Enforceability of Clean Water Act and Water Code Violations

Noncompliance with requirements of this General Order or discharging sewage without enrolling in this General Order constitutes a violation of the Water Code and a potential

violation of the Clean Water Act and is grounds for an enforcement action by the State Water Board or the applicable Regional Water Board. Failure to comply with the notification, monitoring, inspection, entry, reporting, and recordkeeping requirements may subject the Enrollee to administrative civil liabilities of up to $10,000 a day per violation pursuant to Water Code section 13385; up to $1,000 a day per violation pursuant to Water Code section 13268; or referral to the Attorney General for judicial civil enforcement. Discharging waste not in compliance with the requirements of this General Order or the Clean Water Act may subject the Enrollee to administrative civil liabilities up to $10,000 a day per violation and additional liability up to $10 per gallon of discharge not cleaned up after the first 1,000 gallons of discharge; up to $5,000 a day per violation pursuant to Water Code section 13350 or up to $20 per gallon of waste discharged; or referral to the Attorney General for judicial civil enforcement.

6.1.2. Monetary Penalties

The Water Code provides the State and Regional Water Boards the authority to pursue formal enforcement actions, including imposing administrative liability and civil monetary penalties, for non-compliance with the requirements of this General Order and violations of the Clean Water Act.

6.1.3. Falsifying or Failure to Report

The Water Code provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this General Order, or falsifying any information provided in the technical or monitoring reports is subject to administrative liability and civil monetary penalties. Any person who knowingly fails or refuses to furnish technical or monitoring program reports or falsifies any information provided in reports required by this General Order is subject to criminal penalties.

6.1.4. Severability of General Order

The provisions of this General Order are severable; if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this Order shall not be affected thereby.

6.1.5. Indirect Discharges

In the event that a spill enters into a drainage conveyance system, the Enrollee shall take all feasible steps to prevent discharge of sewage into waters of the State by blocking or redirecting the flow in the drainage conveyance system, removing the sewage from the drainage conveyance system, and cleaning the system in a manner that does not inadvertently impact beneficial uses of the receiving water body.

6.1.6. Water Boards' Considerations for Discretionary Enforcement

Consistent with the State Water Board Enforcement Policy, when considering Water Code section 13327 factors, the State Water Board or a Regional Water Board may consider the Enrollee's efforts to contain, control, clean up, and mitigate spills. In assessing the factors, the State Water Board or the applicable Regional Water Board will consider:

- The Enrollee's compliance with this General Order with a focus on compliance with reporting requirements;
- The Enrollee's provision of adequate funding to implement the requirements of this General Order;
- The Enrollee's compliance with providing a complete and updated Sewer System Management Plan;
- The Enrollee's compliance with implementing its Sewer System Management Plan;
- The overall effectiveness of the Enrollee's Sewer System Management Plan with respect to:
    - System management, operation, and maintenance,
    - Adequate treatment facilities, sanitary sewer system facilities, and/or components with an appropriate design capacity, to reasonably prevent spills (e.g. adequately enlarging treatment or collection facilities to accommodate growth, infiltration and inflow, etc.),
    - Preventive maintenance (including cleaning, root grinding, and fats, oils, and grease control) and source control measures,
    - Implementation of backup equipment,
    - Inflow and infiltration prevention and control,
    - Appropriate sanitary sewer system capacity to prevent spills, and
    - The Enrollee's responsiveness to stop and mitigate the impact of the discharge;
- The Enrollee's compliance with identifying the cause of the spill;
- The Enrollee's use of available information and observations to accurately estimate the spill volume and identify the affected or potentially affected receiving waters;
- The Enrollee's thoroughness of cleaning up sewage in drainage conveyance systems after the spill(s);
- The Enrollee's use of water quality and biological monitoring and assessment to determine the short-term and long-term impacts to beneficial uses and the environment;
- The Enrollee's follow up actions to improve system performance;
- The Enrollee's implementation of feasible alternatives to prevent spills, such as:
    - Use of temporary storage or waste retention,
    - Reduction of system inflow and infiltration,
    - Collection and hauling of waste to a treatment facility,
    - Prevention of and/ or containment of spills due to a design storm event identified in the Enrollee's Sewer System Management Plan,

- Implementation of available equipment, technologies, strategies, and recommended industry practices for maintaining and managing sewer systems to prevent spills, and contain and eliminate discharges to waters of the State; and

- The spill duration and factors beyond the reasonable control of the Enrollee causing the event.

6.1.7. Enforcement Discretion Based on Reporting Compliance

Consistent with the State Water Board Enforcement Policy, the State Water Board or a Regional Water Board may consider the Enrollee's efforts to comply with spill reporting requirements when determining compliance with Water Code section 13267 and section 13383. When assessing Water Code section 13227 factors, the State Water Board or the applicable Regional Water Board will consider:

- The Enrollee's diligence to comply with all reporting requirements in this General Order;
- The use of best available information for the Enrollee's reporting of spill start date and start time in which the release of sewage from the sanitary sewer system initiated;
- The Enrollee's reporting of spill end date, and end time to be the date and time in which the release of sewage from the sanitary sewer system was stopped;
- The Enrollee's diligence to accurately estimate and report spill volumes;
- The Enrollee's subsequent verification and/or updates to initial Draft Spill Reports in accordance with this General Order; and
- The Enrollee's timely certification of required spill reports.

Consistent with Water Code section 13267 and section 13383, the State Water Board or a Regional Water Board may require an Enrollee to report the results of a condition assessment of a specified portion of the Enrollee's sanitary sewer system.

6.2. Other Regional Water Board Orders

It is the intent of the State Water Board that sanitary sewer systems be regulated in a manner consistent with federal and state regulations. This Order will not be interpreted or applied:

- In a manner inconsistent with the federal Clean Water Act;
- To authorize a spill or discharge that is illegal under either the Clean Water Act, the Water Code, and/or an applicable Basin Plan prohibition or water quality standard;
- To prohibit a Regional Water Board from issuing an individual National Pollutant Discharge Elimination System (NPDES) permit or individual waste discharge requirements superseding an Enrollee's regulatory coverage under this General Order for a sanitary sewer system authorized under the Clean Water Act or Water Code;

- To supersede any more specific or more stringent waste discharge requirements or enforcement orders issued by a Regional Water Board; or
- To supersede any more specific or more stringent state or federal requirements in existing regulation, an administrative/judicial order, or Consent Decree.

6.3. Sewer System Management Plan Availability

The Enrollee's updated Sewer System Management Plan must be maintained for public inspection at the Enrollee's offices and facilities and must be available to the public through CIWQS and/or on the Enrollee's website, in accordance with section 3.8 (Sewer System Management Plan Reporting Requirements) of Attachment E1 (Notification, Monitoring, Reporting and Recordkeeping Requirements) of this General Order.

6.4. Entry and Inspection

6.4.1. Entry and Availability of Information

The Enrollee shall allow State and Regional Water Board staff, upon presentation of credentials and other documents as may be required by law, to:

- Enter upon the Enrollee's premises where a regulated facility or activity is located or conducted, or where records are kept under the requirements of this General Order;
- Have access to and reproduce any records required to be maintained by this General Order;
- Inspect any facility and/or equipment (including monitoring and control equipment), practices, or operations required in this General Order; and
- Sample or monitor substances or parameters for assuring compliance with this General Order, or as otherwise authorized by the Water Code.

6.4.2. Pre-Inspection Questionnaire

The Enrollee shall provide pre-inspection information to State and Regional Water Board staff through the completion of a Pre-Inspection Questionnaire provided by Water Board staff.

ATTACHMENT A - DEFINITIONS

Annual Report

An Annual Report (previously termed as Collection System Questionnaire in Order 2006-0003-DWQ) is a mandatory report in which the Enrollee provides a calendar-year update of its efforts to prevent spills.

Basin Plan

A Basin Plan is a water quality control plan specific to a Regional Water Quality Control Board (Regional Water Board), that serves as regulations to: (1) define and designate beneficial uses of surface and groundwaters, (2) establish water quality objectives for protection of beneficial uses, and (3) provide implementation measures.

Beneficial Uses

The term “Beneficial Uses” is a Water Code term, defined as the uses of the waters of the State that may be protected against water quality degradation. Examples of beneficial uses include but are not limited to, municipal, domestic, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

California Integrated Water Quality System (CIWQS)

CIWQS is the statewide database that provides for mandatory electronic reporting as required in State and Regional Water Board-issued waste discharge requirements.

Data Submitter

A Data Submitter is an individual designated and authorized by the Enrollee’s Legally Responsible Official to enter spill data into the online CIWQS Sanitary Sewer System Database. A Data Submitter does not have the authority of a Legally Responsible Official to certify reporting entered into the online CIWQS Sanitary Sewer System Database.

Disadvantaged Community

A disadvantaged community is a community with a median household income of less than eighty percent (80%) of the statewide annual median household income.

For the purpose of this General Order, there is no differentiation between a small and large disadvantaged community.

Drainage Conveyance System

A drainage conveyance system is a publicly- or privately-owned separate storm sewer system, including but not limited to drainage canals, channels, pipelines, pump stations, detention basins, infiltration basins/facilities, or other facilities constructed to transport stormwater and non-stormwater flows.

Enrollee

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

- A state agency, municipality, special district, or other public entity that owns and/or operates one or more sanitary sewer systems:
  - greater than one (1) mile in length (each individual sanitary sewer system);
  - one mile or less in length where the State Water Resources Control Board or a Regional Water Quality Control Board requires regulatory coverage under this Order, or
- A federal agency, private company, or other non-governmental entity that owns and/or operates a sanitary sewer system of any size where the State Water Resources Control Board or a Regional Water Quality Control Board requires regulatory coverage under this Order in response to a history of spills, proximity to surface water, or other factors supporting regulatory coverage.

Environmentally Sensitive Area

An environmentally sensitive area is a designated agricultural and/or wildlife area identified to need special natural landscape protection due to its wildlife or historical value.

Exfiltration

Exfiltration is the underground exiting of sewage from a sanitary sewer system through cracks, offset or separated joints, or failed infrastructure due to corrosion or other factors.

Flood Control Channel

A flood control channel is a channel used to convey stormwater and non-stormwater flows through and from areas for flood management purposes.

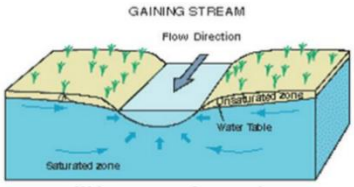
Governing Entity

A governing entity includes but is not limited to the following:

- A publicly elected governing board, council, or commission of a municipal agency;
- A Department or Division director of a federal or state agency that is not governed by a board;
- A governing board or commission of an organization or association; and
- A private system owner/manager that is not governed by a board.

Hydrologically Connected

Two waterbodies are hydrologically connected when one waterbody flows, or has the potential to flow, into the other waterbody. For the purpose of this General Order, groundwater is hydrologically connected to a surface water when the groundwater feeds into the surface water. (The surface waterbody in this example is termed a gaining stream as it gains flow from surrounding groundwater.)



Lateral (including Lower and Upper Lateral)

A lateral is an underground segment of smaller diameter pipe that transports sewage from a customer's building or property (residential, commercial, or industrial) to the Enrollee's main sewer line in a street or easement. Upper and lower lateral boundary definitions are subject to local jurisdictional codes and ordinances, or private system ownership.

A lower lateral is the portion of the lateral located between the sanitary sewer system main, and either the property line, sewer clean out, curb line, established utility easement boundary, or other jurisdictional locations.

An upper lateral is the portion of the lateral from the property line, sewer clean out, curb line, established utility easement boundary, or other jurisdictional locations, to the building or property.

Legally Responsible Official

A Legally Responsible Official is an official representative, designated by the Enrollee, with authority to sign and certify submitted information and documents required by this General Order.

Nuisance

For the purpose of this General Order, a nuisance, as defined in Water Code section 13050(m), is anything that meets all of the following requirements:

- Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property;
- Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; and
- Occurs during, or as a result of, the treatment or disposal of wastes.

Private Sewer Lateral

A private sewer lateral is the privately-owned lateral that transports sewage from private property(ies) into a sanitary sewer system.

Private Sanitary Sewer System

A private sanitary sewer system is a sanitary sewer system of any size that is owned and/or operated by a private individual, company, corporation, or organization. A private sanitary sewer system may or may not connect into a publicly owned sanitary sewer system.

Potential to Discharge, Potential Discharge

Potential to Discharge, or Potential Discharge, means any exiting of sewage from a sanitary sewer system which can reasonably be expected to discharge into a water of the State based on the size of the sewage spill, proximity to a drainage conveyance system, and the nature of the surrounding environment.

Receiving Water

A receiving water is a water of the State that receives a discharge of waste.

Resilience

Resilience is the ability to recover from or adjust to adversity or change, and grow from disruptions. Resilience can be built through planning, preparing for, mitigating, and adapting to changing conditions.

Sanitary Sewer System

A sanitary sewer system is a system that is designed to convey sewage, including but not limited to, pipes, manholes, pump stations, siphons, wet wells, diversion structures and/or other pertinent infrastructure, upstream of a wastewater treatment plant headworks, including:

- Laterals owned and/or operated by the Enrollee;
- Satellite sewer systems; and/or
- Temporary conveyance and storage facilities, including but not limited to temporary piping, vaults, construction trenches, wet wells, impoundments, tanks and diversion structures.

For purpose of this Order, sanitary sewer systems include only systems owned and/or operated by the Enrollee.

Satellite Sewer System

A satellite sewer system is a portion of a sanitary sewer system owned or operated by a different owner than the owner of the downstream wastewater treatment facility ultimately treating the sewage.

Sewer System Management Plan

A sewer system management plan is a living document an Enrollee develops and implements to effectively manage its sanitary sewer system(s) in accordance with this General Order.

Sewage

Sewage, and its associated wastewater, is untreated or partially treated domestic, municipal, commercial and/or industrial waste (including sewage sludge), and any mixture of these wastes with inflow or infiltration of stormwater or groundwater, conveyed in a sanitary sewer system.

Spill

A spill is a discharge of sewage from any portion of a sanitary sewer system due to a sanitary sewer system overflow, operational failure, and/or infrastructure failure. Exfiltration of sewage is not considered to be a spill under this General Order if the exfiltrated sewage remains in the subsurface and does not reach a surface water of the State.

Training

Training is in-house or external education and guidance needed that provides the knowledge, skills, and abilities to comply with this General Order.

Wash Down Water

Wash down water is water used to clean a spill area.

Waste

Waste, as defined in Water Code section 13050(d), includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

Waste Discharge Identification Number (WDID)

A waste discharge identification number (WDID) identifies each individual sanitary sewer system enrolled under this General Order. A WDID number is assigned to each enrolled system upon an Enrollee's approved regulatory coverage.

Waters of the State

Waters of the State are surface waters or groundwater within boundaries of the state as defined in Water Code section 13050(e), in which the State and Regional Water Boards have authority to protect beneficial uses. Waters of the State include, but are not limited to, groundwater aquifers, surface waters, saline waters, natural washes and pools, wetlands, sloughs, and estuaries, regardless of flow or whether water exists during dry conditions. Waters of the State include waters of the United States.

Waters of the United States

Waters of the United States are surface waters or waterbodies that are subject to federal jurisdiction in accordance with the Clean Water Act.

Water Quality Objective

A water quality objective is the limit or maximum amount of pollutant, waste constituent or characteristic, or parameter level established in statewide water quality control plans and Regional Water Boards' Basin Plans, for the reasonable protection of beneficial uses of surface waters and groundwater and the prevention of nuisance.

ATTACHMENT B – APPLICATION FOR ENROLLMENT

1. Enrollment Status: (Mark only one item)

☐ New Enrollee

☐ New Enrollee with previous regulatory coverage under Order 2006-0003-DWQ
(that failed to certify continuation of coverage in CIWQS per Order 2022-XXXX-DWQ)
Existing WDID Number: _____

2. Applicant Information:

Legally Responsible Official Submitting Application

First and Last Name: _____

Title: _____

Phone: _____

Email: _____

System Owner/Operator Name: _____

Mailing Address:_____

City, State, Zip:_____

County:_____

Sanitary Sewer System Name: _____

Regional Water Quality Control Board(s): _____

Signature and Date: _____

3. Applicant Type (Check one):

☐ City ☐ County ☐ State ☐ Federal ☐ Special District

☐ Government Combination ☐ Private ☐ Other Non-governmental Entity

4. Wastewater Treatment Plant Receiving Sanitary Sewer System Waste:

Wastewater Treatment Plant Permittee:_____

WDID No.: _____

5. Billing Information

Billing Address: _____

City, State, Zip: _____

Billing Contact Person and Title: _____

Phone and Email Address: _____

6. Application Fee:

The application fee, as required by Water Code section 13260, is based on the daily population served by the sanitary sewer system. See updated Fee Schedule. (https://www.waterboards.ca.gov/resources/fees/water_quality/)

Check one of the following and enter fee amount:

☐ Population Served < 50,000 – Total Fee submitted: $ _____

☐ Population Served ≥ 50,000 – Total Fee submitted: $ _____

Make the fee payment payable to the State Water Resources Control Board and mail the complete application package to:

State Water Resources Control Board, Accounting Office
P. O. Box 1888
Sacramento, CA 95812-1888

Attention: Statewide Sanitary Sewer System Program

7. Application Submittal Certification

I certify under penalty of perjury under the laws of the State of California that to the best of my knowledge and belief, the information in the submitted application package is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Print Name: _____

Title: _____

Signature: _____Date: _____

ATTACHMENT C - NOTICE OF TERMINATION

1. Enrollee Information

Enrollee Name: _____

WDID No:_____

Legally Responsible Official Requesting Termination of Coverage: _____

First and Last Name: _____

Title: _____

Phone: _____

Email: _____

Mailing Address: _____

City, State, Zip: _____

County: _____

Sanitary Sewer System Name(s) or Unique Identifier(s): _____

Regional Water Quality Control Board(s): _____

Signature and Date:_____

2. Basis of Termination

Explanation of termination, including subsequent regulatory coverage and subsequent owner/operator of enrolled sanitary sewer system, as applicable:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

3. Regulatory Coverage Termination Certification

I certify under penalty of perjury under the laws of the State of California that to the best of my knowledge: 1) the sanitary sewer system I officially represent is not required to be regulated under the Statewide Waste Discharge Requirements for Sanitary Sewer Systems Order 2022-XXXX-DWQ, and 2) the information submitted in this Notice of Termination is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment. Additionally, I understand that the submittal of this Notice of Termination does not release sanitary sewer system agencies from liability for any violations of the Clean Water Act.

Print Name: _____

Title: _____

Signature: _____Date: _____

For State Water Board Use Only

☐ Approved for Termination ☐ Denied and Returned to Enrollee

Deputy Director of Water Quality Signature: _____

Date: _____Notice of Termination Effective Date: _____

ATTACHMENT D – SEWER SYSTEM MANAGEMENT PLAN – REQUIRED ELEMENTS

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ATTACHMENT D – SEWER SYSTEM MANAGEMENT PLAN – REQUIRED ELEMENTS

A Sewer System Management Plan (Plan) is a living planning document that documents ongoing local sewer system management program activities, procedures, and decision-making – at the scale necessary to address the size and complexity of the subject sanitary sewer system(s). This Plan may incorporate other programs and other plans by reference, to address short-term and long-term system resilience through:

- Proactive planning and decision-making;
- Local government ordinances;
- Updated operations and maintenance activities and procedures;
- Implementation of capital improvements;
- Sufficient local budget to support staff resources, contractors, equipment, and training; and
- Updated training of staff and contractors.

The Enrollee's development, update, and implementation of a Sewer System Management Plan addressing the requirements of this Attachment is an enforceable component of this General Order. As specified in Provision 6.1 (Enforcement Provisions) of this General Order, consistent with the Water Code and the State Water Board Enforcement Policy, the State Water Board or a Regional Water Board may consider the Enrollee's efforts in implementing an effective Sewer System Management Plan to prevent, contain, control, and mitigate spills when considering Water Code section 13327 factors to determine necessary enforcement of this General Order.

This Attachment includes the following required elements that the Enrollee shall address in its Plan and subsequent updates. The Enrollee shall identify any requirement in this Attachment that is not applicable to the Enrollee's sewer system and shall explain in its Plan why the requirement is not applicable.

1. SEWER SYSTEM MANAGEMENT PLAN GOAL AND INTRODUCTION

The goal of the Sewer System Management Plan (Plan) 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 Plan must include a narrative Introduction section that discusses the following items:

1.1. Regulatory Context

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

1.2. Sewer System Management Plan Update Schedule

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

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:

- Location, including county(ies);
- 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; and
- Unique service boundary conditions and challenge(s).

Additionally, the Plan Introduction section must provide reference to the Enrollee's up-to-date map of its sanitary sewer system, as required in section 4.1 (Updated Map of Sanitary Sewer System) of this Attachment.

2. ORGANIZATION

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

- The name of the Legally Responsible Official as required in section 5.1 (Designation of a Legally Responsible Official) of this General Order;
- The position titles, telephone numbers, and email addresses for management, administrative, and maintenance positions responsible for implementing specific Sewer System Management Plan elements;
- Organizational lines of authority; and
- 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.)

3. LEGAL AUTHORITY

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 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, oils, 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; and
- Obtain easement accessibility agreements for locations requiring sewer system operations and maintenance, as applicable.

4. OPERATION AND MAINTENANCE PROGRAM

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

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 system service area boundaries.

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:

- 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.

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

4.4. Equipment Inventory

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

5. DESIGN AND PERFORMANCE PROVISIONS

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

5.1. 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 section 8 (System Evaluation, Capacity Assurance and Capital Improvements) of this Attachment, the procedures must include component-specific evaluation of the design criteria.

5.2. 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.

6. SPILL EMERGENCY RESPONSE PLAN

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 this 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 this General Order; and
- Annually, review and assess effectiveness of the Spill Emergency Response Plan, and update the Plan as needed.

7. SEWER PIPE BLOCKAGE CONTROL PROGRAM

The Sewer System Management Plan 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, oils, and grease ordinance;
- An identification of sanitary sewer system sections subject to fats, oils, and grease blockages and establishment of a cleaning schedule for each section; and
- Implementation of source control measures for all sources of fats, oils, and grease reaching the sanitary sewer system for each section identified above.

8. SYSTEM EVALUATION, CAPACITY ASSURANCE AND CAPITAL IMPROVEMENTS

The Plan must include procedures and activities for:

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

8.1 System Evaluation and Condition Assessment

The Plan must include procedures to:

- Evaluate the sanitary sewer system assets utilizing the best practices and technologies available;

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

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

The capacity assessment must consider:

- Data from existing system condition assessments, system inspections, system audits, spill history, and other available information;
- Capacity of flood-prone systems subject to increased infiltration and inflow, under normal local and regional storm conditions;

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

8.3. 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.

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;
- Internal and external project funding sources for each project; and
- Joint coordination between operation and maintenance staff, and engineering staff/consultants during planning, design, and construction of capital improvement projects; and Interagency coordination with other impacted utility agencies.

9. MONITORING, MEASUREMENT AND PROGRAM MODIFICATIONS

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

- Maintaining relevant information, including audit findings, to establish and prioritize appropriate Plan activities;
- Monitoring the implementation and measuring the effectiveness of each Plan 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; and
- Identifying and illustrating spill trends, including spill frequency, locations and estimated volumes.

10. INTERNAL AUDITS

The Plan 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 this General Order.

11. COMMUNICATION PROGRAM

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.

ATTACHMENT E1 – NOTIFICATION, MONITORING, REPORTING AND RECORDKEEPING REQUIREMENTS

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ATTACHMENT E1– NOTIFICATION, MONITORING, REPORTING AND RECORDKEEPING REQUIREMENTS

The Notification Requirements (section 1), Spill-specific Monitoring Requirements (section 2), Reporting Requirements (section 3) and Recordkeeping Requirements (section 4) in this Attachment are pursuant to Water Code section 13267 and section 13383, and are an enforceable component of this General Order. For the purpose of this General Order, the term:

- Notification means the notifying of appropriate parties of a spill event or other activity.
- Spill-specific Monitoring means the gathering of information and data for a specific spill event to be reported or kept as records.
- Reporting means the reporting of information and data into the online California Integrated Water Quality System (CIWQS) Sanitary Sewer System Database.
- Recordkeeping means the maintaining of information and data in an official records storage system.

Failure to comply with the notification, monitoring, reporting and recordkeeping requirements in this General Order may subject the Enrollee to civil liabilities of up to $10,000 a day per violation pursuant to Water Code section 13385; up to $1,000 a day per violation pursuant to Water Code section 13268; or referral to the Attorney General for judicial civil enforcement.

Water Code section 13193 et seq. requires the Regional Water Quality Control Boards (Regional Water Boards) and the State Water Resources Control Board (State Water Board) to collect sanitary sewer spill information for each spill event and make this information available to the public. Sanitary sewer spill information for each spill event includes but is not limited to: Enrollee contact information for each spill event, spill cause, estimated spill volume and factors used for estimation, location, date, time, duration, amount discharged to waters of the State, response and corrective action(s) taken.

1. NOTIFICATION REQUIREMENTS

1.1. Notification of Spills of 1,000 Gallons or Greater to the California Office of Emergency Services

Per Water Code section 13271, for a spill that discharges in or on any waters of the State, or discharges or is deposited where it is, or probably will be, discharged in or on any waters of the State, the Enrollee shall notify the California Office of Emergency Services and obtain a California Office of Emergency Services Control Number as soon as possible **but no later than two (2) hours** after:

- The Enrollee has knowledge of the spill; and
- Notification can be provided without substantially impeding cleanup or other emergency measures.

The notification requirements in this section apply to individual spills of 1,000 gallons or greater, from an Enrollee-owned and/or operated laterals, to a water of the State.

1.2. Spill Notification Information

The Enrollee shall provide the following spill information to the California Office of Emergency Services before receiving a Control Number, as applicable:

- Name and phone number of the person notifying the California Office of Emergency Services;
- Estimated spill volume (gallons);
- Estimated spill rate from the system (gallons per minute);
- Estimated discharge rate (gallons per minute) directly into waters of the State or indirectly into a drainage conveyance system;
- Spill incident description:
  - Brief narrative of the spill event, and
  - Spill incident location (address, city, and zip code) and closest cross streets and/or landmarks;
- Name and phone number of contact person on-scene;
- Date and time the Enrollee was informed of the spill event;
- Name of sanitary sewer system causing the spill;
- Spill cause or suspected cause (if known);
- Amount of spill contained;
- Name of receiving water body receiving or potentially receiving discharge; and
- Description of water body impact and/ or potential impact to beneficial uses.

1.3. Notification of Spill Report Updates

Following the initial notification to the California Office of Emergency Services and until such time that the Enrollee certifies the spill report in the online CIWQS Sanitary Sewer System Database, the Enrollee shall provide updates to the California Office of Emergency Services regarding substantial changes to:

- Estimated spill volume (increase or decrease in gallons initially estimated);
- Estimated discharge volume discharged directly into waters of the State or indirectly into a drainage conveyance system (increase or decrease in gallons initially estimated); and
- Additional impact(s) to the receiving water(s) and beneficial uses.

2. SPILL-SPECIFIC MONITORING REQUIREMENTS

2.1 Spill Location and Spread

The Enrollee shall visually assess the spill location(s) and spread using photography, global positioning system (GPS), and other best available tools. The Enrollee shall document the critical spill locations, including:

- Photography and GPS coordinates for:
  - The system location where spill originated.

    For multiple appearance points of a single spill event, the points closest to the spill origin.
- Photography for:
  - Drainage conveyance system entry locations,
  - The location(s) of discharge into surface waters, as applicable,
  - Extent of spill spread, and
  - The location(s) of clean up.

2.2 Spill Volume Estimation

To assess the approximate spill magnitude and spread, the Enrollee shall estimate the total spill volume using updated volume estimation techniques, calculations, and documentation for electronic reporting. The Enrollee shall update its notification and reporting of estimated spill volume (which includes spill volume recovered) as further information is gathered during and after a spill event.

2.3. Receiving Water Monitoring

2.3.1. Receiving Water Visual Observations

Through visual observations and use of best available spill volume-estimating techniques and field calculation techniques, the Enrollee shall gather and document the following information for spills discharging to surface waters:

- Estimated spill travel time to the receiving water;
- For spills entering a drainage conveyance system, estimated spill travel time from the point of entry into the drainage conveyance system to the point of discharge into the receiving water;
- Estimated spill volume entering the receiving water; and
- Photography of:
  - Waterbody bank erosion,
  - Floating matter,
  - Water surface sheen (potentially from oil and grease),

- Discoloration of receiving water, and
- Impact to the receiving water.

2.3.2. Receiving Water – Water Quality Sampling and Analysis

For sewage spills in which an estimated 50,000 gallons or greater are discharged into a surface water, the Enrollee shall conduct the following water quality sampling no later than **18 hours** after the Enrollee's knowledge of a potential discharge to a surface water:

- Collect one water sample, each day of the duration of the spill, at:
  - The DCS-001 location as described in section 2.3.4 (Receiving Water Sampling Locations) of this Attachment, if sewage discharges to a surface water via a drainage conveyance system; and/or
  - Each of the three receiving water sampling locations in section 2.3.4 (Receiving Water Sampling Locations) of this Attachment;

    If the receiving water has no flow during the duration of the spill, the Enrollee must report "No Sampling Due To No Flow" for its receiving water sampling locations.

The Enrollee shall analyze the collected receiving water samples for the following constituents per section 2.3.3 (Water Quality Analysis Specifications) of this Attachment:

- Ammonia, and
- Appropriate bacterial indicator(s) per the applicable Basin Plan water quality objectives, including one or more of the following, unless directed otherwise by the Regional Water Board:
  - Total Coliform Bacteria
  - Fecal Coliform Bacteria
  - *E-coli*
  - Enterococcus

  Dependent on the receiving water(s), sampling of bacterial indicators shall be sufficient to determine post-spill (after the spill) compliance with the water quality objectives and bacterial standards of the California Ocean Plan or the California Inland Surface Water Enclosed Bays, and Estuaries Plan, including the frequency and/or number of post-spill receiving water samples as may be specified in the applicable plans.

The Enrollee shall collect and analyze additional samples as required by the applicable Regional Water Board Executive Officer or designee.

2.3.3. Water Quality Analysis Specifications

Spill monitoring must be representative of the monitored activity (40 Code of Federal Regulations section 122.41(j)(1)).

Sufficiently Sensitive Methods

Sample analysis must be conducted according to sufficiently sensitive test methods approved under 40 Code of Federal Regulations Part 136 for the sample analysis of pollutants. For the purposes of this General Order, a method is sufficiently sensitive when the minimum level of the analytical method approved under 40 Code of Federal Regulations Part 136 is at or below the receiving water pollutant criteria.

Environmental Laboratory Accreditation Program-Accredited Laboratories

The analysis of water quality samples required per this General Order must be performed by a laboratory that has accreditation pursuant to Article 3 (commencing with section 100825) of Chapter 4 of Part 1 of Division 101 of the Health and Safety Code. (Water Code section 13176(a).) The State Water Board accredits laboratories through its Environmental Laboratory Accreditation Program (ELAP).

2.3.4. Receiving Water Sampling Locations

The Enrollee shall collect receiving water samples at the following locations.

Sampling of Flow in Drainage Conveyance System (DCS) Prior to Discharge

Sampling Location	Sampling Location Description
DCS-001	A point in a drainage conveyance system before the drainage conveyance system flow discharges into a receiving water.

Receiving Surface Water Sampling (RSW)[1]

Sampling Location	Sampling Location Description
RSW-001 Point of Discharge	A point in the receiving water where sewage initially enters the receiving water.
RSW-001U: Upstream of Point of Discharge	A point in the receiving water, upstream of the point of sewage discharge, to capture ambient conditions absent of sewage discharge impacts.

Sampling Location	Sampling Location Description
RSW-001D: Downstream of Point of Discharge	A point in the receiving water, downstream of the point of sewage discharge, where the spill material is fully mixed with the receiving water.

[1] The Enrollee must use its best professional judgment to determine the upstream and downstream distances based on receiving water flow, accessibility to upstream/downstream waterbody banks, and size of visible sewage plume.

2.4. Safety and Access Exceptions

If the Enrollee encounters access restrictions or unsafe conditions that prevents its compliance with spill response requirements or monitoring requirements in this General Order, the Enrollee shall provide documentation of access restrictions and/or safety hazards in the corresponding required report.

3. REPORTING REQUIREMENTS

All reporting required in this General Order must be submitted electronically to the online CIWQS Sanitary Sewer System Database (https://ciwqs.waterboards.ca.gov), unless specified otherwise in this General Order. Electronic reporting may solely be conducted by a Legally Responsible Official or Data Submitter(s) previously designated by the Legally Responsible Official, as required in section 5.8 (Designation of Data Submitters) of this General Order.

The Enrollee shall report any information that is protected by the Homeland Security Act, by email to SanitarySewer@waterboards.ca.gov, with a brief explanation of the protection provided by the Homeland Security Act for the subject report to be protected from unauthorized disclosure and/or public access, and for official Water Board regulatory purposes only.

3.1. Reporting Requirements for Individual Category 1 Spill Reporting

3.1.1. Draft Spill Report for Category 1 Spills

Within three (3) business days of the Enrollee's knowledge of a Category 1 spill, the Enrollee shall submit a Draft Spill Report to the online CIWQS Sanitary Sewer System Database.

The Draft Spill Report must, at minimum, include the following items:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the Enrollee was notified of, or self-discovered, the spill;
4. Operator arrival time;

5. Estimated spill start date and time;
6. Date and time the Enrollee notified the California Office of Emergency Services, and the assigned control number;
7. Description, photographs, and GPS coordinates of the system location where the spill originated;
    - If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;
8. Estimated total spill volume exiting the system;
9. Description and photographs of the extent of the spill and spill boundaries;
10. Did the spill reach a drainage conveyance system? If Yes:
    - Description of the drainage conveyance system transporting the spill;
    - Photographs of the drainage conveyance system entry location(s);
    - Estimated spill volume fully recovered from the drainage conveyance system;
    - Estimated spill volume remaining within the drainage conveyance system;
11. Description and photographs of all discharge point(s) into the surface water;
12. Estimated spill volume that discharged to surface waters; and
13. Estimated total spill volume recovered.

3.1.2. Certified Spill Report for Category 1 Spills

Within 15 calendar days of the spill end date, the Enrollee shall submit a Certified Spill Report for Category 1 spills, to the online CIWQS Sanitary Sewer System Database. Upon completion of the Certified Spill Report, the online CIWQS Sanitary Sewer System Database will issue a final spill event identification number.

The Certified Spill Report must, at minimum, include the following mandatory information in addition to all information in the Draft Spill Report per section 3.1.1 (Draft Spill Report for Category 1 Spills) above:

1. Description of the spill event destination(s), including GPS coordinates if available, that represent the full spread and reach of the spill;
2. Spill end date and time;
3. Description of how the spill volume estimations were calculated, including at a minimum:
    - The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
    - The methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time;

4. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
5. System failure location (for example, main, lateral, pump station, etc.);
6. Description of the pipe material, and estimated age of the pipe material, at the failure location;
7. Description of the impact of the spill;
8. Whether or not the spill was associated with a storm event;
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of major milestones for those steps;
11. Spill response completion date;
12. Detailed narrative of investigation and investigation findings of cause of spill;
13. Reasons for an ongoing investigation (as applicable) and the expected date of completion;
14. Name and type of receiving water body(s);
15. Description of the water body(s), including but not limited to:
    - Observed impacts on aquatic life,
    - Public closure, restricted public access, temporary restricted use, and/or posted health warnings due to spill,
    - Responsible entity for closing/restricting use of water body, and
    - Number of days closed/restricted as a result of the spill.
16. Whether or not the spill was located within 1,000 feet of a municipal surface water intake; and
17. If water quality samples were collected, identify sample locations and the parameters the water quality samples were analyzed for. If no samples were taken, Not Applicable shall be selected.

3.1.3. Spill Technical Report for Individual Category 1 Spill in which 50,000 Gallons or Greater Discharged into a Surface Water

For any spill in which 50,000 gallons or greater discharged into a surface water, **within 45 calendar days** of the spill end date, the Enrollee shall submit a Spill Technical Report to the online CIWQS Sanitary Sewer System Database. The Spill Technical Report, at minimum, must include the following information:

1. Spill causes and circumstances, including at minimum:
    - Complete and detailed explanation of how and when the spill was discovered;

- Photographs illustrating the spill origin, the extent and reach of the spill, drainage conveyance system entrance and exit, receiving water, and post-cleanup site conditions;
- Diagram showing the spill failure point, appearance point(s), the spill flow path, and ultimate destinations;
- Detailed description of the methodology employed, and available data used to calculate the discharge volume and, if applicable, the recovered spill volume;
- Detailed description of the spill cause(s);
- Description of the pipe material, and estimated age of the pipe material, at the failure location;
- Description of the impact of the spill;
- Copy of original field crew records used to document the spill; and
- Historical maintenance records for the failure location.

2. Enrollee's response to the spill:
   - Chronological narrative description of all actions taken by the Enrollee to terminate the spill;
   - Explanation of how the Sewer System Management Plan Spill Emergency Response Plan was implemented to respond to and mitigate the spill; and
   - Final corrective action(s) completed and a schedule for planned corrective actions, including:
     - Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable,
     - Identifiable system modifications, and operation and maintenance program modifications needed to prevent repeated spill occurrences, and
     - Necessary modifications to the Emergency Spill Response Plan to incorporate lessons learned in responding to and mitigating the spill.
3. Water Quality Monitoring, including at minimum:
   - Description of all water quality sampling activities conducted;
   - List of pollutant and parameters monitored, sampled and analyzed; as required in section 2.3 (Receiving Water Monitoring) of this Attachment;
   - Laboratory results, including laboratory reports;
   - Detailed location map illustrating all water quality sampling points; and
   - Other regulatory agencies receiving sample results (if applicable).
4. Evaluation of spill impact(s), including a description of short-term and long-term impact(s) to beneficial uses of the surface water.

3.1.4. Amended Certified Spill Reports for Individual Category 1 Spills

The Enrollee shall update or add additional information to a Certified Spill Report within **90 calendar days** of the spill end date by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

After **90 calendar days**, the Enrollee shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the Amended Spill Report due date.

3.2. Reporting Requirements for Individual Category 2 Spill Reporting

3.2.1. Draft Spill Report for Category 2 Spills

Within three (3) business days of the Enrollee's knowledge of a Category 2 spill, the Enrollee shall submit a Draft Spill Report to the online CIWQS Sanitary Sewer System Database.

The Draft Spill Report must, at minimum, include the following items:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the Enrollee was notified of, or self-discovered, the spill;
4. Operator arrival time;
5. Estimated spill start date and time;
6. Date and time the Enrollee notified the California Office of Emergency Services, and the assigned control number;
7. Description, photographs, and GPS coordinates of the system location where the spill originated;

   If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;
8. Estimated total spill volume exiting the system;
9. Description and photographs of the extent of the spill and spill boundaries;
10. Did the spill reach a drainage conveyance system? If Yes:
    - Description of the drainage conveyance system transporting the spill;
    - Photographs of the drainage conveyance system entry location(s);
    - Estimated spill volume fully recovered from the drainage conveyance system;
    - Estimated spill volume remaining within the drainage conveyance system;

- Estimated spill volume discharged to a groundwater infiltration basin or facility, if applicable; and

11. Estimated total spill volume recovered.

3.2.2. Certified Spill Report for Category 2 Spills

Within 15 calendar days of the spill end date, the Enrollee shall submit a Certified Spill Report for the Category 2 spill, to the online CIWQS Sanitary Sewer System Database (https://ciwqs.waterboards.ca.gov). Upon completion of the Certified Spill Report, the online CIWQS Sanitary Sewer System Database will issue a final spill event identification number.

The Certified Spill Report must, at minimum, include the following mandatory information in addition to all information in the Draft Spill Report per section 3.2.1 (Draft Spill Report for Category 2 Spills) above:

1. Description of the spill event destination(s), including GPS coordinates if available, that represent the full spread and reach of the spill;
2. Spill end date and time;
3. Description of how the spill volume estimations were calculated, including at a minimum:
   - The methodology, assumptions and type of data relied upon, such as supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
   - The methodology(ies), assumptions and type of data relied upon for estimations of the spill start time and the spill end time;
4. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
5. System failure location (for example, main, pump station, etc.);
6. Description of the pipe/infrastructure material, and estimated age of the pipe material, at the failure location;
7. Description of the impact of the spill;
8. Whether or not the spill was associated with a storm event;
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of major milestones for those steps;
11. Spill response completion date;
12. Detailed narrative of investigation and investigation findings of cause of spill;
13. Reasons for an ongoing investigation (as applicable) and the expected date of completion; and

14. Whether or not the spill was located within 1,000 feet of a municipal surface water intake.

3.2.3. Amended Certified Spill Reports for Individual Category 2 Spills

The Enrollee shall update or add additional information to a Certified Spill Report within **90 calendar days** of the spill end date by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

After **90 calendar days**, the Enrollee shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the Amended Spill Report due date.

3.3. Monthly Certified Spill Reporting for Category 3 Spills

The Enrollee shall report and certify all Category 3 spills to the online CIWQS Sanitary Sewer System Database within 30 calendar days after the end of the month in which the spills occurred. (For example, all Category 3 spills occurring in the month of February shall be reported and certified by March 30th). After the Legally Responsible Official certifies the spills, the online CIWQS Sanitary Sewer System Database will issue a spill event identification number for each spill.

The monthly reporting of all Category 3 spills must include the following items for each spill:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Date and time the Enrollee was notified of, or self-discovered, the spill;
4. Operator arrival time;
5. Estimated spill start date and time;
6. Description, photographs, and GPS coordinates where the spill originated:
    - If a single spill event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the spill appearance point explanation field;
7. Estimated total spill volume exiting the system;
8. Description and photographs of the extent of the spill and spill boundaries;
9. Did the spill reach a drainage conveyance system? If Yes:
    - Description of the drainage conveyance system transporting the spill;
    - Photographs of the drainage conveyance system entry locations(s);
    - Estimated spill volume fully recovered from the drainage conveyance system; and

- Estimated spill volume discharged to a groundwater infiltration basis or facility, if applicable.

10. Estimated total spill volume recovered;
11. Description of the spill event destination(s), including GPS coordinates, if available, that represent the full spread and reaches of the spill;
12. Spill end date and time;
13. Description of how the spill volume estimations were calculated, including, at minimum:
    - The methodology and type of data relied upon, including supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
    - The methodology and type of data relied upon to estimate the spill start time, on-going spill rate at time of arrival (if applicable), and the spill end time;
14. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
15. System failure location (for example, main, pump station, etc.);
16. Description of the pipe/infrastructure material, and estimated age of the pipe/infrastructure material, at the failure location;
17. Description of the impact of the spill;
18. Whether or not the spill was associated with a storm event;
19. Description of spill response activities including description of immediate spill containment and cleanup efforts;
20. Description of spill corrective actions, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the spill, and a schedule of the major milestones for those steps; including, at minimum:
    - Local regulatory enforcement action taken against an illicit discharge in response to this spill, as applicable, and
    - Identifiable system modifications, and operation and maintenance program modifications needed to prevent repeated spill occurrences at the same spill event location, including:
      - Adjusted schedule/method of preventive maintenance,
      - Planned rehabilitation or replacement of sanitary sewer asset,
      - Inspected, repaired asset(s), or replaced defective asset(s),
      - Capital improvements,
      - Documentation verifying immediately implemented system modifications and operating/maintenance modifications,
      - Description of spill response activities,

- Spill response completion date, and
- Ongoing investigation efforts, and expected completion date of investigation to determine the full cause of spill;

21. Detailed narrative of investigation and investigation findings of cause of spill.

3.4. Monthly Certified Spill Reporting for Category 4 Spills

The Enrollee shall report and certify the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills to the online CIWQS Sanitary Sewer System Database, within 30 calendar days after the end of the month in which the spills occurred.

3.5. Amended Certified Spill Reports for Category 3 Spills

Within 90 calendar days of the certified Spill Report due date, the Enrollee may update or add additional information to a certified Spill Report by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

After 90 calendar days, the Legally Responsible Official shall contact the State Water Board at SanitarySewer@waterboards.ca.gov to request to amend a certified Spill Report. The Legally Responsible Official shall submit justification for why the additional information was not reported within the 90-day timeframe for amending the certified Spill Report, as provided above.

3.6. Annual Certified Spill Reporting of Category 4 and/or Lateral Spills

For all Category 4 spills and spills from its owned and/or operated laterals that are caused by a failure or blockage in the lateral and that do not discharge to a surface water, the Enrollee shall:

- Maintain records per section 4.4. of this Attachment;

  The Enrollee shall provide records upon request by State Water Board or Regional Water Board staff.

- Annually upload and certify a report, in an appropriate digital format, of all recordkeeping of spills to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occurred.

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 this General Order.

3.7. Monthly Certification of "No-Spills" or "Category 4 Spills" and/or "Non-Category 1 Lateral Spills"

If either (1) no spills occur during a calendar month or (2) only Category 4, and/or Enrollee-owned and/or operated lateral spills (that do not discharge to a surface water) occur during a calendar month, the Enrollee shall certify, within 30 calendar days after

the end of each calendar month, either a “No-Spill” certification statement, or a “Category 4 Spills” and/or “Non-Category 1 Lateral Spills” certification statement, in the online CIWQS Sanitary Sewer System Database, certifying that there were either no spills, or Category 4 and/or Non-Category 1 Lateral Spills that will be reported annually (per section 3.6 of this Attachment) for the designated month.

If a spill starts in one calendar month and ends in a subsequent calendar month, and the Enrollee has no further spills of any category, in the subsequent calendar month, the Enrollee shall certify “no-spills” for the subsequent calendar month.

If the Enrollee has no spills from its systems during a calendar month, but the Enrollee voluntarily reported a spill from a private lateral or a private system, the Enrollee shall certify “no-spills” for that calendar month.

If the Enrollees has spills from its owned and/or operated laterals during a calendar month, the Enrollee shall not certify “no spills” for that calendar month.

3.8. Electronic Sanitary Sewer System Service Area Boundary Map

The Legally Responsible Official shall submit, to the State Water Board, an up-to-date electronic spatial map of its sewer system service area boundaries. The map must be in accordance with section 5.14 (Electronic Sanitary Sewer System Service Area Boundary Map) of this General Order and the specification provided on the statewide Sanitary Sewer Systems program website. The map must include the location of wastewater treatment facility(ies) that treats the sewer system waste, if in the same sewer service boundary.

By the Effective Date of this General Order, specifications for the electronic sanitary sewer service area boundary map format will be provided on the statewide Sanitary Sewer Systems Order program website.

3.9. Annual Report (Previously termed as Collection System Questionnaire in General Order 2006-0003-DWQ)

A new Enrollee shall complete and submit its first certified Annual Report into the online CIWQS Sanitary Sewer System Database, **within 30 days of obtaining a CIWQS account**; Subsequent Annual Reports are due by April 1 of each year.

All enrollees shall update their previous year’s Annual Report, **by April 1 of each year after the Effective Date of this General Order,** for each calendar year (January 1 through December 31)**.**

The Annual Report must be entered directly into the online CIWQS Sanitary Sewer System Database. The Enrollee’s Legally Responsible Official shall certify the Annual Report as instructed in CIWQS;

The Annual Report must address, and update as applicable, the following items:

- Population served;

- Updated sewer system service area boundary map, if service area boundary has changed from original map submitted per section 5.14 (Electronic Sanitary Sewer System Service Area Boundary Map) of this General Order;
- Number of system operation and maintenance staff:
  - Entry level (less than two years of experience),
  - Journey level (greater than two years of experience),
  - Supervisory level, and
  - Managerial level;
- Number of operation and maintenance staff certified as a certified collection system operator by the California Water Environmental Association (CWEA), with:
  - Corresponding number of certified collection system operator grade levels (Grade I, II, III, IV, and V);
- System information:
  - Miles of system gravity and force mains,
  - Number of upper and lower service laterals connected to system,
  - Estimated number of upper and lower laterals owned and/or operated by the Enrollee,
  - Portion of laterals that is Enrollee's responsibility,
  - Average age the major components of system infrastructure,
  - Number and age of pump stations, and
  - Estimated total miles of the system pipeline not accessible for maintenance;
- Name and location of the treatment plant(s) receiving sanitary sewer system's waste;
- Name of satellite sewer system tributaries;
- Number of system's gravity sewer above or underground crossings of water bodies throughout system;
- Number of force main (pressurized pipe) above or underground crossings of water bodies throughout system;
- Number of siphons used to convey waste throughout the sewer system;
- Miles of sewer system cleaned;
- Miles of sewer system video inspected, or comparable (i.e., video closed-circuit television or alternative inspection methods);
- System Performance Evaluation as specified in section 5.11 (System Performance Analysis) of this General Order;
- Major spill causes (for example, root intrusion, grease deposition);

- System infrastructure failure points (for example, main, pump station, lateral, etc.);
- Ongoing spill investigations; and
- Actions taken to address system deficiencies.

3.10. Sewer System Management Plan Audit Reporting Requirements

The Enrollee shall submit its Sewer System Management Plan Audit and other pertinent audit information, in accordance with section 5.4 (Sewer System Management Plan Audits) of this General Order, to the online CIWQS Sanitary Sewer System Database **by six (6) months after the end of the 3-year audit period**.

If a Sewer System Management Plan Audit is not conducted as required: the Enrollee shall:

- Update the online CIWQS Sanitary Sewer System Database and select the justification for not conducting the Audit; and
- Notify its corresponding Regional Water Board (see Attachment F (Regional Water Quality Control Board Contact Information)) of the justification for the lapsed requirements.

The Enrollee's reporting of a justification for not conducting a timely Audit does not justify non-compliance with this General Order. The Enrollee shall:

- Submit the late Audit as required in this General Order; and
- Comply with subsequent Audit requirements and due dates corresponding with the original audit cycle.

3.11. Sewer System Management Plan Reporting Requirements

For an Existing Enrollee previously regulated by Order 2006-0003-DWQ: **Within every six (6) years after the required due date of its last Plan Update**, the Legally Responsible Official shall upload and certify a local governing entity-approved Sewer System Management Plan Update to the online CIWQS Sanitary Sewer System Database. If the electronic document format or size capacity prevents the electronic upload of the Plan, the Legally Responsible Official shall report an electronic link to its updated Sewer System Management Plan posted on its own website.

Order 2006-0003-DWQ required each enrollee to develop its initial Sewer System Management Plan per the following schedule, with required Plan updates at a frequency of 5-years thereafter:

Systems serving populations: Greater than 100,000: May 2, 2009

Between 100,000 and 10,000: August 2, 2009

Between 10,000 and 2,500: May 2, 2010

Less than 2,500: August 2, 2010

This Order carries forth the previously-required Plan Update schedule per Order 2006-0003-DWQ. Per the six-year Plan Update frequency required in this Order, the Enrollee shall upload and certify its first Plan Update, to the online CIWQS Sanitary Sewer System Database by the following due dates, with subsequent Plan Updates at the frequency of six years thereafter:

Systems serving populations: Greater than 100,000: May 2, 2025

Between 100,000 and 10,000: August 2, 2025

Between 10,000 and 2,500: May 2, 2026

Less than 2,500: August 2, 2026

For a New Enrollee: **Within twelve (12) months of its Application for Enrollment Approval date**, the Legally Responsible Official of a new Enrollee shall upload and certify a local governing entity-approved Sewer System Management Plan to the online CIWQS Sanitary Sewer System Database. If electronic document format or size capacity prevents the electronic upload of the Plan, the Legally Responsible Official shall report an electronic link to its Sewer System Management Plan posted on its own website. The due date for subsequent 6-year Plan updates, is six (6) years from the submittal due date of the new Enrollee's first Sewer System Management Plan.

4. RECORDKEEPING REQUIREMENTS

The Enrollee shall maintain records to document compliance with the provisions of this General Order, and previous General Order 2006-0003-DWQ as applicable, for each sanitary sewer system owned, including any required records generated by an Enrollee's contractor(s).

4.1. Recordkeeping Time Period

The Enrollee shall maintain records of documents required in this Attachment, including records collected for compliance with this General Order, and records collected in accordance with previous General Order 2006-0003-DWQ, for five (5) years.

4.2. Availability of Documents

The Enrollee shall make the records required in this General Order readily available, either electronic or hard copies, for review by Water Board staff during onsite inspections or through an information request.

4.3. Spill Reports

The Enrollee shall maintain records for each of the following spill-related events and activities:

- Spill event complaint, including but not limited to records documenting how the Enrollee responded to notifications of spills. Each complaint record must, at a minimum, include the following information:
    - Date, time, and method of notification,

- Date and time the complainant first noticed the spill, if available,
- Narrative description of the complaint, including any information the caller provided regarding whether the spill has reached surface waters or a drainage conveyance system, if available,
- Complainant's contact information, if available, and
- Final resolution of the complaint;

- Records documenting the steps and/or remedial action(s) undertaken by the Enrollee, using all available information, to comply with this General Order, and previous General Order 2006-0003-DWQ as applicable;
- Records documenting how estimate(s) of volume(s) and, if applicable, volume(s) of spill recovered were calculated;
- All California Office of Emergency Services notification records, as applicable; and
- Records, in accordance with the Monitoring Requirements in this Attachment.

4.4. Recordkeeping of Category 4 Spills and Non-Category 1 Lateral Spills

An Enrollee must maintain the following records for each individual Category 4 spill and for each individual non-Category 1 Enrollee-owned and/or operated lateral spill, and report in accordance to section 3.6 (Annual Certified Spill Reporting of Category 4 and/or Lateral Spills) of this Attachment.

Recordkeeping of Individual Category 4 Spill Information:

1. Contact information: Name and telephone number of Enrollee contact person to respond to spill-specific questions;
2. Spill location name;
3. Description and GPS coordinates for the system location where the spill originated;
4. Did the spill reach a drainage conveyance system? If Yes:
   - Description of drainage conveyance system location,
   - Estimated spill volume fully recovered within the drainage conveyance system, and
   - Estimated spill volume remaining within the drainage conveyance system;
5. Estimated total spill volume exiting the sanitary sewer system;
6. Spill date and start time;
7. Spill cause(s) (for example, root intrusion, grease deposition, etc.);
8. System failure location (for example, main, pump station, etc.);
9. Description of spill response activities including description of immediate spill containment and cleanup efforts;
10. Description of how the volume estimation was calculated, including, at minimum:

- The methodology and type of data relied upon, including supervisory control and data acquisition (SCADA) records, flow monitoring or other telemetry information used to estimate the volume of the spill discharged, and the volume of the spill recovered (if any volume of the spill was recovered), and
- The methodology and type of data relied upon to estimate the spill start time, on-going spill rate at time of arrival (if applicable), and the spill end time;

11. Description of implemented system modifications and operating/maintenance modifications.

Recordkeeping of Individual Lateral Spill Information:

1. Date and time the Enrollee was notified of, or self-discovered, the spill;
2. Location of individual spill;
3. Estimated individual spill volume;
4. Spill cause(s) (for example, root intrusion, grease deposition, etc.); and
5. Description of how the volume estimations were calculated.

Total Annual Spill Information:

1. Estimated total annual spill volume;
2. Description of spill corrective actions, including at minimum:
   - Local regulatory enforcement action taken against the sewer lateral owner in response to a spill, as applicable, and
   - System operation, maintenance and program modifications implemented to prevent repeated spill occurrences at the same spill location.

4.5. Sewer System Telemetry Records

The Enrollee shall maintain the following sewer system telemetry records if used to document compliance with this General Order, and previous General Order 2006-0003-DWQ as applicable, including spill volume estimates:

- Supervisory control and data acquisition (SCADA) system(s);
- Alarm system(s);
- Flow monitoring device(s) or other instrument(s) used to estimate sewage flow rates, and/or volumes;
- Computerized maintenance management system records; and
- Asset management-related records.

4.6. Sewer System Management Plan Implementation Records

The Enrollee shall maintain records documenting the Enrollee's implementation of its Sewer System Management Plan, including documents supporting its Sewer System Management Plan audits, corrections, modifications, and updates to the Sewer System Management Plan.

4.7. Audit Records

The Enrollee shall maintain, at minimum, the following records pertaining to its Sewer System Management Plan audits, and other internal audits:

- Completed audit documents and findings;
- Name and contact information of staff and/or consultants that conducted or involved in the audit; and
- Follow-up actions based on audit findings.

4.8. Equipment Records

The Enrollee shall maintain a log of all owned and leased sewer system cleaning, operational, maintenance, construction, and rehabilitation equipment.

4.9. Work Orders

The Enrollee shall maintain record of work orders for operations and maintenance projects.

ATTACHMENT E2 – SUMMARY OF NOTIFICATION, MONITORING AND REPORTING REQUIREMENTS

This Attachment provides a summary of notification, monitoring and reporting requirements, by spill category, and for Enrollee-owned and/or operated laterals as required in Attachment E1 of this General Order, for quick reference purposes only.

Table E2-1

Spill Category 1: Spills to Surface Waters

Spill Requirement	Due	Method
Notification	**Within two (2) hours** of the Enrollee's knowledge of a Category 1 spill of 1,000 gallons or greater, discharging or threatening to discharge to surface waters: Notify the California Office of Emergency Services and obtain a notification control number.	California Office of Emergency Services at: (800) 852-7550 (Section 1 of Attachment E1)
Monitoring	• Conduct spill-specific monitoring; • Conduct water quality sampling of the receiving water within **18 hours** of initial knowledge of spill of 50,000 gallons or greater to surface waters.	(Section 2 of Attachment E1)
Reporting	• Submit Draft Spill Report **within three (3) business days** of the Enrollee's knowledge of the spill; • Submit Certified Spill Report **within 15 calendar days** of the spill end date; • Submit Technical Report **within 45 calendar days** after the spill end date for a Category 1 spill in which **50,000 gallons or greater** discharged to surface waters; and • Submit Amended Spill Report **within 90 calendar days** after the spill end date.	(Section 3.1 of Attachment E1)

Table E2-2
Spill Category 2: **Spills of 1,000 Gallons or Greater That Do Not Discharge to Surface Waters**

Spill Requirements	Due	Method
Notification	**Within two (2) hours** of the Enrollee's knowledge of a Category 2 spill of 1,000 gallons or greater, discharging or threatening to discharge to waters of the State: Notify California Office of Emergency Services and obtain a notification control number.	California Office of Emergency Services at: (800) 852-7550 (Section 1 of Attachment E1)
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	• Submit Draft Spill Report **within three (3) business days** of the Enrollee's knowledge of the spill; • Submit Certified Spill Report **within 15 calendar days** of the spill end date; and • Submit Amended Spill Report **within 90 calendar days** after the spill end date.	(Section 3.2 of Attachment E1)

Table E2-3
Spill Category 3: Spills of Equal or Greater than 50 Gallons and Less than 1,000 Gallons That Does Not Discharge to Surface Waters

Spill Requirements	Due	Method
Notification	Not Applicable	Not Applicable
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	• Submit monthly Certified Spill Report to the online CIWQS Sanitary Sewer System Database within **30 calendars days** after the end of the month in which the spills occur; and • Submit Amended Spill Reports **within 90 calendar days** after the Certified Spill Report due date.	(Section 3.3 and 3.5 of Attachment E1)

Table E2-4
Spill Category 4: Spills Less Than 50 Gallons That Do Not Discharge to Surface Waters

Spill Requirements	Due	Method
Notification	Not Applicable	Not Applicable
Monitoring	Conduct spill-specific monitoring.	(Section 2 of Attachment E1)
Reporting	• If, during any calendar month, Category 4 spills occur, certify monthly, the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills into the online CIWQS Sanitary Sewer System Database, within 30 days after the end of the calendar month in which the spills occurred. • Upload and certify a report, in an acceptable digital format, of all Category 4 spills to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occur.	(Section 3.4, 3.6, 3.7 and 4.4 of Attachment E1)

Table E2-5
Enrollee Owned and/or Operated Lateral Spills That Do Not Discharge to Surface Waters

Spill Requirements	Due	Method
Notification	**Within two (2) hours** of the Enrollee's knowledge of a spill of 1,000 gallons or greater, from an enrollee-owned and/or operated lateral, discharging or threatening to discharge to waters of the State: Notify California Office of Emergency Services and obtain a notification control number. Not applicable to a spill of less than 1,000 gallons.	California Office of Emergency Services at: (800) 852-7550 (Section 1 of Attachment E1)
Monitoring	Conduct visual monitoring.	(Section 2 of Attachment E1)
Reporting	• Upload and certify a report, in an acceptable digital format, of all lateral spills (that do not discharge to a surface water) to the online CIWQS Sanitary Sewer System Database, by February 1st after the end of the calendar year in which the spills occur. • Report a lateral spill of any volume that discharges to a surface water as a Category 1 spill.	(Sections 3.6, 3.7 and 4.4 of Attachment E1)

ATTACHMENT F – REGIONAL WATER QUALITY CONTROL BOARD CONTACT INFORMATION

This Attachment provides a map, list of counties, and contact information to assist the Enrollee in identifying the corresponding Regional Water Quality Control Board office, for all Regional Water Board notification requirements in this General Order.

Region 1 -- North Coast Regional Water Quality Control Board:
Del Norte, Glenn, Humboldt, Lake, Marin, Mendocino, Modoc, Siskiyou, Sonoma, and Trinity counties.

RB1SpillReporting@waterboards.ca.gov or (707) 576-2220

Region 2 -- San Francisco Bay Regional Water Quality Control Board:
Alameda, Contra Costa, San Francisco, Santa Clara (Northern most part of Morgan Hill), San Mateo, Marin, Sonoma, Napa, Solano counties.

RB2SpillReports@waterboards.ca.gov or (510) 622-2369

Region 3 -- Central Coast Regional Water Quality Control Board:
Santa Clara (most of Morgan Hill), San Mateo (Southern portion), Santa Cruz, San Benito, Monterey, Kern (small portions), San Luis Obispo, Santa Barbara, Ventura (Northern portion) counties.

CentralCoast@waterboards.ca.gov or (805) 549-3147

Region 4 -- Los Angeles Regional Water Quality Control Board:
Los Angeles, Ventura counties (small portions of Kern and Santa Barbara counties).

rb4-ssswdr@waterboards.ca.gov or (213) 576-6600

Region 5 -- Central Valley Regional Water Quality Control Board:

Rancho Cordova (Sacramento) Office: Colusa, Lake, Sutter, Yuba, Sierra, Nevada, Placer, Yolo, Napa, (North East), Solano (West), Sacramento, El Dorado, Amador, Calaveras, San Joaquin, Contra Costa (East), Stanislaus, Tuolumne counties.

RB5sSpillReporting@waterboards.ca.gov or (916) 464-3291

Fresno Office: Fresno, Kern, Kings, Madera, Mariposa, Merced, and Tulare counties, and small portions of San Benito and San Luis Obispo counties.

RB5fSpillReporting@waterboards.ca.gov or (559) 445-5116

Redding Office: Butte, Glen, Lassen, Modoc, Plumas, Shasta, Siskiyou, and Tehama counties.

RB5rSpillReporting@waterboards.ca.gov or (530) 224-4845

Region 6 -- Lahontan Regional Water Quality Control Board:

Lake Tahoe Office: Alpine, Modoc (East), Lassen (East side and Eagle Lake), Sierra, Nevada, Placer, El Dorado counties.

RB6sSpillReporting@waterboards.ca.gov or (530) 542-5400

Victorville Office: Mono, Inyo, Kern (East), San Bernardino, Los Angeles (North East corner) counties.

RB6vSpillReporting@waterboards.ca.gov or (760) 241-6583

Region 7 -- Colorado River Basin Regional Water Quality Control Board:

Imperial county and portions of San Bernardino, Riverside, San Diego counties.

RB7SpillReporting@waterboards.ca.gov or (760) 346-7491

Region 8 -- Santa Ana Regional Water Quality Control Board:

Orange, Riverside, San Bernardino counties.

RB8SpillReporting@waterboards.ca.gov or (951) 782-4130

Region 9 -- San Diego Regional Water Quality Control Board:

San Diego county and portions of Orange and Riverside counties.

RB9Spill_Report@waterboards.ca.gov or (619) 516-1990

End of Order 2022-0103-DWQ

APPENDIX B

FORTUNA MUNICIPAL CODE

Division II. Public Sewers*

Chapter 13.20
GENERAL PROVISIONS

Sections:

13.20.010 Citation.

13.20.020 Purpose of provisions.

13.20.030 Scope of provisions.

13.20.040 Sewage disposal policy.

13.20.050 Disposal of wastes generally.

13.20.060 Treatment required.

13.20.070 Sewer required.

13.20.080 Occupancy prohibited in nonconforming buildings.

13.20.090 Filling abandoned disposal systems required.

13.20.100 Cesspools deemed nuisance.

13.20.110 Disconnection to enforce provisions.

13.20.120 Nuisance abatement.

13.20.130 Disconnection deemed enforcement only.

13.20.140 Interference with system prohibited.

13.20.150 Permit and fees.

13.20.160 Inspectors – Generally.

13.20.170 Inspectors – Powers and authorities.

13.20.180 Relief from provisions – Application.

13.20.190 Relief from provisions – Council action.

13.20.200 Violations – Citation and correction.

13.20.210 Violations – Liability.

* For statutory provisions on sewerage systems, see Health and Safety Code § 5470 et seq.; for provisions authorizing cities to construct and maintain drains and sewers, see Government Code § 38900 et seq.

13.20.010 Citation.

The ordinance codified in this division shall be known as the “Sanitary Code of the City of Fortuna.” (Ord. 76-360 § 205).

13.20.020 Purpose of provisions.

A. The purpose of this division is to provide for the maximum possible beneficial public use of the city's facilities through adequate regulation of sewer construction, sewer use, and industrial wastewater discharges; to provide for equitable distribution of the city's costs; and to provide procedures for complying with requirements placed upon the city by other regulatory agencies.

B. The rules and regulations set forth in this division respecting sewer construction, disposal of sewage, drainage of buildings, and connection to the sewage works of the city are adopted, and all work in respect thereto shall be performed as required in this division and not otherwise. (Ord. 76-360 §§ 201, 202).

13.20.030 Scope of provisions.

A. This division shall be interpreted in accordance with the definitions set forth in Chapter 13.24 FMC.

B. The provisions of this division shall apply to the direct or indirect discharge of all liquid-carried wastes to facilities of the city. This division, among other things, provides for the regulation of sewer construction in areas within the city, the quantity and quality of discharged wastes, the degree of waste pretreatment required, the setting of waste discharge fees to provide for equitable distribution of costs, the approval of plans for sewer construction, the issuance of permits for industrial wastewater discharges and of other miscellaneous permits and the establishment of penalties for violation of this division. (Ord. 76-360 § 203).

13.20.040 Sewage disposal policy.

A. The city operates systems of trunk and collector sewers serving homes, industries and commercial establishments throughout a major portion of the city. Also, the city has built and operates wastewater treatment and disposal facilities.

B. Generally, liquid wastes originating within the city's boundaries will be removed by the city's sewerage systems provided the wastes will not:

1. Damage structures;

2. Create nuisances such as odors;

3. Menace public health;

4. Impose unreasonable collection, treatment or disposal costs on the city;

5. Interfere with wastewater treatment processes;

6. Exceed quality requirements set by regulatory government agencies; or

7. Detrimentally affect the local environment;

C. The highest and best use of the city's sewerage systems is the conveyance, treatment and disposal of domestic wastewater. The use of the city's sewerage systems for industrial wastewater discharges is subject to further regulation by the city.

D. To comply with stated policies of the federal government and to permit the city to set increasingly higher standards of treatment plant effluent quality, provisions are made by this division for the regulation of industrial wastewater discharges. This division establishes quantity and quality limitations on industrial wastewater discharges which may adversely affect the city's sewerage systems or effluent quality. Methods of cost recovery from industrial wastewater dischargers are also established by separate resolution where the discharges impose inequitable collection, treatment, or disposal costs on the city.

E. Optimum use of the facilities of the city may necessitate that the city require that certain industrial wastewaters be discharged during periods of low flow in the sewerage systems of the city. (Ord. 76-360 § 204).

13.20.050 Disposal of wastes generally.

It is unlawful for any person to place, deposit, or permit to be deposited in any unsanitary manner upon public or private property within the city, or in any area under the jurisdiction of the city, any human or animal excrement, garbage, or other objectionable waste. (Ord. 76-360 § 301).

13.20.060 Treatment required.

It is unlawful to discharge to any stream or watercourse any sewage, industrial wastes, or other polluted waters, except where suitable treatment has been provided in accordance with the provisions of this division. (Ord. 76-360 § 302).

13.20.070 Sewer required.

A. The owner of any building situated within the city and abutting on any street in which there is now located or may in the future be located a public sewer of the city, is required at his expense to connect the building directly with the proper public sewer in accordance with the provisions of this division within 90 days after date of official notice to do so; provided, that the building is within 1,000 feet of the public sewer.

B. It is unlawful for any person whose building is required to be connected to a public sewer under this section to connect to, construct, install or provide, maintain and use any other means of sewage disposal from the building except by connection to a public sewer in the manner as provided in this division. (Ord. 76-360 §§ 207, 305).

13.20.080 Occupancy prohibited in nonconforming buildings.

No building, industrial facility, or other structure shall be occupied until the owner of the premises has complied with all rules and regulations of the city. (Ord. 76-360 § 304).

13.20.090 Filling abandoned disposal systems required.

Where a sewage disposal system is abandoned consequent to connecting with the public sewer, the applicant making the connection shall fill the abandoned septic tank as required by the county health officer within 30 days from the time of connecting to the public sewer. Every abandoned building sewer or part thereof shall be plugged or capped in an approved manner within five feet of the property line. (Ord. 76-360 § 306).

13.20.100 Cesspools deemed nuisance.

It is declared that whenever any area in the city is provided with a sewerage system the further maintenance or use of cesspools or other local means of sewage disposal is a public nuisance. (Ord. 76-360 § 1002).

13.20.110 Disconnection to enforce provisions.

As an alternative method of enforcing the provisions of this division or any other ordinance, rule or regulation of the city, the director of public works shall have the power to disconnect the user or subdivision sewer system from the sewer mains of the city. Upon disconnection, the director of public works shall estimate the cost of disconnection from and reconnection to the system and such user shall deposit the cost, as estimated, of disconnection and reconnection before such user is reconnected to the system. The city shall refund any part of the deposit remaining after payment of all costs of disconnection and reconnection. (Ord. 76-360 § 1003).

13.20.120 Nuisance abatement.

During the period of such disconnection, habitation of such premises by human beings shall constitute a public nuisance, whereupon the city shall cause proceedings to be brought for the abatement of the occupancy of the premises by human beings during the period of such disconnection. In such event, and as a condition of reconnection, there shall be paid to the city a reasonable attorney's fee and cost of suit arising in the action. (Ord. 76-360 § 1004).

13.20.130 Disconnection deemed enforcement only.

The city declares that the procedures set forth in FMC 13.20.110 and 13.20.120 are established as a means of enforcement of the terms and conditions of its rules and regulations, and not as a penalty. (Ord. 76-360 § 1005).

13.20.140 Interference with system prohibited.

No person shall maliciously, willfully, or negligently break, damage, destroy, uncover, deface or tamper with any structure, appurtenance, or equipment which is a part of the city sewage works. Any person violating this provision shall be subject to the penalties provided by law. (Ord. 76-360 § 1101).

13.20.150 Permit and fees.

No public sewer, side sewer, building sewer, or other sewerage facility shall be installed, altered, or repaired within the city until a permit for the work has been obtained from the city and all fees paid in accordance with the requirements of Chapter 13.40 FMC. (Ord. 76-360 § 211).

13.20.160 Inspectors – Generally.

The director of public works may personally perform or employ some fit and qualified person or persons to perform the duties of inspecting the installation, connection, maintenance, and use of all side sewers, public sewers, and facilities in connection therewith in the city, to be known as the city inspector. (Ord. 76-360 § 210).

13.20.170 Inspectors – Powers and authorities.

The officers, inspectors, managers and any duly authorized employees of the city are specifically required to enforce the provisions of this division and shall have the right to enter any and all premises for the purpose of inspection, reinspection, observation, measurement, sampling, testing, or otherwise performing such duties as may be necessary. Enforcement of this provision shall be in accordance with Sections 1822.50 to 1822.57 of the Civil Procedure Code of the state of California. (Ord. 78-409 § 1; Ord. 76-360 § 1102).

13.20.180 Relief from provisions – Application.

A. When any person, by reason of special circumstances, is of the opinion that any provision of this division is unjust or inequitable as applied to his premises, he may make written application to the council, stating the special circumstances, stating the provision complained of, and requesting suspension or modification of that provision as applied to his premises.

B. If such application is approved, the council may, by resolution, suspend or modify the provision complained of as applied to such premises to be effective as of the date of the application and continuing during the period of the special circumstances. (Ord. 76-360 § 208).

13.20.190 Relief from provisions – Council action.

The council may, on its own motion, find that by reason of special circumstances any provision of this regulation and division should be suspended or modified as applied to a particular premises and may, by resolution, order such suspension or modification for such premises during the period of such special circumstances, or any part thereof. (Ord. 76-360 § 209).

13.20.200 Violations – Citation and correction.

Any person found to be violating any provision of this division or any other ordinance, rule, or regulation of the city shall be served by an authorized person of the city with written notice stating the nature of the violation and providing a reasonable time limit for the satisfactory correction thereof. The time limit shall be not less than two nor more than seven working days. The offender shall, within the period of time stated in such notice, permanently cease all violations. All persons shall be held strictly responsible for any and all acts of agents or employees done under the provisions of this division or any other ordinance, rule, or regulation of the city. Upon being notified by the city of any defect arising in any sewer or of any violation of this division, the person or persons having charge of the work shall immediately correct the same. (Ord. 76-360 § 1001).

13.20.210 Violations – Liability.

Any person violating any of the provisions of the ordinances, rules or regulations of the city shall become liable to the city for any expense, loss, or damage occasioned by the city by reason of such violation. (Ord. 76-360 § 1006).

Chapter 13.28
SEWER CONNECTIONS AND CONSTRUCTION

Sections:

13.28.010 Building sewer – Permit required.

13.28.020 Building sewer – Design and construction requirements.

13.28.030 Building sewer – Separate connections required.

13.28.040 Building sewer – Use of old sewers.

13.28.050 Building sewer – Cleanouts.

13.28.060 Building sewer – Too low to permit gravity flow.

13.28.070 Building sewer – Connection to public sewer.

13.28.080 Building sewer – Maintenance.

13.28.090 Building sewer – Testing.

13.28.100 Public sewer – Permit required.

13.28.110 Public sewer – Plans, profiles and specifications filing.

13.28.120 Public sewer – Subdivisions.

13.28.130 Public sewer – Easement required.

13.28.140 Public sewer – Persons authorized to perform work.

13.28.150 Public sewer – Compliance with street work standards.

13.28.160 Public sewer – Design and construction standards.

13.28.170 Public sewer – Completion required.

13.28.180 Backflow prevention device.

13.28.010 Building sewer – Permit required.

In accordance with Chapter 13.40 FMC, no person shall construct a building sewer, lateral sewer or make a connection with any public sewer without first obtaining a written permit from the city and paying all fees and connection charges as required therein. (Ord. 76-360 § 401).

13.28.020 Building sewer – Design and construction requirements.

Design and construction of building sewers and lateral sewers shall be in accordance with the requirements of the city and in accordance with standard city specifications. (Ord. 76-360 § 402).

13.28.030 Building sewer – Separate connections required.

No two adjacent buildings fronting on the same street shall be permitted to join in the use of the same side sewer. Every building or industrial facility must be separately connected with a public sewer if such public sewer exists in the street upon which the property abuts or in an easement which will serve the property. However, two or more buildings located on property belonging to the same owner may be

served with the same side sewer provided the property cannot be subdivided into smaller legal-sized lots. (Ord. 76-360 § 403).

13.28.040 Building sewer – Use of old sewers.

Old building sewers may be used in connection with new buildings only when they are found, upon examination and test by the city inspector, to meet all requirements of city. (Ord. 76-360 § 404).

13.28.050 Building sewer – Cleanouts.

Cleanouts in building sewers shall be provided in accordance with the rules, regulations, and ordinances of the city. All cleanouts shall be maintained watertight. (Ord. 76-360 § 405).

13.28.060 Building sewer – Too low to permit gravity flow.

In all buildings hereafter constructed in which any building sewer is too low to permit gravity flow to the public sewer, sanitary sewage carried by such building sewer shall be lifted by artificial means, approved by the public works director, and discharged to the public sewer at the expense of the owner. (Ord. 76-360 § 406).

13.28.070 Building sewer – Connection to public sewer.

The connection of the building sewer into the lateral sewer shall be made in strict accordance with standard city specifications and at the applicant's expense. The connection to the lateral sewer shall be made in the presence of the city inspector and under his supervision and direction. Any damage to the lateral sewer shall be repaired at the cost of the applicant to the satisfaction of the district inspector. (Ord. 76-360 § 407).

13.28.080 Building sewer – Maintenance.

Building sewers shall be maintained by the owner of the property served thereby. (Ord. 76-360 § 408).

13.28.090 Building sewer – Testing.

All building sewers and lateral sewers shall be tested in strict accordance with standard city specifications. (Ord. 76-360 § 409).

13.28.100 Public sewer – Permit required.

In accordance with Chapter 13.20 FMC, no person shall construct, extend, or connect to any public sewer without first obtaining a written permit from the city and paying all fees and connection charges and furnishing bonds as required therein. The provision of this section requiring permits shall not be construed to apply to contractors constructing sewers and appurtenances under contracts awarded and entered into by the city. (Ord. 76-360 § 501).

13.28.110 Public sewer – Plans, profiles and specifications filing.

The application for a permit for public sewer construction shall be accompanied by three complete sets of plans, profiles and specifications, complying with all applicable ordinances, rules and regulations of the city, prepared by a registered civil engineer showing all details of the proposed work based on an accurate survey of the ground. The application, together with the plans, profiles and specifications shall be examined by the director of public works who shall within 20 days approve them as filed or require them to be modified as he deems necessary for proper installation. When the director of public works is satisfied that the proposed work is proper and the plans, profiles, and specifications are sufficient and correct, he shall order the issuance of a permit predicated upon the payment of all connection charges, fees, and furnishing bonds as required by the city. The permit shall prescribe such terms and conditions as the director of public works finds necessary in the public interest. (Ord. 76-360 § 502).

13.28.120 Public sewer – Subdivisions.

The requirements of FMC 13.28.100 and 13.28.110 shall be fully complied with before any final subdivision map shall be approved by the council. The final subdivision map shall provide for the dedication for public use of streets, easements, or rights-of-way in which public sewer lines are to be constructed. If a final subdivision map of a tract is recorded and the work of constructing sewers to serve the tract is not completed within the time limit allowed in the permit, the city council may extend the time limit or may complete the work and take appropriate steps to enforce the provisions of the bond furnished by the subdivider. (Ord. 76-360 § 503).

13.28.130 Public sewer – Easement required.

In the event that an easement is required for the extension of the public sewer or the making of connections, the applicant shall procure and have accepted by the council a proper easement or grant of right-of-way having a minimum width of 10 feet sufficient in law to allow the laying and maintenance of such extension or connection. (Ord. 76-360 § 504).

13.28.140 Public sewer – Persons authorized to perform work.

Only properly licensed contractors and city forces shall be authorized to perform the work of public sewer construction within the city. All terms and conditions of the permit issued by the city to the applicant shall be binding on the contractor. (Ord. 76-360 § 505).

13.28.150 Public sewer – Compliance with street work standards.

Any person constructing a sewer within a street shall comply with all state, county, or city laws, ordinances, rules and regulations pertaining to the cutting of pavement; opening, barricading, lighting, and protecting of trenches; backfilling, and repaving and shall obtain all permits and pay all fees required by the department having jurisdiction prior to the issuance of a permit by the city. (Ord. 76-360 § 506).

13.28.160 Public sewer – Design and construction standards.

A. Minimum standards for the design and construction of sewers within the city shall be in accordance with the city of Fortuna standard improvement specifications heretofore or hereafter adopted by the city engineer, with the consent of the city council. The council may permit modifications or may require higher standards where unusual conditions are encountered.

B. Three complete sets of "as-built" drawings showing the actual location of all mains, structures, wyes, and laterals shall be filed with the city before final acceptance of the work. (Ord. 76-360 § 507).

13.28.170 Public sewer – Completion required.

Before any acceptance of any sewer line by the city and prior to the admission of any sewage into the system, the sewer line shall be tested and shall be complete and in full compliance with all requirements of the standard improvement specifications and to the satisfaction of the city engineer. (Ord. 76-360 § 508).

13.28.180 Backflow prevention device.

All new building laterals including lateral replacements shall be equipped with a cleanout riser. All new building laterals shall be also fitted with a backflow prevention device of type and materials as approved by the city. In addition, existing buildings in which the elevation of the lowest floor is less than 12 inches above the rim elevation of the nearest upstream manhole or junction structure in the reach of a city main sewer into which a building sewer, through a lateral, connects shall be prevented from backflow of sewage by installing a backflow prevention device of a type and in the manner prescribed by the city. Any such backflow prevention device shall be installed by the owner of the property on which the building is constructed, and shall be located on the building sewer between the building and the property line, preferably at the location of the cleanout. The backflow prevention device, if below grade, shall be enclosed in a suitable concrete utility box with removable cover and shall be readily accessible for inspection and maintenance. The installation of any such backflow prevention device shall be at the sole cost and expense of the property owner. The maintenance of the backflow prevention device shall be the sole obligation of the owner or the owner's successor in interest. The city shall be under no obligation to ascertain that the backflow prevention device continues in operating condition. (Ord. 2019-735 § 2 (Exh. 1)).

Chapter 13.32
SEWER USE

Sections:

13.32.010 Prohibited discharges – Uncontaminated waters.

13.32.020 Prohibited discharges – Industrial wastewater.

13.32.030 Prohibited discharges – Wastes generally.

13.32.040 Prohibited discharges – Wastes enumerated.

13.32.050 Prohibited discharges – Criteria for determining.

13.32.060 Prohibited discharges – List preparation.

13.32.070 Interceptors – Required.

13.32.080 Interceptors – Maintenance.

13.32.090 Preliminary treatment – Required for certain discharges.

13.32.100 Preliminary treatment – Maintenance of facilities.

13.32.110 Control manholes.

13.32.120 Measurements and tests.

13.32.130 Special agreements.

13.32.140 Swimming pools.

13.32.150 Dilution.

13.32.160 City's right of revision.

13.32.170 Time of compliance.

13.32.010 Prohibited discharges – Uncontaminated waters.

No person shall discharge or cause to be discharged any rainwater, stormwater, groundwater, street drainage, subsurface drainage, yard drainage, water from yard fountains, ponds, or lawn sprays, cooling water, or any other uncontaminated water into any sewerage facility which directly or indirectly discharges to facilities owned by the city. (Ord. 76-360 § 601).

13.32.020 Prohibited discharges – Industrial wastewater.

No industrial wastewaters shall be discharged to a trunk sewer or to a sewer discharging directly or indirectly to a trunk sewer until a permit for industrial wastewater discharge has been approved by the city.

A. No user shall introduce or cause to be introduced into the POTW any pollutant or wastewater which causes pass through or interference. These general prohibitions apply to all users of the POTW whether or not they are subject to categorical pretreatment standards or any other national, state, or local pretreatment standards or requirements.

B. No person shall discharge any substances directly into a manhole or other opening in a community sewer other than through an approved building sewer unless, upon a written application by the user and the payment of the applicable user charges and fees, the city issues a permit for such direct discharges. (Ord. 2019-735 § 2 (Exh. 1); Ord. 76-360 § 602).

13.32.030 Prohibited discharges – Wastes generally.

In most cases, the concentration or amount of any particular constituent which will be judged to be excessive or unreasonable cannot be foreseen but will depend on the results of technical determinations and the actions of regulatory agencies. The list of constituents which may be regulated provides specific limits only where they are now reasonably well established. The other constituents in the list are presented with the objectives of enumerating the types of wastes which will be regulated from time to time. (Ord. 76-360 § 603).

13.32.040 Prohibited discharges – Wastes enumerated.

No person shall discharge or cause to be discharged to a public sewer, which directly or indirectly connects to the city's sewerage systems, any of the following wastes:

A. Pollutants which create a fire or explosive hazard in the municipal wastewater collection and POTW, including, but not limited to, waste streams with a closed-cup flashpoint of less than 140 degrees Fahrenheit (60 degrees Celsius) using the test methods specified in 40 CFR 261.21;

B. Any wastewater having a pH less than 5.5 or more than 12.5, or otherwise causing corrosive structural damage to the POTW or equipment, or endangering city personnel;

C. Solid or viscous substances in amounts which will cause obstruction of the flow in the POTW resulting in interference, but in no case solids greater than one inch or 25.4 millimeters in any dimension;

D. Any wastewater containing pollutants, including oxygen demanding pollutants (BOD and the like), released in a discharge at a flow rate and/or pollutant concentration which, either singly or by interaction with other pollutants, will cause interference with either the POTW, or any wastewater treatment or sludge process; or which will constitute a hazard to humans or animals;

E. Any wastewater having a temperature greater than 150 degrees Fahrenheit (65.5 degrees Celsius), or which will inhibit biological activity in the treatment plant resulting in interference, but in no case wastewater which causes the temperature at the introduction into the treatment plant to exceed 104 degrees Fahrenheit (40 degrees Celsius);

F. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin, in amounts that will cause interference or pass through;

G. Any pollutants which result in the presence of toxic gases, vapors or fumes within the POTW in a quantity that may cause worker health and safety problems;

H. Any trucked or hauled pollutants, except at discharge points designated by the city in accordance with FMC 13.36.150;

I. Any noxious or malodorous liquids, gases, solids, or other wastewater which, either singly or by interaction with other wastes, are sufficient to create a public nuisance, a hazard to life, or to prevent entry into the sewers for maintenance and repair;

J. Any wastewater which imparts color which cannot be removed by the treatment process, such as, but not limited to, dye wastes and vegetable tanning solutions, which consequently imparts color to the treatment plant's effluent thereby violating the city's NPDES permit. Color (in combination with turbidity) shall not cause the treatment plant effluent to reduce the depth of the compensation point for photosynthetic activity by more than 10 percent from the seasonably established norm for aquatic life;

K. Any wastewater containing any radioactive wastes or isotopes, except as specifically approved in writing by the city manager, in compliance with applicable state or federal regulations;

L. Stormwater, surface water, groundwater, artisan well water, roof runoff, subsurface drainage, swimming pool drainage, condensate, deionized water, noncontact cooling water, and unpolluted industrial wastewater, unless specifically authorized in writing by the city manager;

M. Any sludges, screenings, or other residues from the pretreatment of industrial wastes;

N. Any medical wastes, except as specifically authorized in writing by the city manager in a wastewater discharge permit;

O. Any wastewater causing the treatment plant's effluent to fail a toxicity test;

P. Any wastes containing detergents, surface active agents, or other substances which may cause excessive foaming in the POTW;

Q. Any discharge of fats, oils, or greases of animal or vegetable origin that results in interference;

R. Any discharge of petroleum/mineral oil products that will cause interference or pass through;

S. Nonbiodegradable cutting oils, commonly called soluble oil, which form persistent water emulsions;

T. Nonbiodegradable oil, petroleum oil, or refined petroleum products;

U. Dispersed biodegradable oils and fats, such as lard, tallow, or vegetable oil, in excessive concentrations that would tend to cause adverse effects on the sewerage system;

V. Waste with an excessively high concentration of cyanide;

W. Unreasonably large amounts of undissolved or dissolved solids;

X. Wastes requiring an excessive quantity of chlorine or other chemical compound used for disinfection purposes;

Y. Excessive amounts of chlorinated hydrocarbon or organic phosphorus-type compounds;

Z. Excessive amounts of deionized water, steam condensate or distilled water;

AA. Wastes containing substances that may precipitate, solidify, or become viscous at temperatures between 50 and 100 degrees Fahrenheit;

BB. Garbage or wastes that are not ground sufficiently to pass through a three-eighths-inch screen;

CC. Wastes containing excessive quantities of iron, boron, chromium, phenol, plastic resins, copper, nickel, zinc, lead, mercury, cadmium, selenium, arsenic or any other objectionable materials toxic to humans, animals, the local environment or to biological or other wastewater treatment processes;

DD. Blow-down or bleed water from cooling towers or other evaporative coolers exceeding one-third of the makeup water; and

EE. Septic tank wastes.

Wastes prohibited by this section shall not be processed or stored in such a manner that they could be discharged to the POTW. All floor drains located in process or materials storage areas must discharge to the industrial user's pretreatment facility before connecting with the POTW. (Ord. 2019-735 § 2 (Exh. 1); Ord. 76-360 § 603).

13.32.050 Prohibited discharges – Criteria for determining.

No person shall discharge or cause to be discharged to any public sewer which directly or indirectly connects to the city's sewerage system any wastes if, in the opinion of the city engineer such wastes may

have an adverse or harmful effect on sewers, maintenance personnel, wastewater treatment plant personnel or equipment, treatment plant effluent quality, public or private property, or may otherwise endanger the public, the local environment or create public nuisance. The city engineer, in determining the acceptability of specific wastes, shall consider the nature of the waste and the adequacy and nature of the collection, treatment and disposal system available to accept the waste. (Ord. 76-360 § 603).

13.32.060 Prohibited discharges – List preparation.

The city engineer shall from time to time prepare a list of the maximum permissible quantities or concentrations of certain constituents in industrial wastewater flows and otherwise issue detailed directions for meeting the requirements of this chapter. (Ord. 76-360 § 603).

13.32.070 Interceptors – Required.

Grease, oil and sand interceptors shall be provided when, in the opinion of the public works director or the city engineer, they are necessary for the proper handling of wastewater containing excessive amounts of grease and oil, or sand; except that such interceptors shall not be required for residential users. All interception units shall be of type and capacity approved by the public works director or city engineer and shall be so located to be easily accessible for cleaning and inspection. All interception units shall be installed in accordance with the provisions of this chapter. Such interceptors shall be inspected, cleaned, and repaired regularly, as needed, by the owner at their sole expense. New and existing users that are determined by the public works director or city engineer to have a reasonable potential to adversely impact the POTW shall install a grease interceptor.

A. Users that are required to have a grease interceptor may be required to connect fixtures or drains that have a reasonable potential to allow fats, oils, and grease to be discharged to the POTW to an appropriately sized grease interceptor.

B. Users with garbage grinders shall discharge the garbage grinder to a grease interceptor with a minimum capacity of 1,000 gallons or remove the garbage grinder.

C. Users with dishwashers shall discharge the dishwasher directly to the POTW or to a grease interceptor with a minimum capacity of 750 gallons.

D. Accumulated grease and sediment shall be removed as required. At a minimum gravity grease interceptors and grease traps shall be cleaned when the combined depth of sediment and grease equals or exceeds 25 percent of the total depth of the sediment, water, and grease. For multiple chambered interceptors the measurements of sediment and grease are to be performed in the final interceptor chamber prior to discharge. All other grease interceptors shall be maintained in accordance with the manufacturer’s specifications.

E. Grease interceptors shall be kept free of nonfood waste including, but not limited to, grit, rocks, gravel, sand, eating utensils, cigarettes, trash, towels, and rags.

F. The addition of chemicals, enzymes, emulsifiers, live bacteria or other grease cutters or additives used for purposes of grease reduction to a grease interceptor is specifically prohibited.

G. If the public works director or city engineer determines that a grease interceptor is not being adequately cleaned or maintained, a correction notice may be issued requiring the deficiency be corrected within seven working days. Maintenance programs including BMPs and defined cleaning frequencies may be mandated. Users that fail to adhere to a maintenance program may be required to install additional pretreatment devices.

H. The city will develop and implement a fats, oils, and grease policy. (Ord. 2019-735 § 2 (Exh. 1); Ord. 76-360 § 604).

13.32.080 Interceptors – Maintenance.

All grease, oil and sand interceptors shall be maintained by the owner, at his expense, in continuously efficient operation at all times.

A. Accumulated grease and sediment shall be removed as required. At a minimum gravity grease interceptors and grease traps shall be cleaned when the combined depth of sediment and grease equals or exceeds 25 percent of the total depth of the sediment, water, and grease. For multiple chambered interceptors the measurements of sediment and grease are to be performed in the final interceptor chamber prior to discharge. All other grease interceptors shall be maintained in accordance with the manufacturer's specifications.

B. Grease interceptors shall be kept free of nonfood waste including, but not limited to, grit, rocks, gravel, sand, eating utensils, cigarettes, trash, towels, and rags.

C. The addition of chemicals, enzymes, emulsifiers, live bacteria or other grease cutters or additives used for purposes of grease reduction to a grease interceptor is specifically prohibited.

D. If the public works director or city engineer determines that a grease interceptor is not being adequately cleaned or maintained, a correction notice may be issued requiring the deficiency be corrected within seven working days. Maintenance programs including BMPs and defined cleaning frequencies may be mandated. Users that fail to adhere to a maintenance program may be required to install additional pretreatment devices. (Ord. 2019-735 § 2 (Exh. 1); Ord. 76-360 § 605).

13.32.090 Preliminary treatment – Required for certain discharges.

A. The admission into the public sewers of any waters or wastes having any of the following characteristics shall be subject to the review and approval of the director of public works:

1. Five-day biochemical oxygen demand greater than 250 milligrams per liter; or

2. Containing more than 250 milligrams per liter of suspended solids; or

3. Containing any quantity of substance having the characteristics described in FMC 13.32.030 through 13.32.060; or

4. Having an average daily flow greater than two percent of the average daily flow of the city.

B. Where necessary, in the opinion of the director of public works, the owner shall provide, at his expense, such preliminary treatment as may be necessary to:

1. Reduce the biochemical oxygen demand to 300 milligrams per liter and the suspended solids to 350 milligrams per liter; or

2. Reduce objectionable characteristics or constituents to within the maximum limits provided for in FMC 13.32.030 through 13.32.060; or

3. Control the quantities and rates of discharge of such waters or wastes.

C. Plans, specifications, and any other pertinent information relating to proposed preliminary treatment facilities shall be submitted for the approval of the city engineer and no construction of such facilities shall be commenced until the approvals are obtained in writing. (Ord. 76-360 § 606).

13.32.100 Preliminary treatment – Maintenance of facilities.

Where required by the city, preliminary treatment facilities for any waters or wastes shall be maintained continuously in satisfactory and effective operation by the owner at his expense and to the satisfaction of the city. (Ord. 76-360 § 607).

13.32.110 Control manholes.

When required by the city, the owner of any property served by the side sewer carrying industrial wastes shall install a suitable control manhole in the side sewer to facilitate observation, sampling, and measurement of wastes. Such manhole, when required, shall be accessible and safely located, and shall be constructed in accordance with plans approved by the city engineer. The manhole shall be installed by the owner at his expense, and shall be maintained by him so as to be safe and accessible at all times. (Ord. 76-360 § 608).

13.32.120 Measurements and tests.

All measurements, tests, and analyses of the characteristics of waters and wastes to which reference is made in FMC 13.32.030 through 13.32.060 and FMC 13.32.090 shall be determined in accordance with standard methods and shall be determined at the control manhole provided for in FMC 13.32.110, or upon suitable samples taken at the control manhole. In the event that no special manhole has been required, the control manhole shall be considered to be the nearest downstream manhole in the public sewer to the point at which the side sewer is connected. (Ord. 76-360 § 609).

13.32.130 Special agreements.

No statement contained in this chapter shall be construed as preventing any special agreement or arrangement between the city and any industrial concern whereby an industrial waste of unusual strength or character may be accepted by the city for treatment subject to payment therefor by the industrial concern and subject to such terms and conditions as might be required by city. (Ord. 76-360 § 610).

13.32.140 Swimming pools.

It shall be unlawful for any person to discharge the contents of a swimming pool into a sanitary sewer without prior approval of the city manager. (Ord. 2019-735 § 2 (Exh. 1); Ord. 76-360 § 611).

13.32.150 Dilution.

No industrial user or wastewater hauler shall ever increase the use of process water, or in any way attempt to dilute a discharge, as a partial or complete substitute for adequate treatment to achieve compliance with a discharge limitation, unless expressly authorized by an applicable pretreatment standard or requirement. The city manager may impose mass limitations on industrial users which are using dilution to meet applicable pretreatment standards or requirements or in other cases when the imposition of mass limitations is appropriate. (Ord. 2019-735 § 2 (Exh. 1)).

13.32.160 City's right of revision.

The city reserves the right to enter into special written agreements with industrial users setting out special terms under which they may discharge to the POTW. In no case will a special agreement waive compliance with a pretreatment standard or requirement. However, the industrial user may request a net gross adjustment to a categorical standard in accordance with 40 CFR 403.15. They may also request a variance from the categorical pretreatment standard from EPA. Such a request will be approved only if the industrial user can prove that factors relating to its discharge are fundamentally different from the factors considered by EPA when establishing that pretreatment standard. An industrial user requesting a fundamentally different factor variance must comply with the procedural and substantive provisions in 40 CFR 403.13.

A. Users with garbage grinders shall discharge the garbage grinder to a grease interceptor with a minimum capacity of 1,000 gallons or remove the garbage grinder.

B. Users with dishwashers shall discharge the dishwasher directly to the POTW or to a grease interceptor with a minimum capacity of 750 gallons. (Ord. 2019-735 § 2 (Exh. 1)).

13.32.170 Time of compliance.

All commercial facilities and food establishments that are required to have a sand and/or grease interceptor or grease trap according to FMC 13.32.070 shall be required to install a sand and/or grease interceptor or grease trap within the 60-day period after the first occurrence of any of the following events:

A. Transfer of any ownership or interest in the commercial facility;

B. The issuance of any building permit for the construction, reconstruction or related work to be performed on the premises costing more than $5,000;

C. The backup or discharge of raw sewage on or from the premises due to grease build up in their service lateral; or

D. Ninety days after receiving written notice from the city manager of the necessity for installation of such facilities. (Ord. 2019-735 § 2 (Exh. 1)).

Chapter 13.36
INDUSTRIAL WASTEWATER

Sections:

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13.36.010 Permit – Required – Restrictions.

A. No person shall discharge or cause to be discharged any industrial wastewaters directly or indirectly to sewerage facilities owned by the city without first obtaining a city permit for industrial wastewater discharge.

B. The permit for industrial wastewater discharge may require pretreatment of industrial wastewaters before discharge, restriction of peak flow discharges, discharge of certain wastewaters only to specified sewers of the city, relocation of point of discharge, prohibition of discharge of certain wastewater components, restriction of discharge to certain hours of the day, payment of additional charges to defray increased costs of the city created by the wastewater discharge, and such other conditions as may be required to effect the purpose of this division.

C. No city permit for industrial wastewater discharge is transferable without the prior written consent of the city.

D. No person shall discharge industrial wastewaters in excess of the quantity or quality limitations set by the permit for industrial wastewater discharge. (Ord. 76-360 § 701).

13.36.020 Permit – Application.

A. Contents. All industrial users required to have a wastewater discharge permit must submit a completed wastewater discharge permit application. The city manager shall approve a form to be used as a permit application. Incomplete or inaccurate applications will not be processed and will be returned to the industrial user for revision.

B. Application Signatories and Certification. All wastewater discharge permit applications and industrial user reports must contain the following certification statement and be signed by an authorized representative of the industrial user:

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

C. Misleading, Incomplete or False Information. Any application submitted with information that is at any time determined to be materially misleading, incomplete or false may result in termination of the permit,

disconnection of service, penalties under this chapter, as well as any other remedies provided by law. (Ord. 2019-735 § 2 (Exh. 1); Ord. 76-360 § 702).

13.36.030 Permit changes and restrictions.

The city may change the restrictions or conditions of a permit for industrial wastewater discharge from time to time as circumstances may require. The city shall allow an industrial discharger a reasonable period of time to comply with any changes in the industrial wastewater permit required by the city.

A. The city manager may modify the wastewater discharge permit with good cause including, but not limited to, the following:

1. To incorporate any new or revised federal, state, or local pretreatment standards or requirements;

2. To address significant alterations or additions to the industrial user's operation, processes, or wastewater volume or character since the time of wastewater discharge permit issuance;

3. To address changes in the POTW that require either a temporary or permanent reduction or elimination of the authorized discharge;

4. To address information indicating that permitted discharge poses a threat to the city's POTW, city personnel, or the receiving waters;

5. For a violation of any terms or conditions of the wastewater discharge permit;

6. For misrepresentations or failure to fully disclose all relevant facts in the wastewater discharge permit application or in any required reporting;

7. To address revision of or a grant of variance from categorical pretreatment standards pursuant to 40 CFR 403.13; and

8. To correct typographical or other errors in the wastewater discharge permit.

B. The filing of a request by the permittee for a wastewater discharge permit modification does not stay any wastewater discharge permit condition. (Ord. 2019-735 § 2 (Exh. 1); Ord. 76-360 § 703).

13.36.040 Permit – Suspension.

A. The director of public works may suspend a permit for industrial wastewater discharge for a period of not to exceed 45 days when such suspension is necessary in order to stop a discharge which presents an

imminent hazard to the public health, safety or welfare, to the local environment or to the city's sewerage system.

B. Any discharger notified of a suspension of his industrial wastewater permit shall immediately cease and desist the discharge of all industrial wastewater to the sewerage system. In the event of a failure of the discharger to comply voluntarily with the order, the director of public works shall take such steps as are reasonably necessary to ensure compliance.

C. The director of public works shall reinstate the industrial wastewater permit upon proof of satisfactory compliance with all discharge requirements of the city. (Ord. 76-360 § 704).

13.36.050 Permit – Revocation.

A. Wastewater discharge permits may be revoked for the following reasons:

1. Failure to notify the city of significant changes to the wastewater prior to the changed discharge;

2. Failure to provide notification to the city of changed condition pursuant to FMC 13.36.250;

3. Misrepresentation or failure to fully disclose all relevant facts in the wastewater discharge permit application;

4. Falsifying self-monitoring reports;

5. Tampering with monitoring equipment;

6. Refusing to allow the city timely access to the facility premises and records;

7. Failure to meet effluent limitations;

8. Failure to pay fines;

9. Failure to pay sewer charges;

10. Failure to meet compliance schedules;

11. Failure to complete a wastewater survey or the wastewater discharge permit application; and

12. Violation of any pretreatment standard or requirement, or any terms of the wastewater discharge permit or the ordinance.

B. Wastewater discharge permits shall be voidable upon nonuse, cessation of operations, or transfer of business ownership. All wastewater discharge permits are void upon the issuance of a new wastewater discharge permit. (Ord. 2019-735 § 2 (Exh. 1); Ord. 76-360 § 705).

13.36.060 Availability of city facilities.

If sewerage capacity is not available, the city may require the industrial wastewater discharger to restrict his discharge until sufficient capacity can be made available. When requested, the city will advise persons desiring to locate new facilities as to the areas where industrial wastewater of their proposed quantity and quality can be received by available sewerage facilities. The city may refuse service to persons locating facilities in areas where their proposed quantity or quality of industrial wastewater is unacceptable in the available treatment facility. (Ord. 76-360 § 707).

13.36.070 Prohibited industrial waste discharges.

A. Requirement.

1. It shall be unlawful for any significant industrial user to discharge wastewater into the city's POTW without first obtaining a wastewater discharge permit from the city manager. Any violation of the terms and conditions of a wastewater discharge permit shall be deemed a violation of this chapter and subjects the wastewater discharge permittee to the enforcement actions set out in this chapter. Obtaining a wastewater discharge permit does not relieve a permittee of their obligation to comply with all federal and state pretreatment standards or requirements or with any other requirements of federal, state, and local law.

2. The city manager may require other industrial users, including liquid waste haulers, to obtain wastewater discharge permits as necessary to carry out the purposes of this chapter.

B. Existing Connections. Any significant industrial user which discharges industrial waste into the POTW prior to the effective date of this chapter and who wishes to continue such discharges in the future shall, within 45 days after said date, apply to the city for a wastewater discharge permit in accordance with FMC 13.36.020, and shall not cause or allow discharges to the POTW to continue after 90 days of the effective date of the ordinance codified in this chapter except in accordance with a wastewater discharge permit issued by the city.

C. New Connections. Any significant industrial user proposing to begin or recommence discharging industrial wastes into the POTW must obtain a wastewater discharge permit prior to discharging. An application for this wastewater discharge permit must be filed at least 45 days prior to the date upon which any discharge will begin.

D. Extra Jurisdictional Industrial Users. The city may enter into an agreement with the neighboring jurisdiction in which the significant industrial user is located to provide for the implementation and enforcement of pretreatment program requirements against said industrial user.

E. Zero discharge permit may be issued to industrial users generating process wastewaters who would normally be subject to either FMC 13.36.180 or subject to categorical pretreatment standards under 40 CFR Section 403.6 and 40 CFR Chapter I, Subpart N, but are not discharging said waste stream(s) to the system. Zero discharge permit holders are subject to all applicable regulations under federal, state, local, or laws. Pursuant to this chapter, a statement of zero discharge must be submitted to the city annually. (Ord. 2019-735 § 2 (Exh. 1); Ord. 76-360 § 706).

13.36.080 Pretreatment of industrial wastewaters.

A. Whenever deemed necessary, the city manager may require industrial users to restrict their discharge during peak flow periods, designate that certain wastewater be discharged only into specific sewers, relocate and/or consolidate points of discharge, separate sewage waste streams from industrial waste streams, and such other conditions as may be necessary to protect the POTW and determine the industrial user's compliance with the requirements of this chapter.

B. All pretreatment systems or devices shall be approved by the city engineer but such approval shall not absolve the industrial discharger of the responsibility of meeting any industrial effluent limitation required by the city. All pretreatment systems judged by the city engineer to require engineering design shall have plans prepared and signed by an engineer of suitable discipline licensed in the state.

C. Normally, a gravity separation interceptor, equalizing tank, neutralization chamber and control manhole will be required, respectively, to remove prohibited settleable and clotable solids, to equalize wastewater streams varying greatly in quantity and/or quality, to neutralize low or high pH flows, and to facilitate inspection, flow measurement and sampling.

D. Floor drains from commercial or manufacturing buildings, warehouses or multiuse structures shall not discharge directly to the sewer, but shall first discharge to a gravity separation interceptor.

E. Each user discharging into the POTW greater than 100,000 gallons per day shall install and maintain, on his property and at his expense, a suitable storage and flow control facility to insure equalization of flow over a 24-hour period.

F. Industrial users with the potential to discharge flammable substances may be required to install and maintain an approved combustible gas detection meter.

G. At no time shall any reading on a properly calibrated combustible gas detector at the point of discharge into the POTW, or at any point in the POTW, be more than 20 percent of the lower explosive limit (LEL) of the meter. (Ord. 2019-735 § 2, 2019; Ord. 76-360 § 708).

13.36.090 Control manhole and separation of domestic and industrial wastewaters.

A. All domestic or sanitary wastewaters from restrooms, showers, drinking fountains, etc., shall be kept separate from all industrial wastewaters until the industrial wastewaters have passed through any required pretreatment system or device.

B. A control manhole of a design approved by the city engineer shall be furnished and installed by certain designated industrial wastewater dischargers to facilitate inspection, sampling and flow measurements by personnel of the city. This control manhole shall be located off the industrial premises or, if within the plant fence, a special locked gate adjacent to the manhole and at a location approved by the city shall be provided, with keys to the gate lock given to the city. Unrestricted access to this control manhole shall be available to authorized personnel of the city at all times. The control manhole may be used as a junction manhole for domestic sewage and industrial wastes provided the junction occurs downstream of the sampling or flow measuring point. (Ord. 76-360 § 709).

13.36.100 Industrial wastewater sampling, analysis and flow measurements.

A. Periodic measurements of flow rates, flow volumes, COD, and suspended solids for use in determining the annual industrial wastewater treatment charge and such measurements of other constituents believed necessary by the city engineer shall be made by all industrial wastewater dischargers unless specifically relieved of such obligation by the city engineer.

B. All wastewater analyses shall be conducted in accordance with the appropriate procedure contained in “standard methods.” If no appropriate procedure is contained therein, the standard procedure of the industry or a procedure judged satisfactory by the city engineer shall be used to measure wastewater constituents.

C. Within either 180 days after the effective date of a categorical pretreatment standard, or the final administrative decision on a category determined under 40 CFR 403.6(a)(4), whichever is later, existing significant industrial users subject to such categorical pretreatment standards, and currently discharging to or scheduled to discharge to the POTW, shall be required to submit to the city a report which contains the information listed in subsection (B) of this section. At least 90 days prior to commencement of their discharge, new sources, and sources that become industrial users subsequent to the promulgation of an applicable categorical standard, shall be required to submit to the city a report which contains the information listed in subsection (B) of this section. A new source shall also be required to report the

method of pretreatment it intends to use to meet applicable pretreatment standards. A new source shall also give estimates of its anticipated flow and quantity of pollutants discharged.

D. The industrial user shall submit the information required by this section including:

1. Identifying Information. The name and address of the facility including the name of the operator and owners.

2. Wastewater Discharge Permits. A list of any environmental control wastewater discharge permits held by or for the facility.

3. Description of Operations. A brief description of the nature, average rate of production, and standard industrial classifications of the operation(s) carried out by such industrial user. This description should include a schematic process diagram, which indicates points of discharge to the POTW from the regulated processes.

4. Flow Measurement. Information showing the measured average daily and maximum daily flow, in gallons per day, to the POTW from regulated process streams and other streams, as necessary, to allow use of the combined waste stream formula set out in 40 CFR 403.6(e).

5. Measurement of Pollutants.

a. Identify the categorical pretreatment standards applicable to each regulated process.

b. Submit the results of sampling and analysis identifying the nature and concentration (and/or mass where required by the standard or by the city) of regulated pollutants in the discharge from each regulated process. Instantaneous, daily maximum and long-term average concentrations (or mass, where required) shall be reported. The sample shall be representative of daily operation and shall be analyzed in accordance with procedures set out in FMC 13.36.300.

c. Sampling must be performed in accordance with procedures set out in this section.

6. Certification. A statement reviewed by the industrial user's authorized representative and certified by a qualified professional, indicating whether pretreatment standards are being met on a consistent basis and, if not, whether additional operation and maintenance (O&M) and/or additional pretreatment is required to meet the pretreatment standards and requirements.

7. Compliance Schedule. If additional pretreatment and/or O&M will be required to meet the pretreatment standards, the shortest schedule by which the industrial user will provide such additional pretreatment and/or O&M. The completion date in this schedule shall not be later than the compliance date established for the applicable pretreatment standard. A compliance schedule pursuant to this section must meet the requirements set out in FMC 13.36.200, and be signed by an authorized representative as defined in FMC 13.24.320.

8. Signature and Certification. All baseline monitoring reports must be signed and certified in accordance with this chapter.

E. Sample Collection.

1. Except as indicated in subsections (E)(2) and (3) of this section, the industrial user must collect wastewater samples using 24-hour flow-proportional composite sampling techniques, unless time-proportional composite sampling or grab sampling is authorized by the city manager. Where time-proportional composite sampling or grab sampling is authorized by the city, the samples must be representative of the discharge. Using protocols (including appropriate preservation) specified in 40 CFR Part 136 and appropriate EPA guidance, multiple grab samples collected during a 24-hour period may be composited prior to the analysis as follows: for cyanide, total phenols, and sulfides the samples may be composited in the laboratory or in the field; for volatile organics and oil and grease, the samples may be composited in the laboratory. Composite samples for other parameters unaffected by the compositing procedures as documented in approved EPA methodologies may be authorized by the city, as appropriate. In addition, grab samples may be required to show compliance with instantaneous limits.

2. Samples for oil and grease, temperature, pH, cyanide, phenols, toxicity, sulfides, and volatile organic chemicals must be obtained using grab collection techniques.

3. For sampling required in support of baseline monitoring and 90-day compliance reports required in FMC 13.36.220 and 13.36.230, a minimum of four grab samples must be collected for pH, cyanide, total phenols, oil and grease, sulfide and volatile organic compounds for facilities for which historical sampling data do not exist; for facilities for which historical sampling data are available, the city manager may authorize a lower minimum. For the reports required by FMC 13.36.240 the industrial user is required to collect the number of grab samples necessary to assess and assure compliance with applicable pretreatment standards and requirements.

F. Determination of Noncompliance. The city manager may use grab samples to determine noncompliance with pretreatment standards. (Ord. 2019-735 § 2 (Exh. 1); Ord. 76-360 § 710).

13.36.110 Damage caused by prohibited wastewater discharge.

Any industrial wastewater discharger who discharges or causes the discharge of prohibited wastewaters which cause damage to city facilities, detrimental effects on treatment processes, or any other damages resulting in costs to the city shall be liable to the city for all damages occasioned thereby. (Ord. 76-360 § 711).

13.36.120 Pretreatment facilities.

Industrial users shall provide necessary wastewater treatment as required to comply with this chapter and shall achieve compliance with all categorical pretreatment standards, local limits and the prohibitions set out in this chapter within the time limitations specified by the EPA, the state, or the city manager, whichever is more stringent. Any facilities required to pretreat wastewater to a level acceptable to the city shall be provided, operated, and maintained at the industrial user's expense. Detailed plans showing the pretreatment facilities and operating procedure shall be submitted to the city for review, and must be approved by the city before construction of the facility. The review of such plans and operating procedures will in no way relieve the industrial user from the responsibility of modifying the facility as necessary to produce an acceptable discharge to the city under the provisions of this chapter. (Ord. 2019-735 § 2 (Exh. 1)).

13.36.130 Accidental discharge/slug control plans.

The city manager may require any industrial user to develop and implement an accidental discharge/slug control plan. At least once every two years the city manager shall evaluate whether each significant industrial user needs such a plan. Any industrial user required to develop and implement an accidental discharge/slug control plan shall submit a plan, which provides at a minimum the following:

A. Description of discharge practices including nonroutine batch discharges.

B. Description of stored chemicals.

C. Procedures for immediately notifying the POTW of any accidental or slug discharge. Such notification must also be given for any discharge which would violate any of the prohibited discharges in FMC 13.32.020 through 13.32.150.

D. Procedures to prevent adverse impact from any accidental or slug discharge. Such procedures include, but are not limited to, inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site runoff, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and/or measures and equipment for emergency response.

E. Procedures for immediately notifying the POTW of any changes affecting the potential for a slug discharge. (Ord. 2019-735 § 2 (Exh. 1)).

13.36.140 Tenant responsibility.

Where an owner of property lets premises to any other person as a tenant, if either the owner or the tenant is a commercial or industrial user, either or both may be held responsible for compliance with the provisions of this chapter. This provision is enforceable against the owner, the tenant or both, without regard to any contractual arrangements between the owner and tenant. (Ord. 2019-735 § 2 (Exh. 1)).

13.36.150 Hauled wastewater.

A. Septic tank waste of residential origin may be accepted into the POTW at a designated receiving structure within the treatment plant area, and at such times as are established by the city manager, provided such wastes do not violate the provisions of this chapter or any other requirements established or adopted by the city. Wastewater discharge permits for individual vehicles to use such facilities shall be issued by, and at the discretion of, the city manager, based on the interests and purposes to be served under this chapter.

B. The discharge of hauled industrial wastes is prohibited without prior approval and a wastewater discharge permit from the city.

C. Fees for dumping septage will be established as part of the industrial user fee system as authorized in this chapter. (Ord. 2019-735 § 2 (Exh. 1)).

13.36.160 Federal categorical pretreatment standards.

The National Categorical Pretreatment Standards found in 40 CFR Chapter I, Subchapter N, Parts 405-471, are hereby incorporated by reference. (Ord. 2019-735 § 2 (Exh. 1)).

13.36.170 Waste survey.

When requested by the city manager, all industrial users must submit information on the nature and characteristics of their wastewater by completing a wastewater survey prior to commencing their discharge. The city manager is authorized to prepare a form for this purpose and may periodically require industrial users to update the survey. Failure to complete this survey shall be reasonable grounds for terminating service to the industrial user and shall be considered a violation of this chapter, or for imposing penalties as set out in FMC 13.60.180. (Ord. 2019-735 § 2 (Exh. 1)).

13.36.180 Wastewater discharge permit decisions.

The city manager will evaluate the data furnished by the industrial user and may require additional information. Within 45 days of receipt of a completed wastewater discharge permit application, the city

manager will determine whether or not to issue a wastewater discharge permit and will notify the industrial user. (Ord. 2019-735 § 2 (Exh. 1)).

13.36.190 Duration of permit – Reissuance.

A. Wastewater discharge permits shall be issued for a specified time period, not to exceed five years, at the discretion of the city manager. Each wastewater discharge permit will indicate a specific date upon which it will expire.

B. A significant industrial user shall apply for wastewater discharge permit reissuance by submitting a complete wastewater discharge permit application in accordance with this chapter a minimum of 45 days prior to the expiration of the industrial user's existing wastewater discharge permit. (Ord. 2019-735 § 2 (Exh. 1)).

13.36.200 Permit contents.

Wastewater discharge permits shall include such conditions as are reasonably deemed necessary by the city manager to prevent pass through or interference, protect the quality of the water body receiving the treatment plant's effluent, protect worker health and safety, facilitate sludge management and disposal, protect ambient air quality, and protect against damage to the POTW.

A. Wastewater discharge permits shall contain the following conditions:

1. A statement that indicates wastewater discharge permit duration, which in no event shall exceed five years.

2. A statement that the wastewater discharge permit is nontransferable.

3. Effluent limits applicable to the user based on applicable standards in federal, state, and local law.

4. Self-monitoring, sampling, reporting, notification, and recordkeeping requirements. These requirements shall include an identification of pollutants to be monitored, sampling location, sampling frequency, and sample type based on federal, state, or local law.

5. Statement of applicable civil, criminal, and administrative penalties for violation of pretreatment standards and requirements, and any applicable compliance schedule. Such schedule may not extend the time for compliance beyond that required by applicable federal, state, or local law.

6. Requirements to control slug discharges, if determined by the POTW to be necessary.

7. Wastewater discharge permits may contain, but need not be limited to, the following:

a. Limits on the average and/or maximum rate of discharge, time of discharge, and/or requirements for flow regulation and equalization.

b. Limits on instantaneous, daily and monthly average and/or maximum concentration, mass, or other measure of identified wastewater pollutants or properties.

c. Requirements for the installation of pretreatment technology, pollution control, or construction of appropriate containment devices, designed to reduce, eliminate, or prevent the introduction of pollutants into the treatment works.

d. Development and implementation of spill control plans or other special conditions including management practices necessary to adequately prevent accidental, unanticipated, or routine discharges.

e. Development and implementation of waste minimization plans to reduce the amount of pollutants discharged to the POTW.

f. The unit charge or schedule of industrial user charges and fees for the management of the wastewater discharged to the POTW.

g. Requirements for installation and maintenance of inspection and sampling facilities and equipment.

h. A statement that compliance with the wastewater discharge permit does not relieve the permittee of responsibility for compliance with all applicable federal and state pretreatment standards, including those which become effective during the term of the wastewater discharge permit.

i. Other conditions as deemed appropriate by the city manager to ensure compliance with this chapter, and state and federal laws, rules, and regulations. (Ord. 2019-735 § 2 (Exh. 1)).

13.36.210 Appeals.

Any person, including the industrial user, may petition the city to reconsider the terms of a wastewater discharge permit within 10 days of its issuance.

A. Failure to submit a timely petition for review shall be deemed to be a waiver of the administrative appeal.

B. In its petition, the appealing party must indicate the wastewater discharge permit provisions objected to, the reason for the objection, and the alternative condition, if any, it seeks to place in the wastewater discharge permit.

C. The effectiveness of the wastewater discharge permit shall not be stayed pending the appeal process.

D. The city shall inform the discharger of their decision within 30 days of a request for reconsideration.

E. If the ruling made by the city manager is unsatisfactory to the person requesting reconsideration, they may, within 10 days after notification of such city action, file a written appeal to the council. The written appeal shall be heard by the council within 30 days after the date of filing. The council shall make a final ruling on the appeal within 10 days after the close of the meeting. (Ord. 2019-735 § 2 (Exh. 1)).

13.36.220 Compliance schedule progress report.

The following conditions shall apply to the schedule required by FMC 13.36.100. The schedule shall contain progress increments in the form of dates for the commencement and completion of major events leading to the construction and operation of additional pretreatment required for the user to meet the applicable pretreatment standards (such events include hiring an engineer, completing preliminary and final plans, executing contracts for major components, commencing and completing construction, beginning and conducting routine operation). No increment referred to above shall exceed nine months. The industrial user shall submit a progress report to the city manager no later than 14 days following each date in the schedule and the final date of compliance. The report shall include, at a minimum, whether or not it complied with the increment of progress, the reason for any delay, and (if appropriate) the steps being taken by the industrial user to return to the established schedule. In no event shall more than nine months elapse between such progress reports to the city manager. (Ord. 2019-735 § 2 (Exh. 1)).

13.36.230 Report on compliance with categorical pretreatment standard deadline.

Within 90 days following the date for final compliance with applicable categorical pretreatment standards, or in the case of a new source following commencement of the introduction of wastewater into the POTW, any industrial user subject to such pretreatment standards and requirements shall submit to the city a report containing the information described in FMC 13.36.100(D)(4) and (5). For industrial users subject to equivalent mass or concentration limits established in accordance with the procedures in 40 CFR 403.6(c), this report shall contain a reasonable measure of the industrial user's long-term production rate. For all other industrial users subject to categorical pretreatment standards expressed in terms of allowable pollutant discharge per unit of production (or other measure of operation), this report shall include the industrial user's actual production during the appropriate sampling period. All compliance reports must be signed and certified in accordance with FMC 13.36.100(D). (Ord. 2019-735 § 2 (Exh. 1)).

13.36.240 Periodic compliance reports.

A. Any significant industrial user subject to a pretreatment standard shall, at a frequency determined by the city manager, but in no case less than twice per year (in June and December), submit a report indicating the nature and concentration of pollutants in the discharge which are limited by such pretreatment standards and the measured or estimated average and maximum daily flows for the reporting period. All periodic compliance reports must be signed and certified in accordance with FMC 13.36.020(B).

B. All wastewater samples must be representative of the industrial user's discharge. Wastewater monitoring and flow measurement facilities shall be properly operated, kept clean, and maintained in good working order at all times. The failure of an industrial user to keep its monitoring facility in good working order shall not be grounds for the industrial user to claim that sample results are unrepresentative of its discharge.

C. If an industrial user subject to the reporting requirement in and of this section monitors any pollutant more frequently than required by the POTW, using the procedure prescribed in FMC 13.36.100(E), the results of this monitoring shall be included in the report. (Ord. 2019-735 § 2 (Exh. 1)).

13.36.250 Reports of changed conditions.

Each industrial user is required to notify the city manager of any planned significant changes to the industrial user's operations or system which might alter the nature, quality or volume of its wastewater at least 45 days before the change.

A. The city manager may require the industrial user to submit such information as may be deemed necessary to evaluate the changed condition, including the submission of a wastewater discharge permit application.

B. No industrial user shall implement the planned changed conditions until and unless the city manager has responded to the industrial user's notice.

C. For purposes of this requirement, flow increases of 10 percent or greater, and the discharge of any previously unreported pollutants, shall be deemed significant. (Ord. 2019-735 § 2 (Exh. 1)).

13.36.260 Reports of potential problems.

A. In the case of any discharge including, but not limited to, accidental discharge of nonroutine, episodic nature, a noncustomary batch discharge, or a slug load which may cause potential problems for the POTW (including a violation of the prohibited discharge standards of this chapter), it is the responsibility of the industrial user to immediately telephone and notify the city of the incident. This notification shall

include the location of discharge, type of waste, concentration and volume, if known, and corrective action taken by the industrial user.

B. Within five days following such discharge, the industrial user shall, unless waived by the city manager, submit a detailed written report describing the causes of the discharge and the measures to be taken by the industrial user to prevent similar future occurrences. Such notification shall not relieve the industrial user of any expense, loss, damage, or other liability which may be incurred as a result of damage to the POTW, natural resources, or any other damage to person or property; nor shall such notification relieve the industrial user of any fines, civil penalties, or other liability which may be imposed by this chapter.

C. Failure to notify the city of potential problem discharges shall be deemed a separate violation of this chapter.

D. A notice shall be permanently posted on the industrial user's bulletin board or other prominent place advising employees who to call in the event of a discharge described in subsection (A) of this section. Employers shall ensure that all employees, who may cause or suffer such a discharge to occur, are advised of the emergency notification procedure. (Ord. 2019-735 § 2 (Exh. 1)).

13.36.270 Reports from nonsignificant industrial users.

All industrial users not subject to categorical pretreatment standards and not required to obtain a wastewater discharge permit shall provide appropriate reports to the city as the city manager may require. (Ord. 2019-735 § 2 (Exh. 1)).

13.36.280 Notice of violation – Repeat sampling and reporting.

If sampling performed by an industrial user indicates a violation, the industrial user must notify the city within 24 hours of becoming aware of the violation. The industrial user shall also repeat the sampling and analysis and submit the results of the repeat analysis to the city within 30 days after becoming aware of the violation. The industrial user is not required to resample if the POTW performs monitoring at the industrial user's facility at least once a month, or if the POTW performs sampling between the industrial user's initial sampling and when the industrial user receives the results of the sampling. (Ord. 2019-735 § 2 (Exh. 1)).

13.36.290 Notification of the discharge of hazardous waste.

A. Any industrial user who commences the discharge of hazardous waste shall notify the POTW, the EPA Regional Waste Management Division Director, and state hazardous waste authorities in writing of any discharge into the POTW of a substance which, if otherwise disposed of, would be a hazardous waste under 40 CFR Part 261. Such notification must include the names of the hazardous waste as set forth in 40 CFR Part 261, the EPA hazardous waste number, and the type of discharge (continuous, batch, or

other). If the industrial user discharges more than 10 kilograms of such waste per calendar month to the POTW, the notification shall also contain the following information to the extent information is known and readily available to the industrial users: an identification of the hazardous constituents contained in the wastes, an estimation of the mass of constituents in the waste stream expected to be discharged during the following 12 months. All notifications must take place no later than 30 days after the discharge commences. Any notification under this subsection (A) need be submitted only once for each hazardous waste discharged. However, notifications of changed discharges must be submitted under FMC 13.36.250. The notification requirement in this section does not apply to pollutants already reported under the self-monitoring requirements of FMC 13.36.220, 13.36.230, and 13.36.240.

B. In the case of any new regulations under Section 3001 of the federal Resource Conservation and Recovery Act identifying additional characteristics of hazardous waste or listing any additional substance as a hazardous waste, the industrial user must notify the POTW, the EPA Regional Waste Management Waste Division Director, and state hazardous waste authorities of the discharge of such substance within 90 days of the effective date of such regulations.

C. In the case of any notification made under this section, the industrial user shall certify that it has a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree it has determined to be economically practical.

D. This provision does not create a right to discharge any substance not otherwise permitted to be discharged by this chapter, a permit issued thereunder, or any applicable federal or state law. (Ord. 2019-735 § 2 (Exh. 1)).

13.36.300 Analytical requirements.

All pollutant analyses, including sampling techniques, to be submitted as part of a wastewater discharge permit application or report shall be performed in accordance with the techniques prescribed in 40 CFR Part 136, unless otherwise specified in an applicable categorical pretreatment standard. If 40 CFR Part 136 does not contain sampling or analytical techniques for the pollutant in question, sampling and analyses must be performed in accordance with procedures approved by the EPA. (Ord. 2019-735 § 2 (Exh. 1)).

13.36.310 Recordkeeping.

Industrial users shall retain, and make available for inspection and copying, all records and information required to be retained under this chapter. These records shall remain available for a period of at least three years. This period shall be automatically extended for the duration of any litigation concerning

compliance with this chapter, or where the industrial user has been specifically notified of a longer retention period by the city manager. (Ord. 2019-735 § 2 (Exh. 1)).

Chapter 13.56
PERMITS

Sections:

13.56.010 Required.

13.56.020 Applications – Generally.

13.56.030 Application – Contents.

13.56.040 Application – Additional requirements.

13.56.050 Inspections.

13.56.060 Approval – Permit issuance.

13.56.070 Denial – Grounds – Notice.

13.56.080 Expiration.

13.56.090 Revocation.

13.56.100 Appeals – Filing.

13.56.110 Appeals – Hearings.

13.56.120 Prohibitions.

13.56.010 Required.

A. In accordance with FMC 13.28.100 through 13.28.170, no person shall construct, extend, or connect to any public sewer without first obtaining a written permit from the city.

B. No person shall construct, reconstruct, repair, maintain, abandon, operate or excavate for any kind of sewage disposal system or any portion thereof without having first obtained a permit to do so from the health officer. (Ord. 76-370 Art. V § 1).

13.56.020 Applications – Generally.

Each application for a permit to connect to a public sewer or to construct a sewage disposal system shall be made to the director of public works of the city on a form provided by the city. If a public sewer is required as provided in FMC 13.20.070, the public works director shall issue a permit in accordance with the provisions of Division II of this title. If a public sewer is not available the director of public works shall forward the application to the health officer. (Ord. 76-370 Art. V § 2).

13.56.030 Application – Contents.

The information which the applicant is required to present for a permit to construct a sewage disposal system includes but is not limited to the following information:

A. Name, address, and telephone number of the applicant and the owner of the property on which the building or place to be served by the sewage disposal system is located and their agents, if any;

B. Location of the property and the assessor’s parcel number;

C. A scale map of the lot showing appropriate landmarks, steep slopes, roads, surveyor’s landmarks, lot dimensions, existing and proposed easements for road or utility purposes, and existing, proposed, or abandoned sewage disposal systems;

D. Gross lot area, net lot area, and average cross-slope of the lot;

E. The intended use or uses of the property;

F. The number of dwelling units and rooms usable as sleeping quarters; if a nonresidential use is proposed, an estimate of the quantity of sewage flow and the method of estimating the flow shall be provided;

G. The level of the groundwater table during and at the end of the rainy season;

H. The source or purveyor of domestic water;

I. Plans and specifications for the proposed sewage disposal system, showing to scale the location of the proposed system to all structures, wells and watercourses, property lines, reserve areas, and any other information the health officer may deem necessary;

J. Soil characteristics;

K. Other information which the health officer may deem to be necessary to the making of an informed and professional decision on the application. (Ord. 76-370 Art. V § 2).

13.56.040 Application – Additional requirements.

A. The health officer may require that analysis of soil characteristics or of the percolation capacity of the soil be performed or that additional relevant data be gathered and analyzed.

B. The health officer may specify the time of year during which water table determinations are to be made.

C. Any tests, data gathering, or analysis which the health officer may require as part of the application process shall be performed at the expense of the applicant.

D. Any tests, data gathering, or analysis which the health officer may require as part of the application process may be required to be performed under the supervision of the health officer or performed by individuals certified by the health officer to carry out such testing, data gathering, or analysis.

E. Any tests, data gathering, or analysis which the health officer may require as a part of the application process shall be performed in accordance with regulations issued by the health officer.

F. Each application for a permit to construct a sewage disposal system shall be accompanied by a filing fee in an amount set by resolution of the city council in an amount sufficient to cover costs. No part of the fee shall be refundable. (Ord. 76-370 Art. V § 3).

13.56.050 Inspections.

A. Prior to issuing any sewage disposal system permit, the health officer shall inspect the site and review departmental records to determine the probable suitability of the site to absorb sewage.

B. Final inspection of each installation shall be made prior to the time the system is backfilled or covered. In the event that the health officer determines that there has been an improper installation, a stop work order may be posted on the job site. Before any further work is done on the site, clearance from the health officer must be obtained.

C. At the discretion of the health officer the above work may be performed by the building inspector. (Ord. 76-370 Art. V § 4).

13.56.060 Approval – Permit issuance.

A. If the health officer finds that the proposed sewage disposal system conforms to the requirements of this division, regulations issued by the health officer, and other pertinent laws and ordinances, and the proposed sewage disposal system is appropriate for the sewage disposal demands of the situation, he shall issue a permit therefor. The granting of the permit shall be made subject to terms and conditions attached thereto and made a part thereof. If the sewage disposal system requires major repair, the permit shall require the entire system to conform as close as is possible to this division.

B. Final approval of the sewage disposal system by the city does not guarantee that the system will function satisfactorily. Final approval means only that the system has been installed in a manner consistent with the terms and conditions of the permit. (Ord. 76-370 Art. V § 5).

13.56.070 Denial – Grounds – Notice.

A. The health officer shall not issue a permit if he finds that the proposed sewage disposal system does not conform to all the requirements of this division, regulations issued by the health officer, other pertinent laws and ordinances, or for other reasons finds the proposed sewage disposal system inappropriate for the sewage demands of the situation.

B. The health officer shall give written notice to the applicant of the decision to deny the permit. Such notice shall include the reasons for denial. Written notice shall be deemed to be received one day after the notice, properly addressed, is mailed. (Ord. 76-370 Art. V § 6).

13.56.080 Expiration.

All sewage disposal system permits shall expire and become null and void if the work authorized thereby has not been completed and passed final inspection within one year following the issuance of the permit. Prior to the expiration of the one-year period, the health officer may extend the term of the permit for an additional one-year period if presented with evidence that the work authorized can reasonably be expected to be completed during the one-year extension. (Ord. 76-370 Art. VI § 1).

13.56.090 Revocation.

A. Any sewage disposal system permit may be revoked or suspended by the health officer if he determines that a violation of this division or regulations issued by the health officer exists or that the permit was obtained by fraud, misrepresentation, or material omission. Prior to revoking or suspending the permit, the health officer must cause written notice to be mailed to the permittee and to the occupant of the property. The notice shall specify the violation and the work to be done and shall allow 30 days to complete the work. The notice shall also inform the permittee that he has a right to an informal hearing before the health officer.

B. The notice of revocation or suspension shall inform the permittee of his right to a hearing before the city council if the permittee files an appeal with the city council.

C. The suspension or revocation of any permit shall not be effective until 10 days after notice thereof in writing is mailed to the permittee. (Ord. 76-370 Art. VI § 2).

13.56.100 Appeals – Filing.

A. Any person affected by an approval, denial, suspension, or revocation of a permit by the health officer may appeal to the city council by filing a notice of appeal with the city clerk within 30 days of the action of the health officer. The notice of appeal shall be accompanied by a filing fee set by resolution of the city council in an amount sufficient to cover costs. The appeal shall stay the effect of the action of the health officer.

B. The appeal shall be in writing and addressed to the city council. The appellant shall file a copy of the appeal with the health officer on the day of filing with the city clerk. In the notice of appeal the appellant shall state in full the facts and circumstances which make the action of the health officer unreasonable. It shall also state the date of the claimed unreasonable action of the health officer. (Ord. 76-370 Art. VII § 1).

13.56.110 Appeals – Hearings.

A. The city council shall cause the matter to be set for hearing not earlier than 20 days after the notice of appeal has been filed with the city clerk. The city clerk shall cause notice to be mailed to all affected persons at least 10 days prior to the hearing.

B. At the time and place set for the hearing, the council shall proceed to hear the testimony of the health officer, the testimony of the owner or his representatives, and the testimony of other competent persons concerning the conditions upon which the council may deem pertinent. Any person affected may be present at such hearing, may be represented by counsel, may present testimony, and may cross-examine the health officer and other witnesses. The hearing may be continued from time to time.

C. The health officer may cross-examine the appellant and other witnesses and may be represented by counsel. At the request of the health officer, the city attorney shall represent the health officer.

D. “Any person affected” shall include but not be limited to the applicant or his agent, the owner of the affected property or his agent, and the owners or their agents of all adjoining properties to the property against which the action of the health officer is directed.

E. The city council may upon the appeal either affirm the action of the health officer or grant a variance to the provisions of this division or regulations issued by the health officer upon which the action under appeal is based. The decision of the city council upon an appeal shall be based upon the facts presented to it. (Ord. 76-370 Art. VII § 2).

13.56.120 Prohibitions.

A. No permit shall be issued if the operation of the proposed sewage disposal system would tend to create a public nuisance.

B. No application shall be accepted if the proposed development of the site would violate any ordinance enacted by the city council or would be inconsistent with the general plan, zoning ordinances or open space conservation plan.

C. No permit shall be issued if the operation of the proposed sewage disposal system would violate any laws of the state. (Ord. 76-370 Art. X § 1).

Chapter 13.60
ADMINISTRATION AND ENFORCEMENT

Sections:

13.60.010 Right of entry for inspections.

13.60.020 Violation notices.

13.60.030 Nuisance abatement.

13.60.040 Public nuisances enumerated.

13.60.050 Abandoned sewage disposal systems.

13.60.060 Lot inspections.

13.60.070 Subdivisions – Plans required – Contents.

13.60.080 Moratoria on permit issuance.

13.60.090 Promulgation of rules and regulations.

13.60.100 Duties of city manager.

13.60.110 Compliance monitoring.

13.60.120 Publication of industrial users in significant noncompliance.

13.60.130 Administrative enforcement remedies.

13.60.140 Judicial enforcement remedies.

13.60.150 Supplemental enforcement action.

13.60.160 Remedies nonexclusive.

13.60.170 Affirmative defenses to discharge violations.

13.60.180 Penalty.

13.60.010 Right of entry for inspections.

Whenever necessary to make an inspection to determine compliance with the provisions of this division, the health officer may enter any buildings or place at all reasonable times to inspect the same or to perform any duty imposed upon the health officer by this division; provided, that if such building or place is occupied, he shall first present proper credentials and demand entry; and, if such building or place is unoccupied, he shall first make a reasonable effort to locate the owner or other persons having charge or control of the building or place and demand entry. (Ord. 76-370 Art. VIII § 1).

13.60.020 Violation notices.

In the event a sewage disposal system subject to this division is operated, constructed, or repaired contrary to the terms of this division or regulations issued by the health officer, the health officer may send written notice to the owner of the land as shown on the most recent equalized assessment roll, at his address listed on said roll, which notice shall state the manner in which the sewage disposal system is in violation, what corrective measures must be taken, the time within which such corrections must be

made and that, if the landowner fails to make corrections within the period provided, the corrections may be made by the city and the landowner shall be liable for the costs thereof. (Ord. 76-370 Art. VIII § 2).

13.60.030 Nuisance abatement.

If the corrections listed on the notice are not made as required in the notice, the health officer shall abate the nuisance or violation. The notice permitted by FMC 13.60.020 need not be given prior to abating the nuisance or violation. (Ord. 76-370 Art. VIII § 3).

13.60.040 Public nuisances enumerated.

A. The following are declared to be a public nuisance:

1. The presence of sewage upon the surface of the ground in urban and suburban areas;

2. A sewage disposal system which creates a public nuisance;

3. A sewage disposal system which empties, flows, seeps, or drains into any surface waters or can reasonably be expected to do so;

4. A sewage disposal system which now does or may reasonably be expected to empty, flow, seep or drain into or adversely affect any subsurface water which is used or is suitable for use by any inhabitants of the state.

B. This declaration of public nuisance is not intended to be an exclusive definition of public nuisance or a limitation upon the authority of the health officer to declare other circumstances to be a public nuisance. (Ord. 76-370 Art. VIII § 4).

13.60.050 Abandoned sewage disposal systems.

A. Every abandoned building sewer or part thereof shall be plugged or capped in an approved manner within five feet of the property line.

B. Every abandoned septic tank shall have the sewage removed therefrom and be completely filled with earth, sand, gravel, concrete, or other approved material. The cover of the septic tank shall be removed before filling. The filling shall not extend above the top of the vertical portion of the sidewalls or above the level of any outlet pipe until an inspection has been completed by the health officer. After such inspection the septic tank shall be filled to the level of the top of the ground.

C. No person owning or controlling any septic tank shall fail, refuse, or neglect to comply with the provisions of this section upon receipt of notice from the health officer.

D. Where a sewage disposal system is abandoned consequent to connecting with the public sewer, the permittee making the connection shall fill the abandoned septic tank as required by the health officer within 30 days from the time of connecting with the public sewer. (Ord. 76-370 Art. VIII § 5).

13.60.060 Lot inspections.

A. Upon request, the health department may make inspection of a lot and review available departmental records to determine the probable suitability of the property for individual sewage disposal. The health officer shall issue a report on the inspection findings to the property owner or his authorized representative. A lot inspection report shall not constitute approval for the issuance of the sewage disposal permit or guarantee of such issuance.

B. Each application for inspection of a lot shall be accompanied by a fee set by resolution of the city council in an amount sufficient to cover costs. When inspection of more than one lot is requested, the fee shall be charged for each lot. (Ord. 76-370 Art. IX § 1).

13.60.070 Subdivisions – Plans required – Contents.

A. For any proposed subdivision or minor subdivision which will not be connected to a public sewer system prior to sale of the lots, the health officer shall require detailed plans of the means of sewage disposal to be used in the subdivision before presenting recommendations to the planning commission.

B. Such plans shall recognize that the sewage disposal demands of any particular subdivision cannot be analyzed without reference to the sewage disposal demands of the land surrounding the subdivision.

C. Such plans shall recognize that the proposed sewage disposal system of the subdivision must be viewed as a single system for purposes of analysis.

D. Such plans shall be consistent with all the provisions of this division and regulations issued by the health officer.

E. Such plans shall include provisions to meet sewage disposal demands over the long-term.

F. Such plans require the approval of the health officer.

G. The plans shall be accompanied by a fee sufficient to cover the expenses incurred by the city in reviewing the plans. The fee shall be set by resolution of the city council. In the event that the actual costs are less than the fee deposited, the balance shall be returned. In the event the actual costs are greater than the fee deposited, the subdivider shall pay to the city the excess of the actual costs over the amount of the fee deposited. (Ord. 76-370 Art. IX § 2).

13.60.080 Moratoria on permit issuance.

A. In areas where sewage disposal systems represent existing or potential community problems, the city council may declare a moratorium on the issuance of sewage disposal system permits. Information shall be gathered by the health officer regarding the nature of current and potential problems in such areas.

B. Factors involved in the declaration of a moratorium include but are not limited to:

1. High groundwater during any part of the year;

2. Soil conditions;

3. Geologic conditions;

4. Failed systems in the area;

5. Density of dwellings;

6. Load on the system or systems;

7. Land use patterns;

8. Nuisance hazard;

9. Other factors as may be identified by the health officer.

C. The health officer shall keep on file maps showing the moratorium areas and shall inform other permitting agencies and local financial institutions of the action of the city council. (Ord. 76-370 Art. IX § 3).

13.60.090 Promulgation of rules and regulations.

A. The health officer shall issue such regulations as he deems necessary to carry out the provisions of this division.

B. Any such regulations issued by the health officer shall:

1. Be consistent with the intent and purpose of this division;

2. Recognize the most current technical information relevant to the provisions of this division;

3. Provide for exceptions where a strict application of this division or regulations issued by the health officer would inflict a substantial personal hardship upon the occupants of the building or place in question;

4. Be designed to minimize and eliminate public nuisance hazards or the potential thereof;

5. Recognize that any single sewage disposal system is in reality a subunit of a larger sewage disposal system comprised of numerous subunits.

C. Regulations issued by the health officer under this section shall become effective when filed with the city clerk.

D. Regulations issued under this section may be amended by the health officer from time to time by filing such amendments with the city clerk; amendments shall become effective when filed.

E. Regulations issued under this section shall be available to the public in booklet form at a fee to be determined by the city council. (Ord. 76-370 Art. IX § 4).

13.60.100 Duties of city manager.

Except as otherwise provided in this chapter, the city manager shall administer, implement and enforce the provisions of this chapter. Any powers granted to or duties imposed upon the city manager may be delegated by the city manager to other city personnel. (Ord. 2019-735 § 2 (Exh. 1)).

13.60.110 Compliance monitoring.

A. Inspection and Sampling. The city manager shall have the right to enter the facilities of any industrial user to ascertain whether the purpose of this chapter, and any permit or order issued hereunder, is being met and whether the industrial user is complying with all requirements thereof. Industrial users shall allow the city manager or his representatives ready access to all parts of the premises for the purposes of inspection, sampling, records examination and copying, and the performance of any additional duties.

1. Where an industrial user has security measures in force which require proper identification and clearance before entry into its premises, the industrial user shall make necessary arrangement with its security guards so that, upon presentation of suitable identification, personnel for the city, state, and EPA shall be permitted to enter without delay, for the purposes of performing their specific responsibilities.

2. The city, state, and EPA shall have the right to set up on the industrial user’s property, or require installation of, such devices as are necessary to conduct sampling and/or metering of the user’s operations.

3. The city may require the industrial user to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the industrial user at its own expense. The monitoring equipment should normally be situated on the user's premises, but the city may, when such a location would be impractical or cause undue hardship on the user, allow the facility to be constructed in the public street or sidewalk area and located so that the facility will not be obstructed by landscaping or parked vehicles. All devices used to measure wastewater flow and quality shall be calibrated yearly to ensure their accuracy.

4. Any temporary or permanent obstruction to safe and easy access to the industrial facility to be inspected and/or sampled shall be promptly removed by the industrial user at the written or verbal request of the city manager and shall not be replaced. The costs of clearing such access shall be borne by the industrial user.

5. Unreasonable delays in allowing city personnel access to the industrial user's premises shall be a violation of this chapter.

6. Whether constructed on public or private property, the sampling and monitoring facilities shall be provided in accordance with the city's requirements and all applicable local agency construction standards and specifications. Construction shall be completed within 90 days following written notification by the city, unless a time extension is otherwise granted by the city.

B. Search Warrants. If the city manager has been refused access to a building, structure, or property or any part thereof, and if the city manager has demonstrated probable cause to believe that there may be a violation of this chapter or that there is a need to inspect as part of a routine inspection program of the city designed to verify compliance with this chapter or any permit or order issued hereunder, or to protect the overall public health, safety, and welfare of the community, then the city attorney may apply to the appropriate court for a search, inspection and/or seizure warrant describing therein the specific location subject to the warrant. The warrant shall specify what, if anything, may be searched and/or seized on the property described. In the event of an emergency affecting public health and safety, inspections shall be made without the issuance of a warrant in accordance with law. (Ord. 2019-735 § 2 (Exh. 1)).

13.60.120 Publication of industrial users in significant noncompliance.

The city shall publish annually, in the largest daily newspaper published in the municipality where the POTW is located, a list of the significant industrial users and categorical industrial users which, during the previous 12 months, were in significant noncompliance with applicable pretreatment standards and requirements. The term significant noncompliance shall mean:

A. Chronic violations of wastewater discharge limits, defined here as those in which 66 percent or more of all of the measurements taken for the same pollutant parameter during a six-month period exceed (by any magnitude) a numeric pretreatment standard or requirement, including instantaneous limits, as defined by 40 CFR 403.3(l);

B. Technical review criteria (TRC) violations, defined here as those in which 33 percent or more of all of the measurements taken for the same pollutant parameter during a six-month period equal or exceed the product of the numeric pretreatment standard or requirement including instantaneous limits, as defined by 40 CFR 403.3(l) multiplied by the applicable TRC (TRC = 1.4 for BOD, TSS, fats, oil, and grease, and 1.2 for all other pollutants except pH);

C. Any other violation of a pretreatment standard or requirement as defined by 40 CFR 403.3(l) (daily maximum, long-term average, instantaneous limit, or narrative standard) that the POTW determines has caused, alone or in combination with other discharges, interference or pass through (including endangering the health of POTW personnel or the general public);

D. Any discharge of pollutants that has caused imminent endangerment to the public or to the environment or has resulted in the city's exercise of its emergency authority to halt or prevent such a discharge;

E. Failure to meet, within 90 days of the scheduled date, a compliance schedule milestone contained in a wastewater discharge permit or enforcement order for starting construction, completing construction, or attaining final compliance;

F. Failure to provide, within 30 days after the due date, any required reports, including baseline monitoring reports, 90-day compliance reports, periodic self-monitoring reports, and reports on compliance with compliance schedules;

G. Failure to accurately report noncompliance; and

H. Any other violation which the city determines will adversely affect the operation or implementation of the local pretreatment program. (Ord. 2019-735 § 2 (Exh. 1)).

13.60.130 Administrative enforcement remedies.

A. Notification of Violation. Whenever the city manager finds that any person has violated or is violating this chapter, a wastewater discharge permit or order issued hereunder, or any other pretreatment requirement, the city manager or his agent may serve upon said person a written notice of violation. Within seven days of the receipt of this notice, an explanation of the violation and a plan for the

satisfactory correction and prevention thereof, to include specific required actions, shall be submitted by the person to the city manager. Submission of this plan in no way relieves the person of liability for any violations occurring before or after receipt of the notice of violation. Nothing in this section shall limit the authority of the city to take any action, including emergency actions or any other enforcement action, without first issuing a notice of violation.

A warning NOV is a verbal or written communication between the city manager and the industrial user regarding possible enforcement action for potential or actual noncompliance by the industrial user. The city manager must document the warning in writing and place a copy of the documentation in the user's file.

B. Consent Orders. The city manager may enter into consent orders, assurances of compliance, or other similar documents establishing an agreement with any person responsible for noncompliance. Such documents shall include specific action to be taken by the person to correct the noncompliance within a time period specified by the document. Such documents shall have the same force and effect as the administrative orders issued pursuant to subsections (D) and (E) of this section and shall be judicially enforceable.

C. Show Cause Hearing. The city manager may order a person which has violated, or continues to violate, any provision of this chapter, an individual wastewater discharge permit, or order issued hereunder, or any other pretreatment standard or requirement, to appear before the city manager and show cause as to why the proposed enforcement action should not be taken. Notice shall be served on the person specifying the time and place for the meeting, the proposed enforcement action, the reasons for such action, and a request that the person show cause why the proposed enforcement action should not be taken. The notice of the meeting shall be served personally or by registered or certified mail (return receipt requested) at least seven days prior to the hearing. Such notice may be served on any authorized representative of the person as defined in FMC 13.24.320 and required by FMC 13.36.020(B). A show cause hearing shall not be a bar against, or prerequisite for, taking any other action against the person.

D. Compliance Orders. When the city finds that a person has violated or continues to violate this chapter, wastewater discharge permits or order issued hereunder, or any other pretreatment standard or requirement, the city may issue an order to the person responsible for the discharge directing that the person come into compliance within 30 days. If the person does not come into compliance within 30 days, sewer service shall be discontinued unless adequate treatment facilities, devices, or other related appurtenances are installed and properly operated. Compliance orders may not extend the deadline for compliance established for a federal pretreatment standard or requirement, nor does a compliance order

release the person of liability for any violation, including any continuing violation. Issuance of a compliance order shall not be a prerequisite to taking any other action against the person.

E. Cease and Desist Orders.

1. When the city manager finds that a person is violating this chapter, the person's wastewater discharge permit, any order issued hereunder, or any other pretreatment standard or requirement, or that the person's past violations are likely to recur, the city manager may issue an order to the person directing the person to cease and desist all such violations and directing the person to:

a. Immediately comply with all requirements; and

b. Take such appropriate remedial or preventive action as may be needed to properly address a continuing or threatened violation, including halting operations and/or terminating the discharge.

2. Issuance of a cease and desist order shall not be a prerequisite to taking any other action against the person.

F. Administrative Fine.

1. Notwithstanding any other section of this chapter, any person that is found to have violated any provision of this chapter, its wastewater discharge permit, and orders issued hereunder, or any other pretreatment standard or requirement, may be fined in an amount not to exceed $1,000. Such fines shall be assessed on a per violation, per day basis. In the case of monthly or other long-term average discharge limits, fines may be assessed for each day during the period of violation.

2. Assessments may be added to the person's next scheduled sewer service charge and the city manager shall have such other collection remedies as may be available for other service charges and fees.

3. Unpaid charges, fines, and penalties shall, after 60 calendar days, be assessed an additional penalty of 10 percent of the unpaid balance and interest shall accrue thereafter at a rate of 0.5 percent per month. A lien against the individual person's property will be sought for unpaid charges, fines, and penalties.

4. Persons desiring to dispute such fines must file a written request for the city manager to reconsider the fine along with full payment of the fine amount within 30 days of being notified of the fine. Where a request has merit, the city manager shall convene a hearing on the matter within 30

days of receiving the request from the industrial person. In the event the person's appeal is successful, the payment together with any interest accruing thereto shall be returned to the industrial person. The city may add the costs of preparing administrative enforcement actions such as notices and orders to the fine.

5. Issuance of an administrative fine shall not be a prerequisite for taking any other action against the person.

G. Emergency Suspensions.

1. The city manager may immediately suspend a person's discharge (after informal notice to the person) whenever such suspension is necessary in order to stop an actual or threatened discharge which reasonably appears to present or cause an imminent or substantial endangerment to the health or welfare of persons. The city manager may also immediately suspend a person's discharge (after notice and opportunity to respond) that threatens to interfere with the operation of the POTW, or which presents or may present an endangerment to the environment.

a. Any person notified of a suspension of its discharge shall immediately stop or eliminate its contribution. In the event of a person's failure to immediately comply voluntarily with the suspension order, the city manager shall take such steps as deemed necessary, including immediate severance of the sewer connection, to prevent or minimize damage to the POTW, its receiving stream, or endangerment to any individuals. The city manager shall allow the person to recommence their discharge when the person has demonstrated to the satisfaction of the city that the period of endangerment has passed, unless the termination proceedings set forth in this chapter are initiated against the person.

b. A person that is responsible, in whole or in part, for any discharge presenting imminent endangerment shall submit a detailed written statement describing the causes of the harmful contribution and the measures taken to prevent any future occurrence to the city manager, prior to the date of any show cause or termination hearing as set forth in this chapter.

2. Nothing in this subsection (G) shall be interpreted as requiring a hearing prior to any emergency suspension under this section.

H. Termination of Discharge.

1. In addition to those provisions in FMC 13.36.050, any person that violates the following conditions of this chapter, wastewater discharge permits, or orders issued hereunder, is subject to discharge termination:

a. Violation of wastewater discharge permit conditions;

b. Failure to accurately report the wastewater constituents and characteristics of its discharge;

c. Failure to report significant changes in operations or wastewater volume, constituents and characteristics prior to discharge;

d. Refusal of reasonable access to the person's premises for the purpose of inspection, monitoring, or sampling;

e. Violation of the pretreatment standards in FMC 13.32.020 through 13.32.150.

2. Such person will be notified of the proposed termination of its discharge and be offered an opportunity to show cause under subsection (C) of this section why the proposed action should not be taken. (Ord. 2019-735 § 2 (Exh. 1)).

13.60.140 Judicial enforcement remedies.

A. Injunctive Relief. Whenever the person has violated a pretreatment standard or requirement or continues to violate the provisions of this chapter, wastewater discharge permits or orders issued hereunder, or any other pretreatment requirement, the city may petition the Superior Court for the issuance of a temporary or permanent injunction, as may be appropriate in restraining the continuance of such violation. In any such action, the city shall be entitled to recover, in addition to other costs and damages, an amount for reimbursement of its reasonable attorneys' fees.

B. Civil Penalties.

1. Any person which has violated or continues to violate this chapter, any order, or wastewater discharge permit hereunder, or any other pretreatment standard or requirement, shall be liable to the city for a maximum civil penalty of $6,000 per violation per day. In the case of a monthly or other long-term average discharge limit, penalties shall accrue for each day during the period of the violation.

2. The city may recover reasonable attorneys' fees, court costs, and other expenses associated with enforcement activities, including sampling and monitoring expenses, and the cost of any actual damages incurred by the city.

3. When a discharge of wastes causes an obstruction, damage, or other impairment to the POTW, the city may assess a charge against the person for the cost of the work required to clean or repair the POTW and add such charge to the person's service charge.

4. Filing a suit for civil penalties shall not be a prerequisite for taking any other action against a person. (Ord. 2019-735 § 2 (Exh. 1)).

13.60.150 Supplemental enforcement action.

A. Water Supply Severance. Whenever a person has violated or continues to violate the provisions of this chapter, orders, or wastewater discharge permits issued in this chapter, water service to the person may be severed. Service will only recommence, at the person's expense, after it has satisfactorily demonstrated its ability to comply.

B. Public Nuisances. Any violation of this chapter, wastewater discharge permits, or orders issued hereunder is hereby declared a public nuisance and shall be corrected or abated as directed by the city manager or his designee. Any person(s) creating a public nuisance shall be subject to the provisions of applicable state and city codes, ordinances, rules and/or regulations governing such nuisances, including recoupment by the city of any costs incurred in removing, abating or remedying said nuisance. (Ord. 2019-735 § 2 (Exh. 1)).

13.60.160 Remedies nonexclusive.

The provisions in FMC 13.60.120 through 13.60.150 are not exclusive remedies. The city reserves the right to take any, all or any combination of these actions against a noncompliant user. Enforcement of pretreatment violations will generally be in accordance with the city's enforcement response plan. However, the city reserves the right to take other action against any user when the circumstances warrant. Further, the city is empowered to take more than one enforcement action against any noncompliant user. These actions may be taken concurrently. (Ord. 2019-735 § 2 (Exh. 1)).

13.60.170 Affirmative defenses to discharge violations.

A. Upset.

1. For the purposes of this section, "upset" means an exceptional incident in which there is unintentional and temporary noncompliance with categorical pretreatment standards because of factors beyond the reasonable control of the industrial user. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

2. An upset shall constitute an affirmative defense to an action brought for noncompliance with categorical pretreatment standards if the requirements of subsection (A)(3) of this section are met.

3. An industrial user who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence, that:

a. An upset occurred and the industrial user can identify the cause(s) of the upset;

b. The facility was at the time being operated in a prudent and workmanlike manner and in compliance with applicable operation and maintenance procedures;

c. The industrial user has submitted the following information to the POTW and treatment plant operator within 24 hours of becoming aware of the upset (if this information is provided orally, a written submission must be provided within five days):

i. A description of the indirect discharge and cause of noncompliance.

ii. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue.

iii. Steps being taken and/or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

4. In any enforcement proceeding, the industrial user seeking to establish the occurrence of an upset shall have the burden of proof.

5. Industrial users will have the opportunity for a judicial determination on any claim of upset only in an enforcement action brought for noncompliance with categorical pretreatment standards.

6. The industrial user shall control production of all discharges to the extent necessary to maintain compliance with categorical pretreatment standards upon reduction, loss, or failure of its treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

B. Bypass.

1. For the purposes of this section:

a. “Bypass” shall mean the intentional diversion of waste streams from any portion of an industrial user’s treatment facility.

b. “Severe property damage” shall mean substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

2. An industrial user may allow any bypass to occur which does not cause pretreatment standards or requirements to be violated, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of subsections (B)(3) and (4) of this section.

3. Bypass Notification.

a. If an industrial user knows in advance of the need for a bypass, it shall submit prior notice to the POTW, at least 10 days before the date of the bypass if possible.

b. An industrial user shall submit oral notice of an unanticipated bypass that exceeds applicable pretreatment standards to the POTW within 24 hours from the time it becomes aware of the bypass. A written submission shall also be provided within five days of the time the industrial user becomes aware of the bypass. The written submission shall contain a description of the bypass and its cause; the duration of the bypass, including exact dates and times, and if the bypass has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the bypass. The POTW may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

4. Bypass is prohibited, and the POTW may take enforcement action against an industrial user for a bypass, unless:

a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been

installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

c. The industrial user submitted notices as required under subsection (B)(3) of this section.

i. The POTW may approve an anticipated bypass, after considering its adverse effects, if the POTW determines that it will meet the three conditions listed in subsection (B)(4) of this section. (Ord. 2019-735 § 2 (Exh. 1)).

13.60.180 Penalty.

A. Any person that willfully or negligently violates any provision of this chapter, any orders, or wastewater discharge permits issued hereunder, or any other pretreatment requirement, shall, upon conviction, be guilty of a misdemeanor, punishable by a fine of not more than $500.00 per violation per day or imprisonment for not more than one year or both.

B. Any person that willfully or negligently introduces any substance into the POTW which causes personal injury or property damage shall, upon conviction, be guilty of a misdemeanor and be subject to a penalty of at least $500.00 per violation per day or imprisonment for not more than one year. This penalty shall be in addition to any other cause of action for personal injury or property damage available under state law.

C. Any person that knowingly makes any false statements, representations, or certifications in any application, record, report, plan or other documentation filed, or required to be maintained, pursuant to this chapter, wastewater discharge permit or order, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under this chapter shall, upon conviction, be punished by a fine of not more than $500.00 per violation per day or imprisonment for not more than one year or both.

D. In the event of a second conviction, a person shall be punished by a fine of not more than $2,000 per violation per day or imprisonment for not more than two years or both. (Ord. 2019-735 § 2 (Exh. 1)).

APPENDIX C

SSMP AUDIT REPORT, NOVEMBER 2017

Biennial Sewer System Management Plan Audit Report

Name of agency	**City of Fortuna**
Date of audit	**August 17, 2017**
Date of SSMP	**April 27, 2011**
SSMP Update Due Date	**April 27, 2013**
Name of auditor	**Doug Culbert (City of Fortuna), Orrin Plocher (Freshwater Environmental Services)**

The purpose of the Sewer System Management Plan (SSMP) Audit is to evaluate the effectiveness of City of Fortuna SSMP and to identify whether updates are needed. This document was designed to meet the requirements of State Water Resources Control Board Order No. 2006-0003-DWQ as revised by Order No. WQ 2013-0058-EXEC. Documentation of SSMP audits are kept on file at the Del Norte County Community Development Department, and an indication is made in the California Integrated Water Quality System (CIWQS) database that the audit was completed. This audit report format is modified from audit reports(s) developed by Bay Area Clean Water Agency (BACWA).

ELEMENT 1. GOALS

1. Are the goals stated in the SSMP still appropriate and accurate? **YES /NO**

ELEMENT 2. ORGANIZATION

2. Is the SSMP up-to-date with organization and staffing contact information? **YES / NO**

Comment: Update SSMP to reference current Crescent City position titles and names. Update City Manager name. Update LRO name and contact information. Update regulatory notification procedures to be consistent with and Order Number WQ 2013-0058-EXEC in the SSMP and Overflow Emergency Response Plan (Packet).

ELEMENT 3. LEGAL AUTHORITY

3. Does the SSMP reference up-to-date information about legal authority? **YES / NO**

4. Does the City of Fortuna have sufficient legal authority to control sewer use and maintenance? **YES / NO**

Comment: The City of Fortuna legal authority for the sewer collection system in the City limits has not changed since the previous SSMP. Verify if the interagency agreement with Palmer Creek CSD has been updated since the last SSMP. The agreement with Palmer Creek CSD could establish parity with the Fortuna Municipal code and adopt all the same prohibitions and restrictions. Enforcement of sewer regulations in Palmer Creek CSD needs to be clarified and documented in an agreement.

ELEMENT 4. OPERATIONS AND MAINTENANCE PROGRAM

4.a Map of the Sanitary Sewer System

5. Does the SSMP reference up-to-date information about maps? **YES / NO**

Comment: If there been progress in migrating the CAD data to a GIS platform that should be described in the updated SSMP

6. Are collection system maps complete, up-to-date, and sufficiently detailed? **YES / NO**

Comment: CAD maps are updated regular, updated versions should to included in the updated SSMP.

4.b Preventative Maintenance Program

7. Does the SSMP contain up-to-date information about preventive operations and maintenance activities? **YES / NO**

8. Are Fortuna's preventive maintenance activities sufficient and effective in reducing and preventing SSOs and blockages? **YES / NO**

Comment: Provide sample documentation of routine O/M scheduling documents, and updated hotspot cleaning schedule.

4.c Rehabilitation and Replacement Plan

9. Does the SSMP contain up-to-date information about the rehabilitation and replacement program? **YES / NO**

10. Does the SSMP contain up-to-date information about Closed Circuit Television (CCTV) inspections? **YES / NO**

11. Are scheduled inspections and the condition assessment system effective in identifying, prioritizing, and addressing deficiencies? **YES / NO**

Comment: SSMP should be updated to reflect changes in the inspection/ranking/rehabilitation process.

12. Does the Capital Improvement Plan (CIP) address prioritized projects for collection system assets? **YES / NO**

Comment: The current SSMP acknowledges a Capital Improvements Plan but does not include documentation of a CIP projects, schedule, or sources of funding.

4.d Training

13. Does the SSMP contain up-to-date information about existing training programs? **YES / NO**

14. Do supervisors believe their staff are sufficiently trained? **YES / NO**

15. Are staff satisfied with the training opportunities and support offered to them? **YES / NO**

Comment: Describe the training management program that includes scheduling and tracking of employee training.

4.e Equipment and Replacement Part Inventories

16. Does the SSMP reference up-to-date information about equipment and **YES / NO**

replacement part inventories?

ELEMENT 5. DESIGN AND PERFORMANCE PROVISIONS

17. Does the SSMP contain up-to-date information about design and construction standards? **YES / NO**

Comment: Design and testing standards were likely updated and need to be referenced in the updated SSMP.

ELEMENT 6. SSO & BACKUP RESPONSE PLAN

18. Does the SSMP contain an up-to-date version of SSO Response Plan? **YES / NO**

19. Is the Response Plan effective in handling SSOs? (if **YES**, indicate specific information under the "Evaluation of the Effectiveness of the SSMP" section below) **YES / NO**

Comment: Update response plan information, to include new regulatory reporting requirements and surface water sampling requirements.

ELEMENT 7. FATS, OILS, AND GREASE (FOG) CONTROL PROGRAM

20. Does the SSMP reference or contain up-to-date information about the City of Fortuna's FOG control program? **YES / NO**

21. Is the current FOG program effective in documenting and controlling FOG sources? **YES / NO**

22. Are all public outreach materials for the FOG program current? **YES / NO**

Comment: Update SSMP to include reference to an appendix that includes the FOG Policy. Review the FOG Policy to determine if it meets the needs of the City of Fortuna or if revisions are warranted.

ELEMENT 8. SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

23. Does the SSMP reference or contain up-to-date information about CSA's capacity assessment activities and documentation? **YES / NO**

24. Is the City sufficiently addressing hydraulic deficiencies? **YES / NO**

Comment: Update results of continuous flow monitoring. Update list of areas with capacity deficiencies and identify projects included in the CIP.

ELEMENT 9. MONITORING, MEASUREMENT, AND PROGRAM MODIFICATIONS

25. Does the SSMP reference up-to-date information about the City's data collection and organization (e.g. use of CMMS, performance indicators, etc.)? **YES / NO**

26. Is the City's data collection and organization sufficient to evaluate the effectiveness of the SSMP? **YES / NO**

ELEMENT 10. SSMP PROGRAM AUDITS

27. Will this SSMP Audit be completed by every two years starting in 2017? **YES / NO**

ELEMENT 11. COMMUNICATION PROGRAM

28. Fortuna's website up-to-date, including information related to providing an opportunity for public input on the SSMP? **YES / NO**

Comment: The current SSMP was not located on the County website.

Evaluation of the Effectiveness of the SSMP

Below is a summary of SSOs associated with the City of Fortuna wastewater collection system:

City of Fortuna
SSO Summary 2008 to 2017

Year	Number of SSOs	Total Volume	Recovered	% Recovery		Lift Station Malfunction	I/I	Debris	FOG	WWTP
2008	5	672	670	**99.7%**		1	2	1	1	
2009	1	8	8	**100%**		0	0	1	0	
2010	4	1057	15	**0%**		1	0	1	2	
2011	6	368,750	300,000	**81%**			1	1	2	2
2012	3	1,500	0	**0%**			1	1	1	
2013	3	2,110	150	**7%**				1	2	
2014	4	905	420	**46%**				4		
2015	2	134,010	0	**0.0%**			1	1		
2016	0	0	0	**NA**						
2017	2	3,900	0	**0%**			2			
				Total		2	7	11	6	2
				% of Total		7%	25%	39%	21%	7%

Recent SSOs caused by excessive flow due to I/I creating a hydraulic deficiency and debris. There have been no FOG caused SSOs since 2013.

Review of Online SSO Reporting Data (2014 through August, 2017)

Below is a list on comments related to the online reporting of SSOs:

- One SSO reports (2017) indicate it is "ready to be certified" indicating that the notification process may not be complete and are lacking the name of the certifying person;

APPENDIX D

SANITARY SEWER MAPS

SCALE 1"=500'

CITY OF FORTUNA
SANITARY DRAINAGE AREAS

- (A) NORTH AREA - MINI SYSTEMS 1-5
- (B) NORTH CENTRAL AREA - MINI SYSTEMS 6-9
- (C) CENTRAL AREA - MINI SYSTEMS 10-12, 14, 15
- (D) REDWOOD AREA - MINI SYSTEMS 16, 18-20
- (E) KENMAR AREA - MINI SYSTEMS 22-27
- (F) CAMPTON HEIGHTS AREA - MINI SYSTEMS 28-34
- (G) 101 - WEST AREA - MINI SYSTEMS 13, 17, 21

MINI SYSTEM NAMES

1. NOB HILL L.S.
2. HOME AVE.
3. NORTH MAIN L.S.
4. 6TH STREET
5. 8TH & 9TH STREETS
6. NORTH 12TH ST.
7. SOUTH 12TH ST.
8. NEWELL DR.
9. BEECH ST.
10. RBV L.S.
11. SNOB HILL
12. SMITH LANE
13. WWTP
14. WEST NEWBURG ROAD
15. LAWNDALE
16. SENESTRANO
17. PALCO
18. MAXWELL
19. HOSPITAL
20. ROHNERVILLE L.S.
21. RIVERWALK DR.
22. LITTLEFIELD
23. LAURELWOOD L.S.
24. LOWER KENMAR
25. KENWOOD
26. FOREST HILLS
27. UPPER KENMAR
28. ROSS HILL ROAD
29. CHERYL LANE
30. THELMA - WOOD ST.
31. EAST SCHOOL ST.
32. RONALD AVE.
33. SOUTH ROHNERVILLE
34. HILLRAS WEST

KEY

9.60	DEPTH OF MH
100	NEW MH NUMBER
183.45	ELEVATION A TOP OF MH
8016	OLD MH NUMBER

SEWER LINE

MANHOLE

LIFT STATION

City of Fortuna

Sanitary Sewer Collection System

Updated - 4-28-09

APPENDIX E

EXAMPLE HOT SPOT CLEANING LIST

HOT SPOT LIST

LOCATION	DATE	DISTANCE	DIRECTION	PSI LOW	SIZE	TYPE	INITIALS
9TH / P ST - FROM 9TH TO GARDEN LN			WEST	X			
9TH /MAIN - MH BETWEEN MAIN & N ST			BOTH				
9TH /K ST - WST END OF K ST (RXR TRK NEAR 101)			BOTH				
MAIN ST - BTWN 11TH & 12TH; UP ALLEY			NORTH	X			
PARK PAVILION			ALL				
MAIN ST /PARK ST			NORTH				
MAIN ST/ COAST CNTRL CREDIT			WEST				
RHNRVLL RD / DAVID WAY - (VALLEY VIEW)			NORTH				
361 N FRTNA BLVD (MI RANCHO)			BOTH				
360 N FRTNA BLVD (GEORGES GLASS)			EAST				
SMITH LN/ N FRTNA BLVD- MH ON WST SIDE			EAST				
SMITH LN/ FORBUSCO - MH NEAR FENCE			EAST				
SMITH LN (ERD RECYCLE) ; MANHOLE IN FIELD			NORTH				
SO. 15TH ST - MH AT NORTH END			EAST				
NEWBURG - EAST OF ORCHARD LN (FRTNA REHAB)			SOUTH				
NEWBURG/ ORCHARD LN			NORTH	X			
NEWBURG / 12TH ST - (TOMS SOURDOUGH)			BOTH				
SUMMER / 2ND AVE			SOUTH				

HOT SPOT LIST

LOCATION	DATE	DISTANCE	DIRECTION	PSI LOW	SIZE	TYPE	INITIALS
LONI DR - FROM NORTH WEST LOOP			SOUTH				
S FRTNA BLVD / STRONGS CREEK - MH IN LFT TURN LN			NORTH				
S FRTNA BLVD / MH NORTH OF ABOVE (IN MEDIAN)			NORTH				
S FRTNA BLVD / -(VLLG STOR) MH ON WST SIDE			SOUTH	X			
S FRTNA BLVD/ - (LA COSTA) MH ON WST SIDE			SOUTH	X			
S FRTNA BLVD/ 2ND AVE - MH ON WST SIDE			SOUTH				
S FRTNA BLVD/ 1ST AVE - MH ON WST SIDE			SOUTH				
KENMAR / CHURCH			EAST	X			
KENMAR / SHIELDS LN.- EAST (SHIELDS) AND SOUTH			BOTH	X			
2823 KENWOOD			EAST				
KENWOOD / BLUE JAY CT			EAST	X			
TRINITY / REBECCA			NORTH	X			
TRINITY / WEBBER			EAST				
SCHOOL / RONALD			EAST	X			
SCHOOL / THELMA			EAST				
SCHOOL / CHISM CT			NORTH				

APPENDIX F

SPILL EMERGENCY RESPONSE PLAN

CITY OF FORTUNA

SPILL EMERGENCY RESPONSE PLAN

Prepared for:

City of Fortuna
180 Dinsmore Drive
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August 2023

Prepared by:
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of

Freshwater Environmental Services

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1.0 INTRODUCTION

The purpose of this Spill Emergency Response Plan (SERP) is to support an orderly and effective response to Sanitary Sewer Overflows (SSOs). The SERP provides guidelines for responding to, cleaning up, and reporting SSOs that may occur within the collection system service area. Fortuna's response to a Sewer System Overflow (SSO) is based on the risk that the SSO may result in endangerment to human health or the environment, prioritizing that response to those locations, and using all available resources to address the SSO. High risk SSOs are discharges in any location which pose an imminent and substantial endangerment to public health or the environment.

1.1 Regulatory Requirements for the Spill Emergency Response Plan

State Water Resources Control Board ORDER WQ 2022-0103-DWQ requires Fortuna to develop and implement a SERP that identifies measures to protect public health and the environment. The City shall respond to spills from its system(s) in a timely manner that minimizes water quality impacts and nuisance by:

- Immediately stopping the spill and preventing/minimizing a discharge to waters of the State;
- Intercepting sewage flows to prevent/minimize spill volume discharged into waters of the State;
- Thoroughly recovering, cleaning up and disposing of sewage and wash down water; and
- Cleaning publicly accessible areas while preventing toxic discharges to waters of the State.

At a minimum, this 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 this 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 including, traffic control, maintain appropriate public notification signs and barricades, 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 this General Order; and
- Annually, review and assess effectiveness of the Spill Emergency Response Plan, and update the Plan as needed.

The City's overflow response requires full, immediate, and appropriate attention with the ultimate goal of minimizing impacts to public health and safety and the environment. Telephone calls to report overflows or other maintenance problems are answered 24-hours per day, 7-days per week. Crew leaders are immediately notified upon receipt of a reported sewage overflow and are instructed to respond immediately. Crew leaders are responsible for assessing the overflow, notifying supervisors, documenting the overflow, estimating the volume of the overflow, sampling and laboratory analysis, posting warning signs and following up.

The highest priorities are to contain the overflow and to minimize or eliminate the volume of overflow that reaches the storm drain system, and to minimize or eliminate exposure to the public and impact on public health. The City's objectives are designed to protect public health and safety, meet all regulatory reporting requirements, and ensure immediate and effective response.

1.2 Goals

The City's goals with respect to responding to SSOs are:

- Respond quickly to minimize the volume of the SSO;
- Eliminate the cause of the SSO;
- Contain the spilled wastewater to the extent feasible;
- Minimize public contact with the spilled wastewater;
- Mitigate the impact of the SSO; and
- Meet the regulatory reporting requirements.

2.0 SSO NOTIFICATION PROCEDURE

The processes that are employed to notify the City of the occurrence of an SSO include: observation by the public, receipt of an alarm, or observation by City Staff during the normal course of their work. This SERP includes the procedures for receiving sewage overflow/backup reports.

Public Observation

Public observation is the most common way that the City is notified of blockages and spills. During business hours calls are received at City Hall (707) 725-7600, the Public Works office (707) 725-1471 or the Fortuna Police Station (707) 725-7550. City Hall and City Police staff are trained to collect crucial information and then to contact the Public Works sewer crew. Public Works staff are trained to collect crucial information and then to contact the dispatch so a sewer crew can be mobilized.

After hours, calls to City Hall receive a pre-recorded message giving the phone number of the police department for emergencies. Calls to Public Works after hours are forwarded to the police department. The police department is trained on how to respond and will contact the on-call Utility crew member.

Receipt of Alarm

The City's lift stations have alarm systems that automatically signal alarms to the wastewater treatment plant Supervisory Control and Data Acquisition (SCADA) computer which notifies the on-duty WWTP operator. If the on-duty Cell Phone is unanswered, the automatic system will wait for 5 minutes and redial the on-duty Cell Phone. If unanswered a second time the automatic system will call the WWTP Shift Supervisor. If the WWTP Shift Supervisor does not answer, the automatic system will wait for 5 minutes and redial the WWTP Shift Supervisor. If unanswered a second time the automatic system will call the Chief Treatment Plant Operator. If the Chief Treatment Plant Operator does not answer, the automatic system will wait for 5 minutes and redial the Chief Treatment Plant Operator. If unanswered a second time the automatic system will call the Fortuna Police Department dispatch.

If the SCADA system in the wastewater treatment plant control room receives an alarm during working hours, staff will respond to the alarm and notify the Shift Supervisor, Chief Treatment Plant Operator, and/or the Utilities Superintendent.

City Staff Observation

City staff conduct periodic inspections of its sewer system facilities as part of their routine activities. Any problems noted with the sewer system facilities are reported to appropriate City staff who respond to emergency situations. The City of Fortuna is developing a detailed preventive maintenance program on its sewer collection system infrastructure that could potentially prevent future SSOs.

2.1 External SSO Notification and Reporting Requirements

Category 1 SSOs

A Category 1 spill is a spill of **any volume of sewage** from or caused by a sanitary sewer system regulated under this General Order **that results in a discharge** to:

- A **surface water**, including a surface water body that contains no flow or volume of water; or
- 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.

1. Call **Humboldt Environmental Health** at**: (707) 445-6215**.

Category 1 SSO **greater than or equal to 1,000 gallons** (discharged to surface water or spilled in a location where it probably will be discharged to surface water), the Utilities Superintendent shall notify the State Office of Emergency Services (OES) (and obtain a Spill Control Number) following, but ***not later than 2 hours after becoming aware of the discharge:***

2. Call Cal OES at: **(800) 852-7550**

Cal OES forwards the SSO notification information to local government agencies and first responders including local public health officials and the applicable Regional Water Quality Control Board. Receipt of notifications for a single SSO event from both the SSO reporter and Cal OES is duplicative.

2.2 External SSO Reporting Requirements

Category 1 SSO: Submit draft report within three business days of becoming aware of the SSO and certify within **3 business days of SSO** end date. **Within 15 calendar days** of the spill end date, the Enrollee shall submit a Certified Spill Report for Category 1 spills.

Category 1 SSOs in which **50,000 gallons or greater** are discharged, **within 45 calendar days** of the spill end date, the Enrollee shall submit a **Spill Technical Report** to the online California Integrated Water Quality System (CIWQS) Sanitary Sewer System Database. Water sampling is required as described in Section 3.7. Data from this sampling will be made available to the Public at the City's office and the CIWQS database website.

The Enrollee shall update or add additional information to a Certified Spill Report within **90 calendar days** of the spill end date by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

Category 2 SSOs

A Category 2 spill is a spill of **1,000 gallons or greater**, from or caused by a sanitary sewer system regulated under this General Order that **does not discharge to a surface water.**

A Category 2 spill is a spill of 1**,000 gallons or greater**, from or caused by a sanitary sewer system regulated under this General Order that threatens discharge to waters of the state, the Utilities Superintendent shall notify the State Office of Emergency Services (and obtain a Spill Control Number) following, but ***not later than 2 hours after becoming aware of the discharge:***

1. Call Cal OES at: **(800) 852-7550**

Within three (3) business days of the Enrollee's knowledge of a Category 2 spill, the Enrollee shall submit a Draft Spill Report to the online CIWQS Sanitary Sewer System Database.

Within 15 calendar days of the spill end date, the Enrollee shall submit a Certified Spill Report for the Category 2 spill, to the online CIWQS Sanitary Sewer System Database.

The Enrollee shall update or add additional information to a Certified Spill Report within **90 calendar days** of the spill end date by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

Category 3 SSOs

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 this General Order that **does not discharge to a surface water**.

The Enrollee shall **report and certify** all Category 3 spills to the online CIWQS Sanitary Sewer System Database **within 30 calendar days** after the end of the month in which the spills occurred.

Within 90 calendar days of the certified Spill Report due date, the Enrollee may update or add additional information to a certified Spill Report by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

Category 4 SSOs

A Category 4 spill is a spill of **less than 50 gallons**, from or caused by a sanitary sewer system regulated under this General Order that does not discharge to a surface water.

The Enrollee shall **report and certify** the estimated total spill volume exiting the sanitary sewer system, and the total number of all Category 4 spills to the online CIWQS Sanitary Sewer System Database, **within 30 calendar days** after the end of the month in which the spill occurred.

Within 90 calendar days of the certified Spill Report due date, the Enrollee may update or add additional information to a certified Spill Report by amending the report or by adding an attachment to the Spill Report in the online CIWQS Sanitary Sewer System Database. The Enrollee shall certify the amended report.

Voluntary Reporting of Spills from Privately-Owned Sewer Laterals and/or Private Sanitary Sewer Systems

Private Lateral Sewer Discharges (PLSDs): PLSDs that the enrollee becomes aware of may be voluntarily reported to the CIWQS online SSO Database.

Within 24 hours of becoming aware of a PLSD greater than 1,000 gallons that discharges (or has a potential to discharge) to a water of the State, or a drainage conveyance system that discharges to waters of the State; or any volume of sewage that discharges (or has a potential to discharge) to surface waters, from a sewer system that is not owned/operated by the Enrollee, the Enrollee is encouraged to report the observations to the online CIWQS database.

If either (1) no spills occur during a calendar month or (2), only Category 4, and/or Enrollee-owned and/or operated lateral spills (that do not discharge to a surface water) occur during a calendar month, the Enrollee shall certify, within 30 calendar days after the end of each calendar month, either a "No-Spill" certification statement, or a "Category 4 Spills" and/or "Non-Category 1 Lateral Spills" certification statement, in the online CIWQS Sanitary Sewer System Database.

All enrollees shall update their previous year's Annual Report, **by April 1 of each year after the Effective Date of this General Order,** for each calendar year (January 1 through December 31)**.**

3.0 SSO RESPONSE PROCEDURES

Sewer service calls and lift station alarms are considered high priority events that demand a prompt response to the location of the problem. The goal of the Spill Emergency Response Plan is to protect the public from hazards, identify the source of the overflow and determine ownership, perform cleanup and abatement, complete proper reporting procedures and provide good customer service. The SERP provides detailed response procedures for the first responder and field crew responsible for identifying the source of the problem, correcting the cause of the overflow, and cleaning the surrounding area.

A reporting form to be completed by the first responder is included in Appendix A.

3.1 Priorities

The first responder's priorities are:

- To follow safe work practices;
- To respond promptly with the appropriate equipment;
- To contain the spill wherever feasible;
- To restore the flow as soon as practicable;
- To minimize public access to and/or contact with the spilled sewage;
- To promptly notify the Utilities Superintendent or CPO in the event of any SSO;
- To return the spilled sewage to the sewer system; and
- To restore the area to its original condition (or as close as possible).

3.2 Safety During Response

The first responder is responsible for following safety procedures on all jobs. Special safety precautions must be observed when performing sewer work. There may be times when City personnel responding to a sewer system event are not familiar with potential safety hazards peculiar to sewer work. In such cases, it is appropriate to take the time to discuss safety issues, consider the order of work, and check safety equipment before starting the job.

The first responder must assess the scene for hazards to the responders and/or the public. After completing the job hazard analysis, the responder will:

- Utilize control devices such as signs, cones, delineators, lights, barricades, when work encroaches in lane(s) of traffic, or in an area subject to pedestrian or vehicle traffic;
- Utilize Personal Protection Equipment such as gloves; hardhat; safety glasses; safety vest; and splash goggles as needed; and
- Utilize proper lifting, pulling and bending techniques when removing a sanitary sewer access cover to protect the responders back.

3.3 Initial Response

The first responder must respond to the reported location or lift station site and visually check for potential sewer stoppages or overflows. All sewer system calls require a response to the reported location of the event. The first responder will:

- Note arrival time at spill site;

- Verify the existence of a sewer system spill or backup;
- Identify and assess the affected area and extent of spill;
- Contact caller if time permits; and
- Notify the Utilities Superintendent or CPO in the event of any SSO.

The SSO is considered major if the following conditions are present:

- The spill appears to be large, in a sensitive area, or there is doubt regarding the extent, impact, or how to proceed;
- The spill is in a public roadway and help with traffic control is needed to protect workers and the public; or
- If additional help is needed. The Utilities Superintendent or CPO will contact other employees, contractors, and/or equipment suppliers.

If the spill is large or in a sensitive area, the responder will document conditions with photographs as time allows. During the response to a major SSO City staff will need to decide whether to proceed with actions to restore the flow or to initiate containment measures. The guidance for this decision is:

- Small spills – proceed with restoring flow;
- Moderate or large spill where containment is anticipated to be simple – proceed with the containment measures; or
- Moderate or large spills where containment is anticipated to be difficult – proceed with restoring flow; however, call for additional assistance after 15 minutes without restoration of flow and implement containment measures.

If an SSO occurs near sensitive areas such as near storm drains or creeks, immediate actions will be taken to prevent the discharge from entering the waters of the state.

3.4 Initial Spill Containment Measures

The first responder should attempt to contain the spilled sewage using the following steps:

- Determine the immediate destination of the overflowing sewage;
- Plug storm drains using air plugs, sandbags, and/or plastic mats to contain the spill, whenever appropriate. If overflowing sewage has entered the storm drainage system during dry weather, attempt to contain the spilled sewage by plugging downstream storm drainage facilities;
- Contain/direct the spilled sewage using dike/dam, sandbags, or absorbent socks; and
- Pump around the blockage/pipe failure/lift station.

3.5 Recovery and Cleanup

The recovery and cleanup phase begins when the flow has been restored and the overflow of sewage has been stopped. The City can use contract services for recovery and cleanup actions. Typically, the SSO recovery and cleanup procedures include an estimate of spill volume, recovery of spilled sewage and cleanup and disinfection of the area.

Estimate the Volume of Spilled Sewage

Wherever possible, document the estimate using photos of the SSO site before the recovery operation. Various detailed methods of spill volume estimating are included in Appendix C.

Recovery of Spilled Sewage

Vacuum or pump the spilled sewage and discharge it back into the sanitary sewer system.

Cleanup and Disinfection

Cleanup and disinfection procedures should be implemented to reduce the potential for human health issues and adverse environmental impacts that are associated with an SSO event. The procedures described are for dry weather conditions and should be modified as required for wet weather conditions. Where cleanup is beyond the capabilities of City staff, a cleanup contractor will be used.

Cleanup Involving Private Property

- Offer assistance with cleanup and advise resident or property owner of claim procedures; and
- Contact insurance for damage assessment.

Cleanup of Hard Surface Areas

- Collect all signs of sewage solids and sewage-related material either by hand or with the use of rakes and brooms;
- Wash down the affected area with clean water until the water runs clear. Take reasonable steps to contain and vacuum up the wash water;
- Disinfect all areas that were contaminated from the overflow using a disinfectant solution. Apply minimal amounts of the disinfectant solution using a hand sprayer. Document the volume and application method of disinfectant that was employed; and
- Allow area to dry. Repeat the process if additional cleaning is required.

Cleanup of Landscaped and Unimproved Natural Vegetation

- Collect all signs of sewage solids and sewage-related material either by hand or with the use of rakes and brooms;
- Wash down the affected area with clean water until the water runs clear. The flushing volume should be approximately three times the estimated volume of the spill;
- Either contain or vacuum up the wash water so that none is released; and
- Allow the area to dry. Repeat the process if additional cleaning is required.

Steps for Cleanup of Natural Waterways

- The Northern Region 1, (707) 445-6493 (Eureka) or Redding (530) 225-2300 Department of Fish and Wildlife should be notified in the event an SSO impacts any surface water or riparian habitat. Department of Fish and Wildlife will provide the professional guidance needed to effectively cleanup spills that occur in these sensitive environments;

- Cleanup should proceed quickly in order to minimize negative impact. Sewage causes depletion of dissolved oxygen which will kill aquatic life; and
- Any water that is used in the cleanup should be de-chlorinated prior to use (chlorine compounds are toxic to aquatic life).

Wet Weather Cleanup Modifications

- Omit flushing and sampling during heavy storm events with heavy runoff where flushing is not required, and sampling would not provide meaningful results.

3.6 Public Notification

Post signs and place barricades to keep vehicles and pedestrians away from contact with spilled sewage. Do not remove the signs until directed by the Utilities Superintendent or CPO.

Creeks and streams that have been contaminated as a result of an SSO should have signs posted at visible access locations until the risk of exposure has subsided to acceptable background levels. The warning signs should be checked every day to ensure that they are still in place.

In the event that an overflow occurs at night, the location should also be inspected the following day. The wastewater staff should look for any signs of sewage solids and sewage-related material that may warrant additional cleanup activities.

Major spills may warrant broader public notice. The Utilities Superintendent or CPO will contact the Director of Public Works who will coordinate contact with local media when significant areas may have been contaminated by sewage.

3.7 Water Quality Sampling and Testing

Water quality sampling and testing is required whenever **50,000 gallons or more** of spilled sewage enters surface water to determine the extent and impact of the SSO. The water quality sampling procedures are:

- The first responder will collect samples if required. Samples should be collected as soon as possible after the discovery of the SSO event.
- The water quality samples should be collected from upstream of the spill, from the spill area, and downstream of the spill in flowing water (e.g. creeks). The water quality samples should be collected near the point of entry of the spilled sewage and every 100 feet along the shore on impoundments (e.g. ponds).
- The City's laboratory and contract laboratory will analyze the samples to determine the nature and extent of the discharge. Additional samples will be taken to determine when posting of warning signs can be discontinued. The basic analyses should include total coliform, fecal coliform, biochemical oxygen demand (BOD), dissolved oxygen, and ammonia nitrogen.

4.0 SSO INVESTIGATION AND DOCUMENTATION

All SSOs should be thoroughly investigated and documented for use in managing the sewer system and meeting established reporting requirements. The procedures for investigating and documenting SSOs include a failure analysis investigation, SSO documentation, and post-SSO debriefing.

Failure Analysis Investigation

The objective of the failure analysis investigation is to determine the "root cause" of the SSO and to identify corrective action(s) needed that will reduce or eliminate future potential for the SSO to recur.

The investigation should include reviewing all relevant data to determine appropriate corrective action(s) for the line segment. The investigation should include:

- Reviewing and completing the SSO reporting Form (Appendix B);
- Reviewing past maintenance records;
- Reviewing available photographs;
- Conducting inspections to determine the condition of the line segment immediately following the SSO and reviewing the video and logs; and
- Interviewing staff who responded to the spill.

The product of the failure analysis investigation should be the determination of the root cause and the identification of the corrective actions.

SSO Documentation

The first responder will complete the Sanitary Sewer Overflow Reporting Form in Appendix A.

The Utilities Superintendent or CPO will prepare a file for each individual SSO. The file should include the following information:

All SSOs

- Initial service calls information;
- Sanitary Sewer Overflow Reporting Form;
- Failure analysis investigation results; and
- SWRCB California Integrated Water Quality System (CIWQS) Report(s).

Large SSOs and/or SSOs to sensitive areas

- Volume estimate;
- Appropriate maps showing the spill location;
- Photographs of spill location; and
- Water quality sampling and test results.

Post SSO Event Debriefing

Every SSO event is an opportunity to thoroughly evaluate the response and reporting procedures. Each overflow event is unique, with its own elements and challenges including volume, cause, location, terrain, and other parameters.

As soon as possible after major SSO events, all of the participants, from the person who received the call to the last person to leave the site, should meet to review the procedures used and to discuss what worked and where improvements could be made in responding to and mitigating future SSO events. The results of the debriefing will be recorded and tracked to ensure the action items are completed.

5.0 EQUIPMENT AND TRAINING

This section provides a list of specialized equipment that is required to support this Spill Emergency Response Plan.

Digital Cell Phones/Cameras

A digital camera is required to record the conditions upon arrival, during cleanup, and upon departure.

Utility Trucks

Utility body pickup trucks are required to store and transport the equipment needed to effectively respond to sewer emergencies. The equipment and tools should include spilled sewage containment and cleanup materials.

Portable Pumps and Hoses

Portable pumps and piping will be used to pump around failed facilities and to recover spilled sewage. Additional portable pumps and hoses are available through local rental agencies or contractors.

VAC-Con® Truck

A VAC-Con® truck equipped with a high-pressure rodder is available to respond to SSOs if necessary.

Spill Response Supplies

Spill response supplies and personal protective equipment are stored at the wastewater treatment plant and at the City's Corporation Yard. Spill response supplies includes booms, pads, absorbents, brooms, rakes. Personal protective equipment including gloves, boots, and other supplies are kept with the spill response supplies so that they are easy to locate during a response.

5.1 Training

This section provides information on the training that is required to support this Spill Emergency Response Plan.

Initial and Annual Refresher Training

All wastewater personnel and contractors who have a role in responding to, reporting, and/or mitigating a sewer system overflow will receive training. This includes employees who serve as the afterhours on-call maintenance crew member. All new employees and contractors receive training before they are placed in a position where they may have to respond. Current employees receive annual refresher training on this plan and the procedures to be followed. Training support documents are in Appendix D.

SSO Response Drills

Periodic training drills are held to ensure that employees and contractors are up to date on the procedures, the equipment is in working order, and the required materials are readily available. The training drills should cover scenarios typically observed during sewer related emergencies (e.g. mainline blockage, mainline failure, force main failure, lift station failure, and lateral blockage). The results and the observations during the drills should be recorded and action items should be tracked to ensure completion. This training

will also include desk simulation of SSO exercises to be incorporated with weekly safety and equipment training.

5.2 Record Keeping

Records should be kept of all training that is provided in support of this plan. The records for all scheduled training courses and for each overflow emergency response training event should include date, place, content, name of trainer(s), and names of attendees. Records for the SSO response training will be maintained by the Utilities Superintendent or CPO.

APPENDIX A

SSO INITIAL ASSESSMENT FORM

Sanitary System Overflow Initial Site Assessment

DATE/TIME CREW ARRIVED:

PROPERTY INFORMATION:

Resident Name: _____ Phone: _____

Street Address: _____ City: _____ Zip: _____

Cross Streets: _____

County: _____ Property Manager: _____ Phone: _____

Total # Residents: _____ Total # Bathrooms: _____ Total # Affected Rooms: _____

Approx. Age of Home: _____ Previous spills at this location? ☐Yes # _____ ☐ No ☐ Unknown

Backflow Prevention Device (BPD)? ☐Yes ☐ No If BPD present, was it working? ☐Yes ☐ No

Curbside Cleanout? ☐Yes ☐ No If yes: ☐Full ☐ Empty

Recent plumbing work? ☐Yes ☐ No If yes, describe:

Personal property damage? ☐Yes ☐ No If yes, describe:

Immediate health or safety issues? ☐Yes ☐ No If yes, describe:

SPILL INFORMATION

Date/Time Occurred: _____ Approx. Volume (gallons): _____

Volume Calculation Method: _____

Has sewage been sitting? ☐Yes ☐ No If yes, approx. how long? _____

Describe any condition(s) that may have led to the overflow: _____

Photos Clean Areas: _____ ☐Digital ☐ Film Cleaning Contractor: _____

Photos Spill Area: _____ ☐Digital ☐ Film Phone: _____

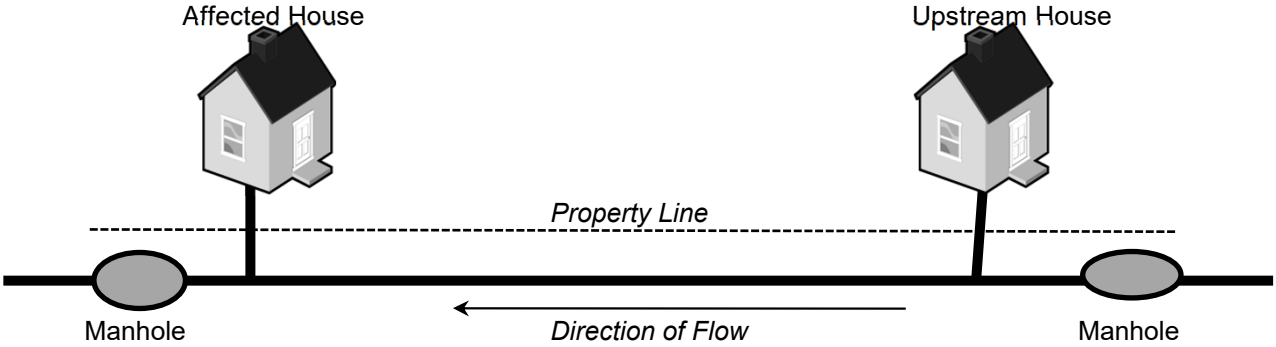
Did resident hire a cleaning contractor? ☐Yes ☐ No Date Called: _____

Did Agency dispatch a cleaning contractor? ☐Yes ☐ No Emergency Cleaning Only? ☐Yes ☐ No

If no, describe additional work by cleaning contractor:

IS NEAREST UPSTREAM MANHOLE VISIBLY HIGHER THAN THE OVERFLOW POINT ☐Yes ☐ No

Place an X on the line where the blockage occurred. Indicate any additional backflow areas.



Did sewage go under buildings:? ☐Yes ☐ No ☐ Unknown

Additional Comments:

Report Completed by: Phone:

Sanitary System Overflow Initial Assessment

Form Instructions

1) Remain calm and professional and show empathy/concern for the resident. If the individual is violent, leave the site and call for assistance.

2) Instruct the resident to take the following precautions to minimize loss and potential health effects, if not already done:
- Keep children, pets and others away from the spill area.
- Move uncontaminated property in clean areas a safe distance from the spill area.
- Do not attempt to enter or remove items from the spill area.
- Do not attempt to clean the sewage/spill area themselves.

3) Clearly communicate that a blockage in the sewer main line will be promptly cleared, but that agency employees are not able to work on blockage in the private property's service lateral line.

4) DO NOT admit or deny liability or make any other statements regarding payments, etc.

5) As soon as cause has been alleviated, contact **Sierra Pacific Loss Management (SPLM):** **800-413-2999**
Request a pre-approved cleaning company to be dispatched.

6) Remain on-scene until **SPLM** representative arrives. If the cleaning contractor arrives first, authorize **EMERGENCY** cleaning only. Any additional work necessary must be approved by the agency rep or claims adjuster.

7) Document <u>all</u> areas completely. Do not track sewage in to clean areas. Do not enter the residence alone. Provide completed documentation and photos to the SPLM representative.

IF ANY OF THE FOLLOWING CIRCUMSTANCES EXIST, ADVISE THE DEPARTMENT DIRECTOR. IMMEDIATE REGULATORY NOTIFICATIONS ARE REQUIRED.

- ✓ Overflow exceeds 1,000 gal.
- ✓ Imminent and substantial danger to human health
- ✓ Fish were killed
- ✓ Spill reaches receiving waters
- ✓ Spill discharged to storm drain, not fully recovered

Sanitary System Overflow Initial Assessment

Form Instructions

1) Remain calm and professional and show empathy/concern for the resident. If the individual is violent, leave the site and call for assistance.

2) Instruct the resident to take the following precautions to minimize loss and potential health effects, if not already done:
- Keep children, pets and others away from the spill area.
- Move uncontaminated property in clean areas a safe distance from the spill area.
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3) Clearly communicate that a blockage in the sewer main line will be promptly cleared, but that agency employees are not able to work on blockage in the private property's service lateral line.

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- ✓ Imminent and substantial danger to human health
- ✓ Fish were killed
- ✓ Spill reaches receiving waters
- ✓ Spill discharged to storm drain, not fully recovered

APPENDIX B

SSO RESPONSE REPORTING GUIDELINES

Fortuna
Spill Emergency Overflow Response
Report Form

This Report is *(check one*): ☐ Preliminary ☐ Final ☐ Revised Final

SPILL LOCATION	
Spill Location Name:	
GPS Latitude Coordinates:	GPS Longitude Coordinates:
Street Name and Number:	Street Direction (e.g., N, S, W, NE, SW, etc.):
Nearest Cross Street:	City: Zip Code:
County:	Spill Location Description:
SPILL DESCRIPTION	
Spill Appearance Point: ☐ Building/Structure ☐ Force Main ☐ Gravity Sewer ☐ Other Sewer System Structure ☐ Pump Station ☐ Manhole- Structure ID#:_____ ☐ Other (specify):	
Did the spill reach a drainage channel and/or surface water? ☐ Yes ☐ No	
If the spill reached a storm sewer, was it fully captured and returned to the Sanitary Sewer? ☐ Yes ☐ No	
Was this spill from a service lateral? ☐ Yes ☐ No If YES, name and address of facility:	
Final Spill Destination: ☐ Beach ☐ Building structure ☐ Other paved surface ☐ Storm drain ☐ Street/curb & gutter ☐ Surface water ☐ Unpaved surface ☐ Other *(specify)*:	
Estimated spill volume (in gallons):	Method calculated:
Est. volume of SSO recovered (gal):	Were photos taken? ☐ No ☐ Yes – how many?
Estimated volume of spill reaching surface water, drainage channel, or not recovered from a storm drain (gal):	
SPILL OCCURRANCE TIME	
SSO Reported to:	SSO Reported by:
Phone:	Estimated spill start date and time:
Date and time spill reported to sewer crew:	Date and time sewer crew arrived:
Estimated spill end date and time:	
Weather conditions prior 72 hours: ☐ Sunny Weather ☐ Cloudy Weather ☐ Measurable Rain ☐ Rain for Several Days	

CAUSE OF SPILL
SSO cause *(check all that apply)*: ☐ Debris/Blockage ☐ Flow exceeded capacity ☐Grease ☐ Operator error ☐ Roots ☐ Pipe problem/failure ☐ Pump station failure ☐ Rainfall exceeded design ☐ Vandalism ☐ Inflow/infiltration ☐ Animal carcass ☐ Electrical power failure ☐ Bypass ☐ Debris from laterals ☐ Construction Debris ☐ Other (specify):
If SSO is caused by a service lateral, please specify: This is the ☐Owner ☐Tenant ☐Manager Property contact: Contact telephone:
If SSO is caused by wet weather, choose size of storm: ☐1-yr ☐2-yr ☐5-yr ☐10-yr ☐50-yr ☐100-yr ☐>100-yr ☐Unknown
Diameter (in inches) of pipe at point of blockage/spill cause (if applicable):
Sewer pipe material at point of blockage/spill cause (if applicable):
Description of terrain surrounding point of blockage/spill cause: ☐ Flat ☐ Mixed ☐ Steep
SPILL RESPONSE
Spill response activities (check all that apply): ☐ Cleaned up ☐ Contained all/portion of spill ☐ TV inspection ☐ Restored flow ☐ Returned all/portion of spill to sanitary sewer ☐Other (specify):
Spill response completed (date & time): Name of impacted waters (if applicable):
Visual inspection result of impacted waters (if applicable):
Any fish killed? ☐ Yes ☐ No Any ongoing investigation? ☐ Yes ☐ No
Name of impacted beach (if applicable): _____Were health warnings posted? ☐ Yes ☐ No
Health warning/beach closure posting/details:
Were samples of impacted waters collected? ☐ Yes ☐ No If YES, select the analyses: ☐ DO ☐ Ammonia ☐ Bacteria ☐ Other
Recommended corrective actions: ☐ Add sewer to PM Program ☐ Adjust PM schedule ☐ Adjust PM method ☐ Rehab sewer ☐ Replace sewer ☐ Enforcement action against FOG source ☐ Other (specify):
NOTIFICATION DETAILS
CEMA (former OES) contacted date and time (if applicable): CEMA (former OES) Control Number (if applicable): Spoke to:

Sanitary System Overflow Regulatory Notice Worksheet

EVALUATE INCIDENT

- Is the estimated volume greater than 1,000 gal.?
- Did overflow reach receiving waters or require samples to be collected?
- Is there evidence of killed fish?
- Was there human contact and/or was a public area affected?
- Was overflow discharged to a storm drain/arroyo and not fully recovered?

NO → Report within 30 days after the end of the occurance month.

YES → Report within 24 hours / Report IMMEDIATELY

REPORT INCIDENT

OVERFLOW CIRCUMSTANCE:	NOTIFICATION REQUIRED TO: OES	RWQCB	SWRCB	Cnty. Health Department	DFG
≥ 1,000 gal.					
Imminently and substantially endangers human health					
Fish have been killed					
Any amount discharged to storm drain; not fully recovered					
Receiving waters reached and/or required sampling					
Posting of public warning signs were required					
ALL SSO Incidents (including incidents when regulatory notices are not otherwise required)					
Optional Report: Incident due to problem in private service lateral					

Contact information for each agency is on the other side of this form.

Sanitary System Overflow Regulatory Notice Worksheet

If you are not authorized to perform regulatory reporting, please notify one of the following agency personnel immediately:

						LRO*
Name:	_____	Phone:	_____ *day*	_____	*after hours*	☐
Name:	_____	Phone:	_____ *day*	_____	*after hours*	☐
Name:	_____	Phone:	_____ *day*	_____	*after hours*	☐

*SWRCB Legally Responsible Official (LRO) is the person authorized to complete and sign SSO reports online.

REGULATORY CONTACT INFORMATION

OES	Governor's Office of Emergency Services	Telephone: 800-852-7550	Volume is ≥ 1,000 gal., human health is substantially and imminently endangered, and/or fish have been killed.	
RWQCB	Regional Water Quality Control Board	Telephone: 916-464-3291	Volume is ≥ 1,000 gal., human health is substantially and imminently endangered, and/or fish have been killed.	
			Reached and/or required sampling of receiving waters, and/or required posting of public warnings	
	Contact Person: (insert name)		Optional Report when caused by a problem in a private service lateral	
SWRCB	State Water Resources Control Board	**LRO only:** Report Online www.swrcb.ca.gov/ciwqs	Volume is ≥ 1,000 gal., human health is substantially and imminently endangered, fish have been killed, discharged to storm drain and not fully recovered, reached and/or required sampling of receiving waters.	
			All overflow and backup incidents, including incidents where other regulatory notice is not required.	
	Incomplete reports must be finished within 15 days.		Optional report when caused by problems in a private service lateral. Provide as much information as possible, indicate cause and identify responsible party.	
Cnty. Health Department	(insert name of county health department)	Telephone: xxx-xxx-xxxx	Volume is ≥ 1,000 gal., human health is substantially and imminently endangered, and/or fish have been killed.	
	Contact Person: (insert name)		Discharged to storm drain and not fully recovered, reached and/or required sampling of receiving waters, and/or required posting of public warnings.	
DFG	Department of Fish and Game, Spill Prevention & Response	24 Hr Dispatch: 916-445-0380	Fish have been killed, reached and/or required sampling of receiving waters.	
	Press "2" to report pollution incident.			

SEWER BACKUP PREVENTION & RESPONSE

INCIDENT REPORTED TO MEMBER

Field Crew Initial Response:

Refer to Response Procedures

- Advise Customer to keep pets, children and others away from spill area
- Initial Assessment/Determine Cause
- Document spill completely with photographs, diagrams, narrative, etc.
  - Do not contaminate unaffected areas
- Always Use the Buddy System when entering private property
- Remain Calm and Professional

Backup is NOT due to Agency's Sewer Line Failure

Inform Customer:

- Agency not responsible
- Crew may not service private lines
- If plumbing work was completed recently, advise to contact plumber
- Recommend using cleaning contractor

Backup is due to a Sewer Line Failure

Field Crew Immediately:

- Relieve cause
- Notify on-call supervisor and **Sierra Pacific Loss Management (SPLM)**. SPLM will call Restoration Firm.
- If Restoration Firm arrives before SPLM, authorize **emergency cleaning only**
- Ensure complete photo documentation of affected and unaffected areas
- Complete Initial Assessment Form

Inform Customer:

- SPLM and Restoration Firm will arrive soon
- Do not attempt to clean affected area yourself
- Do not remove items from affected area

Provide Response Kit and all documentation to Sierra Pacific Loss Management

SPLM

SPLM will:

- Review Scope of Work with Restoration Firm
- Contact George Hills Claims Adjuster and provide Customer contact information, extent of backup, and approved scope of emergency services
- Review documentation to ensure cause and extent of backup is evident
  - Complete Sewer Backup Incident Report
  - Take additional photos, if necessary

Review with Customer:

- Customer Information brochure (including instructions for obtaining a claim form).
- Customer Information Letter & Cleaning Release.
- Hotel Selection & Release Form.
- Only emergency services are authorized in the field.
- Future expenses/questions are referred to the George Hills Claims Adjuster (contact information is included in Customer Information Letter).

If **ANY** of the following circumstances exist:

- Overflow exceeds 1,000 gal.
- Imminent and Substantial danger to human health
- Fish killed
- Spill reaches receiving waters
- Discharged to Storm Drain and not fully recovered

IMMEDIATE REGULATORY NOTIFICATIONS ARE REQUIRED

Complete Regulatory Notifications Worksheet

Forward completed Response Kit to Claims Adjuster

FOR INTERNAL USE ONLY – DO NOT DISTRIBUTE EXTERNALLY

INSTRUCTIONS FOR HANDLING SEWER AND FLOODING LOSSES

A. SEWER and FLOODING LOSSES

1. Process for SSO (Sanitary Sewer Overflow) or Water Main Flooding:

   a. The City/Town receives a call of a SSO or ruptured water main.

   b. For an SSO, the department responds and confirms/denies there is a blockage in the main line and/or lower lateral (if your agency accepts responsibility at that point). Please note, each entity has their own Municipal Code that distinguishes the responsibility of the publicvs. private services. CIRA recommends the agency accept responsibility at the "tap" or "connection point" and main. **Or**
   For water flooding, the department responds and confirms/denies if the flooding is due to an issue in the main line and service line (i.e. rupturedpipe)

   c. If the cause of the loss cannot be immediately determined, error on the side of caution and proceed as if the member entity has liability ***without*** verbal or written acceptance of liability. ***DO NOT discuss liability.*** Obtain information regarding presence and /or functionality of the backflow preventer.

   d. The City/Town's staff will need to complete the initial site assessment form and provide the following information to CIRA (or those working on behalf of CIRA) or the restoration company:

   What was the cause of the blockage or water rupture?
   What areas of the structure were affected?
   Do the occupants need to be relocated? Is there any other pertinent information?

   CIRA (or those working on behalf of CIRA) or the restoration company will need to know:

   What are the names/date of births of ALL occupants?
   Is the occupant the owner or renter? (If the occupant is a renter, the homeowner and occupant will have separate claims).
   Are there any pre-existing health concerns of occupants?

   If emergency services are needed, please contact **Sierra Pacific Loss Management (SPLM)** at the number listed below immediately (they are working on behalf of CIRA):

   Sierra Pacific Loss Management:
   Main Line - (800) 413-2999/707.252.5525
   Doug Thompson – 707.592.9918
   info@splmca.com

PLEASE NOTE: THAT SIERRA PACIFIC LOSS MANAGEMENT WILL HANDLE MOST, IF NOT ALL, OF THE CLAIM IF CONTACTED IMMEDIATELY.

2. If attempts to contact Sierra Pacific are unsuccessful, please contactGeorge Hills staff directly. They have emergency 24/7 numbers and will answer and respond.

George Hills Staff:
Dana Calkins: (916) 333-0575
Parmit Randhawa: (510) 375-1141
Craig Nunn: (916) 378-5772 (Arcata, Eureka, Fortuna & Ft. Bragg)
Edie Yamamura: (707) 602-3149

3. Both Sierra Pacific and George Hills staff have been trained to handle the initial part of a loss and assist any individual(s) who need to be relocated.

The claimant will hear from CIRA (or those acting on behalf of CIRA) as soon as possible to explain the claim process and needs regarding subject claim (relocation process, per diem/meals, etc.).

4. CIRA (or those acting on behalf of CIRA) will obtain all information andwork with the City/Town on providing a claim form.

5. Sierra Pacific will project manage the claim until completion. This will include the following:

Usually within the first hour:

- Arrive onsite and meet with City/Town personnel and/or claimant
- Walk loss with claimant
- Discuss process with claimant
- Collect photographs

Within 30-60 minutes of arrival:

- Review initial scope with restoration contractor
- Determine if relocation is necessary
- If relocation is necessary, make arrangements with pre-approved hotel/motel for stay

Within 24 hours of arrival

- Contact George Hills with pertinent information
- Meet with restoration contractor supervisor and agree on full scope of work
- Meet with rebuild contractor to include the following:
  - Introduce to claimant
  - Discuss scope of work
  - The claimant has the right to have his/her own contractor perform the work, but most will use the general contractor supplied by the City/Town
- Meet with rebuild contractor to include the following:

Following completion of remediation

- Arrange for hygienist to complete clearance testing (bio, mold, asbestos)
- Confirm with restoration contractor that site is ready for rebuild and arrange for them to start work

Throughout project

- Track remediation contractor to confirm that they are on schedule
- Track rebuild contractor to confirm that they are on schedule
- Communicate with claimant to assure that they are made aware of contractor visits, schedules and completion dates
- If claimant is relocated, confirm that they are satisfied with accommodations

Following Project Completion

- Review the following:
  - Emergency services (ES) invoice
  - Hygienist's report/invoice
  - Rebuild contractor's estimate
- Develop submittal package to include:
  - Adjuster's report
  - Statement of loss
  - ES invoice/detail
  - Hygienist's invoice/report
  - Rebuild Contractor's invoice/detail
  - Non-Salvageable list
- Submit package to George Hills for processing

6. Communication with the claimants will be continuous throughout the claim process. CIRA (or those acting on behalf of CIRA) will be available to relocated claimants with any special needs. If there are items that need to bepurchased immediately, CIRA will purchase on their behalf.

7. The restoration company will contract directly with the claimants. The claimant will file a claim with the City/Town. CIRA will work with both and finalize the claim for both mitigation and repairs ***at the conclusion*** of the claim. If it is a largeloss or problems occur, CIRA may advance fees to the restoration company or other approved vendor.

8. Often the only time things go wrong with sewer/water claims is when communication breaks down. There needs to be continuous and constant communication throughout the entire claim process with everyone (the claimant,the restoration company, the City/Town and CIRA).

APPENDIX C

SSO VOLUME ESTIMATION GUIDE

SEWER SPILL ESTIMATION GUIDE

Developed by the Orange County Area Waste Discharge Requirements Steering Committee

Sewer Spill Estimation Guide

A Guide to Estimating Sanitary Sewer Overflow (SSO) Volumes

Developed by the Orange County Area
Waste Discharge Requirements Steering Committee
Orange County, CA

February 18, 2014
Revised May 15, 2014

Acknowledgements

This Sewer Spill Estimation Guide has been compiled through the efforts of members of the Orange County Wastewater Discharge Requirements (WDR) Steering Committee. This committee was originally formed to address the requirements of the original WDR imposed by the California Regional Water Quality Board, Region 8 and later the statewide WDR imposed by the California State Water Resources Control Board. Committee members who assisted in the compilation of this Sewer Spill Estimation Guide are:

Nicholas J. Arhontes	Director Facilities Support Services	Orange County Sanitation District
Peggy Echavarria	Executive Assistant	Orange County Sanitation District
Gene Estrada	Environmental Program Manager	City of Orange
Rob Hamers	District Engineer	Costa Mesa Sanitary District
Robert Kreg	(Former) Director of Support Services	South Coast Water District (Retired)

Disclaimer

This Sewer Spill Estimation Guide is freely offered to agencies to assist the user with the estimation process for a sanitary sewer overflow. Methods used for spill estimation and the estimate itself are solely the responsibility of the agency making the estimate. The authors or contributors to this Sewer Spill Estimation Guide do not accept any responsibility for the spill estimation methods used; their accuracy or any spill estimate determined through the use of this guide. Information found in this guide is commonly available on the internet and is also common practice with many cities and sewering agencies throughout Southern California.

No statewide or national standards issued by a regulatory agency exist at this time.

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SSO Volume Estimation

Accurate flow estimation is essential to determine the volume of a Sanitary Sewer Overflow (SSO). An accurate estimate of an SSO is required for reporting to the California Integrated Water Quality System (CIQWS) and to the local health care agency. The estimated volume of an SSO is used to determine the category of the SSO and can also be used in the calculation of penalties or fines from the State or Regional Water Quality Control Boards in California. Additionally, accurate flow estimation is important to determine the extent of the cleanup and its effectiveness.

Volume estimation is basically the flow rate (gallons per minute) times the amount of time (in minutes) the flow has occurred. Each SSO tends to be unique requiring different strategies for determining the volume of the SSO. Different methods can also be used for the same SSO acting as a check to ensure the most accurate estimate. The method(s) utilized will be determined by several factors including the type of SSO and the personnel responding. Some SSO volumes, due to terrain, rainfall or other factors, can be very difficult for field staff to determine and may require someone with additional expertise. There is no one method that works for all types of SSOs. The following are methods that may be utilized for SSO volume estimation. These methods are effective means of estimating a sewer spill volume during dry weather but may not be effective during rain events.

During rain events, infiltration and/or inflow into the collection system and runoff in the stormwater system, including the curb and gutter, can affect the SSO estimate. When estimating an SSO during a rain event, the SSO estimate is to include only the wastewater that left the collection system and not any waters that the wastewater comingled with after leaving the system. The same is true for any wash down water; although contaminated, the water is not considered part of the SSO estimate. Any water that infiltrated into the collection system upstream of the SSO and subsequently became part of the SSO is included in the SSO volume estimate.

Start Time

Determining the start time for an SSO is one of the most critical, yet can be one of the most difficult, factors to determine. Depending upon the location and time of day, an SSO may occur for some time before it is reported to the City or Agency or it may trickle for an extended period of time before being noticed. What is known is that the SSO started some time before the City or Agency was notified. It is common for SSOs to start and stop as flows in the pipeline routinely rise and fall because most blockages do not entirely block the flow in the pipe. Every effort should be utilized to determine the most accurate start time of each SSO. These efforts may include:

- If possible, contact the person who reported the SSO to determine when they became aware of the SSO.
- Make contact with residences or businesses in the area of the SSO to determine if there were any witnesses that could help establish the start time.
- Conditions change during the SSO. This is particularly true in remote areas out of public view. Initially, there may be an amount of toilet paper and solids around the spill site. This will increase the longer the SSO continues. After a few days to a week, these may form a light brown residue that may turn dark after a few weeks to a month.

Lacking direct evidence supporting a specific start time the operator should rely upon their experience and system flow characteristics based upon observed conditions to establish a reasonable estimated start time for the event. The agency's management staff should review the estimate before being finalized. Methods used to establish the start time should be documented.

Stop Time

The stop time is the time that wastewater stopped overflowing. For manhole covers in low areas, this is noted by water flowing back into the manhole through the vent holes and should be easy to determine by SSO response personnel. Care should be taken to accurately record the time that the SSO stopped.

Photographs

Take photographs of the spill event. Try to include objects of known size in the photographs to give a perspective of the extent of the spill. Photographs should include the initial spill, remediation efforts, clean up, and the spill area after the spill remediation has been completed. Photographs should be maintained with the spill report information.

Flow Rate

The flow rate is the volume of flow per unit time that is escaping from the collection system. SSOs do not always occur at a constant rate. This is because flows into the collection system are not constant and rise and fall throughout the day. Additionally, most blockages are not full blockages. Pressure buildup as the wastewater surcharges in the pipe can cause the blockage to clear or partially clear, resulting in changes to the flow rate.

To make an SSO volume estimate as accurate as possible, the onsite City or Agency employee should note the time and the amount of change of any significant differences in flow noticed during the event. For example, if the employee determines the flow rate escaping from the manhole is 100 gallons per minute when they arrive on scene but noticed that it has dropped to 50 gallons per minute five minutes later, their report should reflect that fact. The estimated flow rate and the time period for that flow rate should be recorded. During any one SSO event there could be multiple flow rates spread over the duration of the SSO.

Volume Estimation Methods

Visual or Eyeball Method

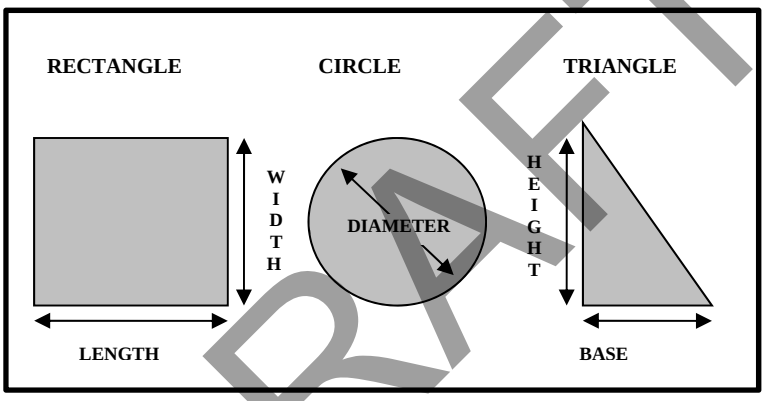
The volume of small spills can be estimated using an “eyeball estimate.” To use this method, imagine the amount of water that would spill from a bucket or a barrel. A full bucket may contain 1, 2 or 5 gallons and a barrel contains 55 gallons when full. If the spill is larger than 55 gallons, try to divide the standing water into barrels and then multiply by 55 gallons. This method is useful for contained spills up to approximately 200 gallons. This method can be useful on spills that occur on hard surfaces such as concrete or asphalt. Crews can be trained

by estimating the volume of a measured amount of potable water spilled upon concrete and asphalt surfaces.

Measured Volume

The volume of most small spills that have been contained can be estimated using this method. The shape, dimensions, and the depth of the contained wastewater are needed. The shape and dimensions are used to calculate the area of the spills and the depth is used to calculate the volume.

Common Shapes and Dimensions



1. Sketch the shape of the contained wastewater.
2. Measure or pace off the dimensions.
3. Measure the depth at several locations and select an average.
4. Convert the dimensions, including depth, to feet.
5. Calculate the area:

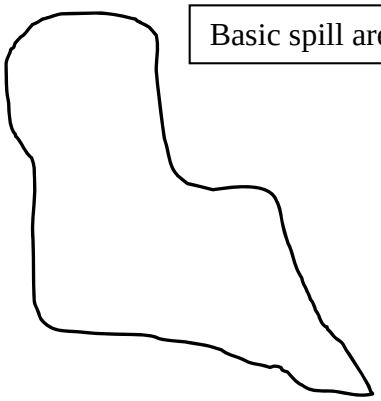
   Rectangle: Area = length (feet) x width (feet)

   Circle: Area = diameter (feet) x diameter (feet) x 3.14 divided by 4

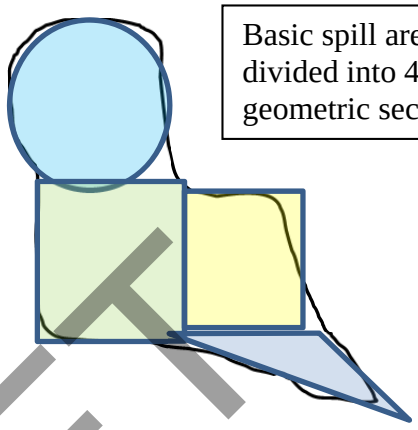
   Triangle: Area = base (feet) x height (feet) x 0.5
6. Multiply the area (square feet) times the depth (in feet) to obtain the volume in cubic feet.
7. Multiply the volume in cubic feet by 7.48 to convert to gallons

Not all SSOs will conform to a specific shape. When this occurs, break up the area of the SSO into various shapes or segments, then calculate the amount of wastewater spilled in each segment, adding them together to arrive at the total spill volume.

Example:

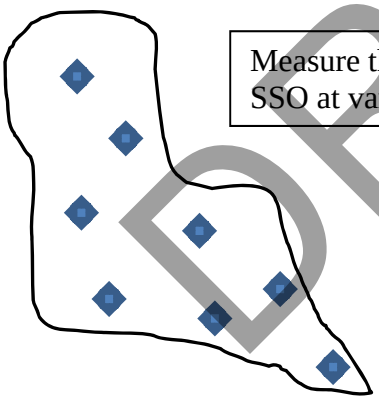


Basic spill area



Basic spill area divided into 4 geometric sections.

Determine the area of each of the geometric sections adding them all together to determine the total area of the spill.



Measure the depth of the SSO at various locations.

Where it is difficult to measure wet spots on asphalt, use a depth of 0.0026'or 1/32". For wet spots on concrete use depths of 0.0013'or 1/64" for reasonable estimates.

Inch to Feet Conversion:

Inches	to	Feet
1/8"	=	0.01'
1/4"	=	0.02'
3/8"	=	0.03'
1/2"	=	0.04'
5/8"	=	0.05'
3/4"	=	0.06'
7/8"	=	0.07'
1"	=	0.08'
2"	=	0.17'
3"	=	0.25'
4"	=	0.33'
5"	=	0.42'
6"	=	0.50'
7"	=	0.58'
8"	=	0.67'
9"	=	0.75'
10"	=	0.83'
11"	=	0.92'
12"	=	1.00'

Sample Calculation:
A 20 ft x 20 ft square wet spot on concrete equals 3.9 gal and for asphalt is 7.8 gal.

Counting Connections

Once the location of the blockage has been established, the amount of the SSO could be estimated by counting the number of upstream connections. On the sewer atlas maps or GIS system, locate the pipeline where the SSO occurred. Count all of the developed parcels that are connected to the pipeline upstream of the blockage. The typical single family residential parcel may discharge 8 to 10 gallons of wastewater per hour during active times of the day. For a multi-family residential development such as an apartment or condo complex, count each apartment as a single family residential unit. Use the higher flow number (10 gallons per hour) during typical peak flow hours and the lower flow number (8 gallons per hour) during low flow periods. Multiply the number of connections times the average flow (8 to 10 gallons per hour) times the time period (duration) that the SSO occurred.

Example for an SSO occurring on a weekday at 8:00am:

Number of upstream connections	22
Estimated flow per parcel	10 gallons per hour
Duration of SSO event	45 minutes
Total spill estimation (22 x 10 x .75)	165 gallons

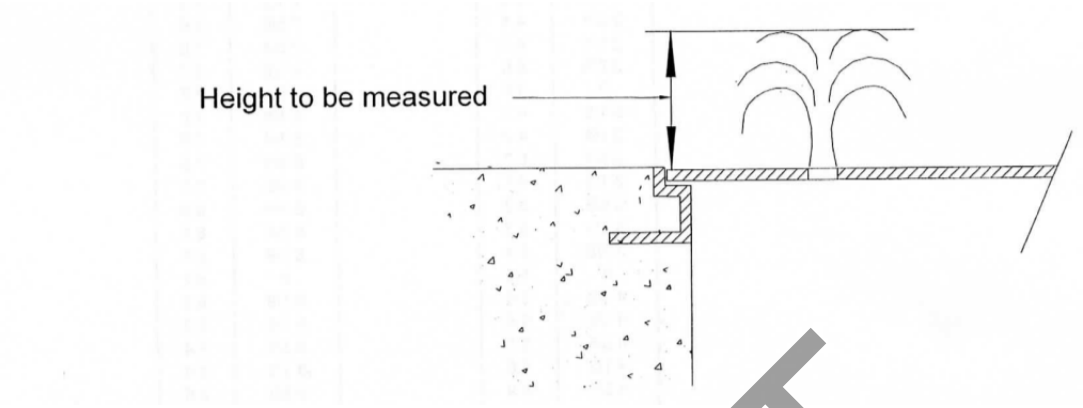
(22 connections x 10 gallons per hour x 45 minutes (.75 hour) = 165 gallons)

Data may be available in your drainage area from your capacity planners at your city or agency. Consult with them on reasonable flow amounts or rates of flow.

Pick and Vent Holes in Manhole Covers

Small SSOs will occur where the wastewater escaping from the manhole is isolated to the pick or vent holes in the cover. Larger SSOs may involve both the discharge from the pick and/or vent holes and the gap between the manhole cover and manhole frame. To estimate an SSO occurring from the manhole pick and vent holes, measure the height of the wastewater plume exiting the holes. Find that height and hole diameter on the manhole pick or vent hole chart to determine the flow rate escaping the pick/vent hole. Multiply the flow rate times the number of holes that are discharging wastewater. Once the total volume (gpm) has been determined,

multiply the gpm by the duration of the SSO in minutes. This will result in the total estimated gallons of the SSO.



Example: Measured height of plume exiting pick/vent hole is 1 inch from a ½-inch vent hole and there are 4 vent holes. The total volume per minute would be .94 gpm per hole (from attached chart) or 3.76 gpm total (.94 gpm x 4 holes) from the manhole cover. If the SSO lasted one hour, the total wastewater lost would be 226 gallons (3.76 x 60 = 225.6).

Number of pick holes	4
Flow from each pick hole	.94 gpm
Duration of SSO	60 minutes
Total SSO volume (.94 x 4 x 60=225.6)	226 gallons

Pick and Vent Hole Estimation Chart

Estimated Flows thru Manhole Cover Vent Holes and Pick Holes for SSO estimating

Hole Dia. inches	Area sq. ft.	Coeff.of Vel. Cv	Coeff. Of Cont. Cc	C Cv x Cc	Water Ht inches	Water Ht inches	Water Ht feet	Q cfs	Q gpm	Q gph
	Formula: =0.785*Ax*Ax/144			Formula: =Ix*449			Formula: =Gx/12	Formula: =Ex*Bx*(SQRT(2*32.2*Hx))	Formula: =Ix*449	Formula: =Jx*60
Vent Hole										
0.50	0.00136	0.945	0.70	0.662	1/16 th	0.063	0.005	0.0005	0.23	14
0.50	0.00136	0.945	0.70	0.662	1/8 th	0.125	0.010	0.0007	0.33	20
0.50	0.00136	0.945	0.70	0.662	1/4 th	0.250	0.021	0.0010	0.47	28
0.50	0.00136	0.945	0.70	0.662	one half	0.500	0.042	0.0015	0.66	40
0.50	0.00136	0.945	0.70	0.662	3/4 ths	0.750	0.063	0.0018	0.81	49
0.50	0.00136	0.945	0.70	0.662	1 inch	1.000	0.083	0.0021	0.94	56
0.50	0.00136	0.945	0.70	0.662	1 1/4 "	1.250	0.104	0.0023	1.05	63
0.50	0.00136	0.945	0.70	0.662	1 3/8"	1.375	0.115	0.0024	1.10	66
0.50	0.00136	0.945	0.70	0.662	1 1/2"	1.500	0.125	0.0026	1.15	69
0.50	0.00136	0.945	0.70	0.662	1 5/8"	1.625	0.135	0.0027	1.20	72
0.50	0.00136	0.945	0.70	0.662	1 3/4"	1.750	0.146	0.0028	1.24	74
0.50	0.00136	0.945	0.70	0.662	2 inches	2.000	0.167	0.0030	1.33	80
0.50	0.00136	0.945	0.70	0.662	2 1/4"	2.250	0.188	0.0031	1.41	84
0.50	0.00136	0.945	0.70	0.662	2 1/2"	2.500	0.208	0.0033	1.48	89
0.50	0.00136	0.945	0.70	0.662	2 3/4"	2.750	0.229	0.0035	1.56	93
0.50	0.00136	0.945	0.70	0.662	3 inches	3.000	0.250	0.0036	1.62	97
0.50	0.00136	0.945	0.70	0.662	3 1/4"	3.250	0.271	0.0038	1.69	101
0.50	0.00136	0.945	0.70	0.662	3 1/2"	3.500	0.292	0.0039	1.75	105
0.50	0.00136	0.945	0.70	0.662	3 3/4"	3.750	0.313	0.0040	1.82	109
0.50	0.00136	0.945	0.70	0.662	4.000	4.000	0.333	0.0042	1.88	113
Vent Hole										
0.75	0.00307	0.955	0.67	0.640	1/16 th	0.063	0.005	0.0011	0.51	31
0.75	0.00307	0.955	0.67	0.640	1/8 th	0.125	0.010	0.0016	0.72	43
0.75	0.00307	0.955	0.67	0.640	1/4 th	0.250	0.021	0.0023	1.02	61
0.75	0.00307	0.955	0.67	0.640	one half	0.500	0.042	0.0032	1.44	87
0.75	0.00307	0.955	0.67	0.640	3/4 ths	0.750	0.063	0.0039	1.77	106
0.75	0.00307	0.955	0.67	0.640	1 inch	1.000	0.083	0.0045	2.04	122
0.75	0.00307	0.955	0.67	0.640	1 1/4 "	1.250	0.104	0.0051	2.28	137
0.75	0.00307	0.955	0.67	0.640	1 3/8"	1.375	0.115	0.0053	2.39	144
0.75	0.00307	0.955	0.67	0.640	1 1/2"	1.500	0.125	0.0056	2.50	150
0.75	0.00307	0.955	0.67	0.640	1 5/8"	1.625	0.135	0.0058	2.60	156
0.75	0.00307	0.955	0.67	0.640	1 3/4"	1.750	0.146	0.0060	2.70	162
0.75	0.00307	0.955	0.67	0.640	2 inches	2.000	0.167	0.0064	2.89	173
0.75	0.00307	0.955	0.67	0.640	2 1/4"	2.250	0.188	0.0068	3.06	184
0.75	0.00307	0.955	0.67	0.640	2 1/2"	2.500	0.208	0.0072	3.23	194
0.75	0.00307	0.955	0.67	0.640	2 3/4"	2.750	0.229	0.0075	3.38	203
0.75	0.00307	0.955	0.67	0.640	3 inches	3.000	0.250	0.0079	3.53	212
0.75	0.00307	0.955	0.67	0.640	3 1/4"	3.250	0.271	0.0082	3.68	221
0.75	0.00307	0.955	0.67	0.640	3 1/2"	3.500	0.292	0.0085	3.82	229
0.75	0.00307	0.955	0.67	0.640	3 3/4"	3.750	0.313	0.0088	3.95	237
0.75	0.00307	0.955	0.67	0.640	4.000	4.000	0.333	0.0091	4.08	245
Vent Hole										
1.00	0.00545	0.960	0.65	0.624	1/16 th	0.063	0.005	0.0020	0.88	53
1.00	0.00545	0.960	0.65	0.624	1/8 th	0.125	0.010	0.0028	1.25	75
1.00	0.00545	0.960	0.65	0.624	1/4 th	0.250	0.021	0.0039	1.77	106
1.00	0.00545	0.960	0.65	0.624	one half	0.500	0.042	0.0056	2.50	150
1.00	0.00545	0.960	0.65	0.624	3/4 ths	0.750	0.063	0.0068	3.06	184
1.00	0.00545	0.960	0.65	0.624	1 inch	1.000	0.083	0.0079	3.54	212
1.00	0.00545	0.960	0.65	0.624	1 1/4 "	1.250	0.104	0.0088	3.96	237
1.00	0.00545	0.960	0.65	0.624	1 3/8"	1.375	0.115	0.0092	4.15	249
1.00	0.00545	0.960	0.65	0.624	1 1/2"	1.500	0.125	0.0097	4.33	260
1.00	0.00545	0.960	0.65	0.624	1 5/8"	1.625	0.135	0.0100	4.51	271
1.00	0.00545	0.960	0.65	0.624	1 3/4"	1.750	0.146	0.0104	4.68	281
1.00	0.00545	0.960	0.65	0.624	2 inches	2.000	0.167	0.0111	5.00	300
1.00	0.00545	0.960	0.65	0.624	2 1/4"	2.250	0.188	0.0118	5.31	318
1.00	0.00545	0.960	0.65	0.624	2 1/2"	2.500	0.208	0.0125	5.59	336
1.00	0.00545	0.960	0.65	0.624	2 3/4"	2.750	0.229	0.0131	5.87	352
1.00	0.00545	0.960	0.65	0.624	3 inches	3.000	0.250	0.0136	6.13	368

Pick and Vent Hole Estimation Chart - continued

Estimated Flows thru Manhole Cover Vent Holes and Pick Holes for SSO estimating

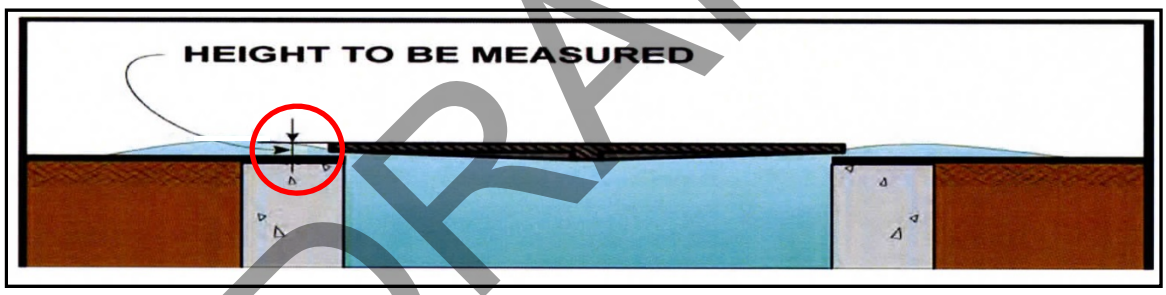
Hole Dia. inches	Area sq. ft.	Coeff.of Vel. Cv	Coeff. Of Cont. Cc	C Cv x Cc	Water Ht inches	Water Ht inches	Water Ht feet	Q cfs	Q gpm	Q gph
	Formula: =0.785*Ax*Ax/144			Formula: =Ix*449			Formula: =Gx/12	Formula: =ExBx*(SQRT(2*32.2*Hx))	Formula: =Ix*449	Formula: =Jx*60
Vent Hole										
1.00	0.00545	0.960	0.65	0.624	3 1/4"	3.250	0.271	0.0142	6.38	383
1.00	0.00545	0.960	0.65	0.624	3 1/2"	3.500	0.292	0.0147	6.62	397
1.00	0.00545	0.960	0.65	0.624	3 3/4"	3.750	0.313	0.0153	6.85	411
1.00	0.00545	0.960	0.65	0.624	4.000	4.000	0.333	0.0158	7.08	425
Pick Hole semicircular area										
1.00	0.00273	0.960	0.65	0.624	1/16 th	0.063	0.005	0.0010	0.44	27
1.00	0.00273	0.960	0.65	0.624	1/8 th	0.125	0.010	0.0014	0.63	38
1.00	0.00273	0.960	0.65	0.624	1/4 th	0.250	0.021	0.0020	0.89	53
1.00	0.00273	0.960	0.65	0.624	one half	0.500	0.042	0.0028	1.25	75
1.00	0.00273	0.960	0.65	0.624	3/4 ths	0.750	0.063	0.0034	1.53	92
1.00	0.00273	0.960	0.65	0.624	1 inch	1.000	0.083	0.0039	1.77	106
1.00	0.00273	0.960	0.65	0.624	1-1/2 inch	1.500	0.125	0.0048	2.17	130
1.00	0.00273	0.960	0.65	0.624	2 inches	2.000	0.167	0.0056	2.51	150
1.00	0.00273	0.960	0.65	0.624	2 1/4"	2.250	0.188	0.0059	2.66	159
1.00	0.00273	0.960	0.65	0.624	2 1/2"	2.500	0.208	0.0062	2.80	168
1.00	0.00273	0.960	0.65	0.624	2 3/4"	2.750	0.229	0.0065	2.94	176
1.00	0.00273	0.960	0.65	0.624	3 inches	3.000	0.250	0.0068	3.07	184
1.00	0.00273	0.960	0.65	0.624	3 1/4"	3.250	0.271	0.0071	3.19	192
1.00	0.00273	0.960	0.65	0.624	3 1/2"	3.500	0.292	0.0074	3.31	199
1.00	0.00273	0.960	0.65	0.624	3 3/4"	3.750	0.313	0.0076	3.43	206
1.00	0.00273	0.960	0.65	0.624	4.000	4.000	0.333	0.0079	3.54	213

Courtesy of OCSD: Created 5/17/99 and modified 5/15/14, as an estimating tool for field staff. This is based on flow through orifices assumptions. Your city or agency may want to develop a similar tool.

Q=CA(2gh)^.5 Where Q=cfs C=Cv x Cc A=area(sq. ft.) g=32.2 ft/sec/sec h= water height (ft.)

Manhole Ring

Some manhole covers in use today typically only have one pick hole forcing most of the wastewater to escape from the perimeter of the manhole cover during higher flow SSOs. To estimate the volume in this example, measure the observed height of the wastewater plume exiting the manhole cover. Find the height and manhole diameter on the Manhole with Cover in Place to determine the flow rate escaping the manhole. The chart has two columns, one for 24-inch diameter covers and one for 36-inch diameter covers. Wastewater will also be escaping from the pick hole and must be accounted for separately by following the instructions for estimating an SSO from pick/vent hole. Multiply the flow rate times the number of holes that are discharging. The total estimated rate (gpm) is determined by adding together the rate being lost (gpm) from around the cover with the rate being lost (gpm) from the pick and/or vent hole(s). Once the total rate (gpm) has been determined, multiply the gpm by the duration of the SSO in minutes. This will result in the total estimated gallons of the SSO.



Example: The measured height of the plume exiting the ring of a 36-inch manhole is 1 inch. The total volume per minute would be 13 gpm from around the ring of a 36-inch manhole cover (from the attached chart). (Calculate the amount exiting the pick hole(s) and add to the total being lost around the ring). If the SSO lasted one hour the total wastewater lost would be 780 gallons (13 x 60 = 780).

Estimated loss around ring (from chart)	13 gpm
Duration of SSO	60 minutes
Total SSO (without loss from pick hole)	780 gallons

(13 gal/min x 60 minutes = 780 gallons plus amount lost from pick hole(s))

ESTIMATED SSO FLOW OUT OF MH WITH COVER IN PLACE

24" COVER

Height of spout above M/H rim H in inches	S S O FLOW Q in gpm	in MGD	Min. Sewer size in which these flows are possible
1/4	1	0.001	
1/2	3	0.004	
3/4	6	0.008	
1	9	0.013	
1 1/4	12	0.018	
1 1/2	16	0.024	
1 3/4	21	0.030	
2	25	0.037	
2 1/4	31	0.045	
2 1/2	38	0.054	
2 3/4	45	0.065	
3	54	0.077	
3 1/4	64	0.092	
3 1/2	75	0.107	
3 3/4	87	0.125	
4	100	0.145	
4 1/4	115	0.166	
4 1/2	131	0.189	
4 3/4	148	0.214	
5	166	0.240	
5 1/4	185	0.266	
5 1/2	204	0.294	
5 3/4	224	0.322	6"
6	244	0.352	
6 1/4	265	0.382	
6 1/2	286	0.412	
6 3/4	308	0.444	
7	331	0.476	
7 1/4	354	0.509	
7 1/2	377	0.543	
7 3/4	401	0.578	8"
8	426	0.613	
8 1/4	451	0.649	
8 1/2	476	0.686	
8 3/4	502	0.723	
9	529	0.761	

36" COVER

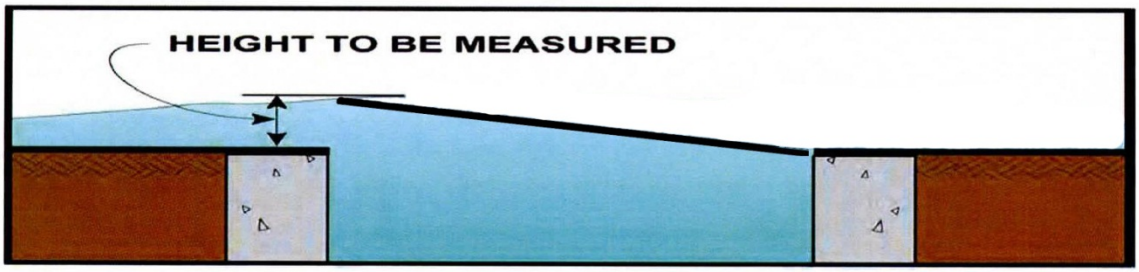
Height of spout above M/H rim H in inches	S S O FLOW Q in gpm	in MGD	Min. Sewer size in which these flows are possible
1/4	1	0.002	
1/2	4	0.006	
3/4	8	0.012	
1	13	0.019	
1 1/4	18	0.026	
1 1/2	24	0.035	
1 3/4	31	0.044	
2	37	0.054	
2 1/4	45	0.065	
2 1/2	55	0.079	
2 3/4	66	0.095	
3	78	0.113	
3 1/4	93	0.134	
3 1/2	109	0.157	
3 3/4	127	0.183	
4	147	0.211	
4 1/4	169	0.243	
4 1/2	192	0.276	
4 3/4	217	0.312	6"
5	243	0.350	
5 1/4	270	0.389	
5 1/2	299	0.430	
5 3/4	327	0.471	
6	357	0.514	
6 1/4	387	0.558	8"
6 1/2	419	0.603	
6 3/4	451	0.649	
7	483	0.696	
7 1/4	517	0.744	
7 1/2	551	0.794	
7 3/4	587	0.845	10"
8	622	0.896	
8 1/4	659	0.949	
8 1/2	697	1.003	
8 3/4	734	1.057	
9	773	1.113	

The formula used to develop Table 1 measures the maximum height of the water coming out of the maintenance manhole above the rim. The formula was taken from Hydraulics and Its Application by A.H. Gibson (Constable & Co. Limited).

Partially Covered Manhole

Sometimes an SSO will occur that only lifts one side of the manhole cover. This is especially true of manholes where the cover is on an incline with the cover lifting on the downward side of the manhole. To estimate the volume of an SSO under these conditions, calculate the area (in square feet) from where the wastewater is escaping and the velocity (in feet per second) that the wastewater is normally traveling in the sewer at half the pipe depth. The velocity is estimated from visual observation with 2 feet/second or less being a small velocity, 4 to 5 feet/second being a medium velocity, and 7 feet/second or higher being a large velocity. Velocities in the sewer above 7 feet/second may be strong enough to blow the manhole cover off. Higher velocities also tend to raise the manhole lid higher. Next, multiply by the duration

(in seconds) that the SSO occurred. Finally, multiply by 7.48 to determine the volume of the SSO in gallons. The formula is Volume (gallons) = Area (sq. ft.) x Velocity (ft/sec) x Time (in seconds) x 7.48 (gal/cu. ft.).



Example: The measured height of the plume exiting the side ring of a 24-inch manhole is 2 inches. Based upon the data provided in the Area Calculation Chart below, a 2-inch plume from one side of a 24-inch manhole cover provides 0.524 square feet of area. The velocity of the flow is estimated at 4 ft/sec (visual observation) with the assumed duration of the flow lasting for one hour. The total amount of the SSO is estimated at 56,441 gallons (.524 x 4 x 60 x 60 x 7.48 = 56,441)

Height of plume	2 inches
Area for 24 inch manhole	0.524 square feet
Estimated velocity	4 ft/sec
Duration of SSO	60 minutes
Conversion from cu. ft. to gallons	7.48
Total estimated SSO volume	56,441 gallons

(.524 sq. ft. x 4 ft/sec x 60 minutes x 60 sec/min x 7.48 gal/cu ft = 56,441 gal)

Area Calculation Chart		
Height of Flow	24 Inch Manhole	36 Inch Manhole
.5 inches	0.131 sq. ft.	0.195 sq. ft.
1 inches	0.262 sq. ft.	0.391 sq. ft.
1.5 inches	0.393 sq. ft.	0.586 sq. ft.
2 inches	0.524 sq. ft.	0.782 sq. ft.
2.5 inches	0.655 sq. ft.	0.977 sq. ft.
3 inches	0.786 sq. ft.	1.173 sq. ft.
3.5 inches	0.917 sq. ft.	1.368 sq. ft.
4 inches	1.048 sq. ft.	1.564 sq. ft.

Open Manhole

In large events the force of the overflowing wastewater will have sufficient pressure and volume to unseat the cover from the frame and move the manhole cover away from the manhole. Typically, when the SSO rates reach approximately 7 cfs (approximately 3,000 gpm or about 4.32 mgd), there is sufficient flow and pressure to blow off the manhole cover. To estimate the volume of an SSO where the manhole cover has been removed, the average height of the plume of wastewater exiting the manhole must be measured. This measurement is from the pavement surface close to the manhole ring to the top of the plume. Take several measurements in several locations around the ring and average the findings. If possible, and being safe to protect yourself from the open manhole, find the average height of the plume for the size of the manhole lid (24-inch or 36-inch diameter) on the Area Calculation Chart to determine the rate of flow exiting the manhole. Multiply the flow rate expressed in gallons per minute from the chart multiplied by the duration of the SSO in minutes to determine the total volume of the SSO. A photo taken at a safe distance upon arrival may help you refine your estimate.

Example: Determine the observed height of the plume at several locations around the ring of the manhole and average the results. Determine the size of the manhole cover. If the average height of the plume exiting an open 24-inch diameter manhole is 2 inches, find 2 inches on the 24-inch Manhole Cover Removed Chart. Based upon the data provided in the Manhole Cover Removed Chart, the flow in gallons per minute would be 3,444 gpm. If the duration of the flow lasted for one hour (60 minutes), the total amount of the SSO would be estimated at 206,640 gallons (3,444 x 60 = 206,640).

Height of plume (average) on 24-inch manhole	2 inches
Estimated flow from chart	3,444 gpm
Duration of SSO	60 minutes
Estimated SSO total volume	206,640 gallons

(Est flow from chart 3,444 x 60 minutes = 206,640)

ESTIMATED SSO FLOW OUT OF M/H WITH COVER REMOVED

24" FRAME

Water Height above M/H frame H in inches	S S O FLOW Q in gpm	in MGD	Min. Sewer size in which these flows are possible
1/8	28	0.04	
1/4	62	0.09	
3/8	111	0.16	
1/2	160	0.23	
5/8	215	0.31	6"
3/4	354	0.51	8"
7/8	569	0.82	10"
1	799	1.15	12"
1 1/8	1,035	1.49	
1 1/4	1,340	1.93	15"
1 3/8	1,660	2.39	
1 1/2	1,986	2.86	
1 5/8	2,396	3.45	18"
1 3/4	2,799	4.03	
1 7/8	3,132	4.51	
2	3,444	4.96	21"
2 1/8	3,750	5.4	
2 1/4	3,986	5.74	
2 3/8	4,215	6.07	
2 1/2	4,437	6.39	
2 5/8	4,569	6.58	24"
2 3/4	4,687	6.75	
2 7/8	4,799	6.91	
3	4,910	7.07	

36" FRAME

Water Height above M/H frame H in inches	S S O FLOW Q in gpm	in MGD	Min. Sewer size in which these flows are possible
1/8	49	0.07	
1/4	111	0.16	
3/8	187	0.27	6"
1/2	271	0.39	
5/8	361	0.52	8"
3/4	458	0.66	
7/8	556	0.8	10"
1	660	0.95	12"
1 1/8	1,035	1.49	
1 1/4	1,486	2.14	15"
1 3/8	1,951	2.81	
1 1/2	2,424	3.49	18"
1 5/8	2,903	4.18	
1 3/4	3,382	4.87	
1 7/8	3,917	5.64	21"
2	4,458	6.42	
2 1/8	5,000	7.2	24"
2 1/4	5,556	8	
2 3/8	6,118	8.81	
2 1/2	6,764	9.74	
2 5/8	7,403	10.66	
2 3/4	7,972	11.48	30"
2 7/8	8,521	12.27	
3	9,062	13.05	
3 1/8	9,604	13.83	
3 1/4	10,139	14.6	
3 3/8	10,625	15.3	36"
3 1/2	11,097	15.98	
3 5/8	11,569	16.66	
3 3/4	12,035	17.33	
3 7/8	12,486	17.98	
4	12,861	18.52	
4 1/8	13,076	18.83	
4 1/4	13,285	19.13	
4 3/8	13,486	19.42	

Disclaimer:
This sanitary sewer overflow table was developed by Ed Euyen, Civil Engineer, P.E. No. 33955, California, for County Sanitation District 1. This table is provided as an example. Other Agencies may want to develop their own estimating tables.

Pictorial Reference

Currently there are two picture charts being widely used to assist with estimating SSO volumes. The older chart is the city of San Diego's Manhole Overflow Rate Chart with the newer chart being the CWEA Southern Section Collection Systems Committee (SSCSC) Manhole Overflow Gauge. Each chart is a pictorial depiction of how an overflowing manhole appears at a given flow rate. The SSCSC Manhole Overflow Gauge has an additional picture for each flow rate showing a wide angle view of the spill area. When using either of the pictorial reference charts, select which picture most accurately represents the SSO being estimated. Use the gpm of the associated picture multiplied times the duration of the SSO to determine the total spill volume. Example: If the selected picture shows 300 gpm and the duration of SSO is 55 minutes, the total estimated spill volume would be 16,500 gallons (300 gpm x 55 min).

Selected picture volume	300 gpm
Duration of SSO	55 minutes
Total estimated SSO	16,500 gallons
(300 gpm x 55 minutes = 16,500 gallons)	

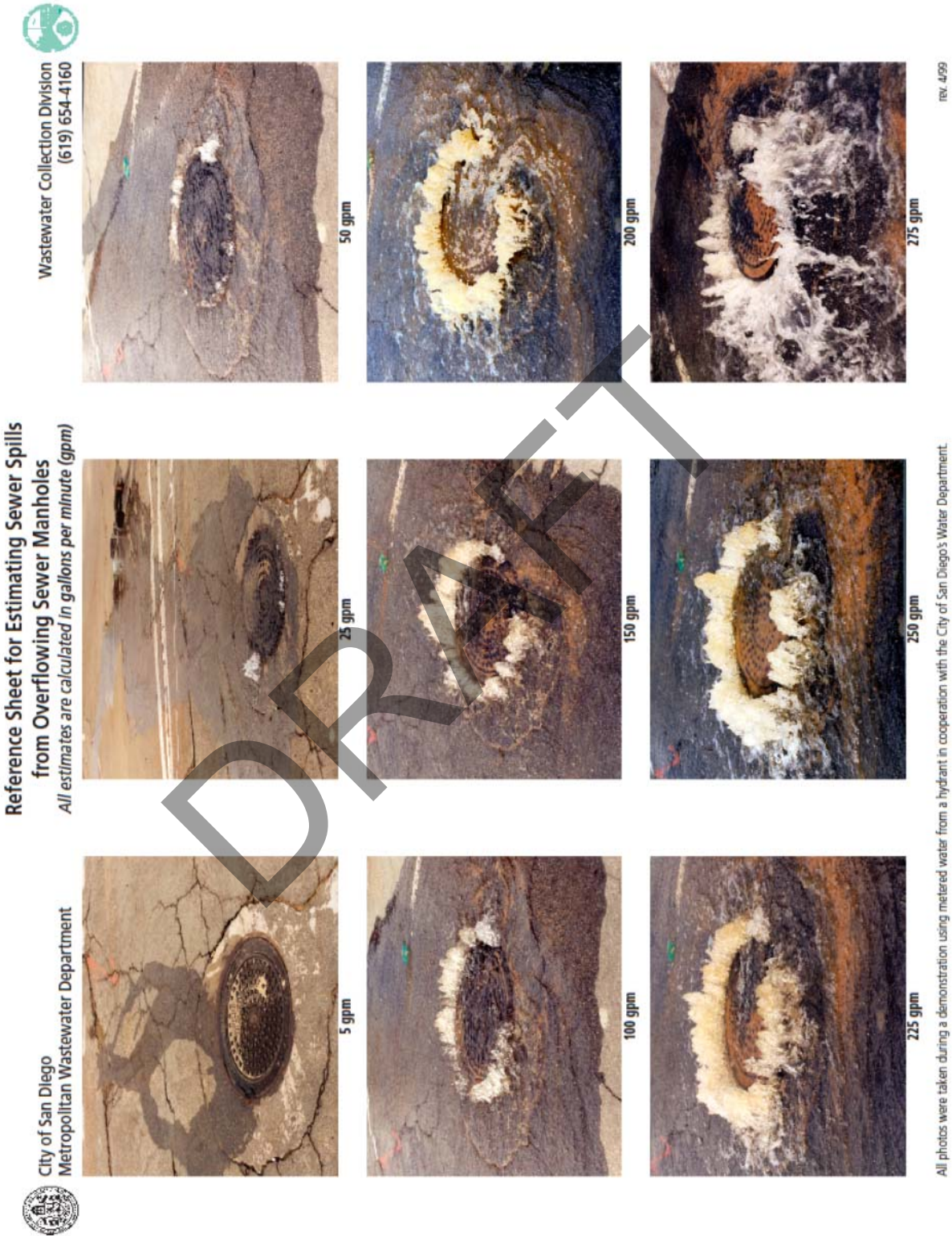
Note: Data was obtained at training facilities where potable water was metered and photos were taken at various flow rates.

Training facilities also exist at the Orange County Sanitation District in Fountain Valley, CA.

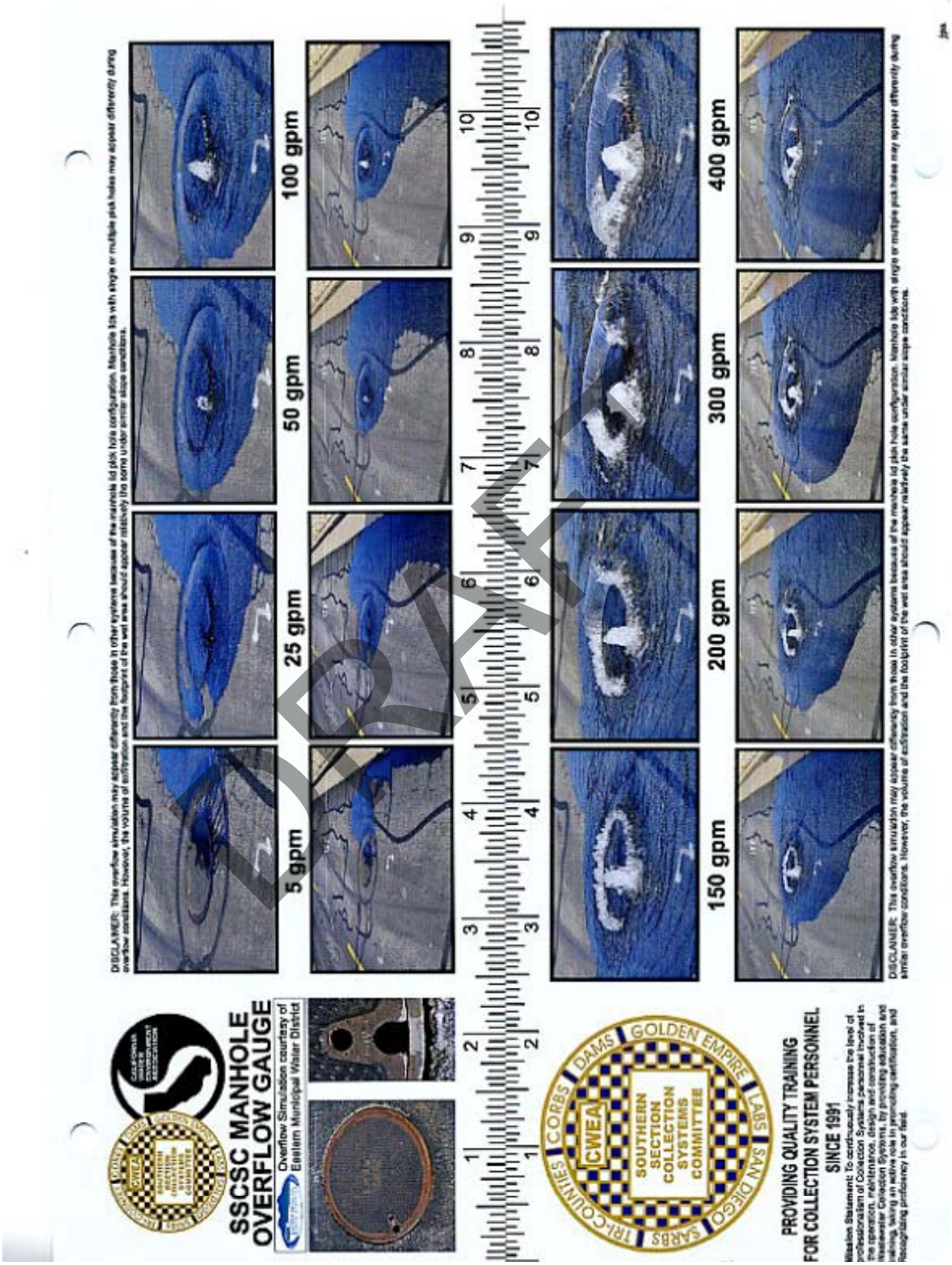
As a reference point, an 8-inch diameter sewer flowing half full at a velocity of 2.5 ft/sec would have a flow rate of about 192 gal/min. If fully blocked, the SSO rate would be 192 gpm. For a partial blockage, the SSO rate will be less.

Other agencies have developed above ground estimating tools such as frame and cover sets that can be pressurized using potable water and simple flow meters.

City of San Diego Manhole Overflow Picture Chart

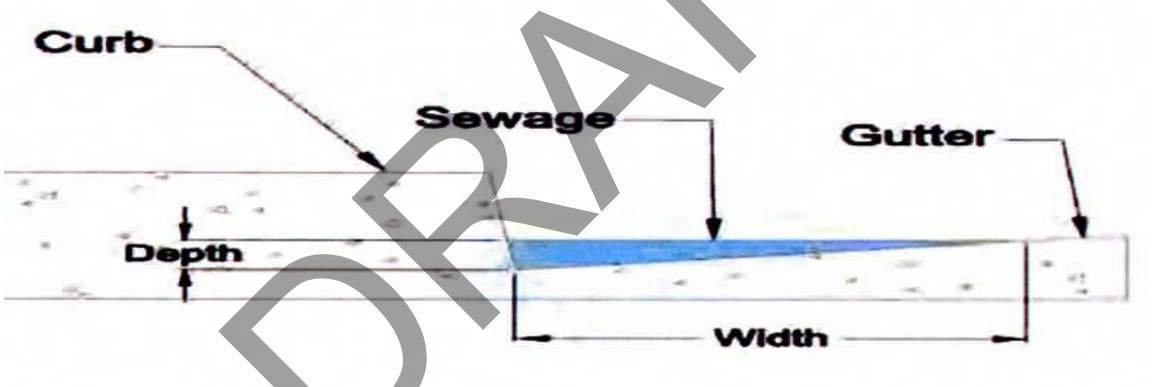


SSCSC Manhole Overflow Gauge



Gutter Flow (Simplified Version)

Although the traditional Manning's Equation is used to calculate flows in open channels, this simplified version can be used to measure SSOs that are flowing in open channels such as ditches, curb and gutter, etc. and still achieve reasonable estimations. Two things need to be determined to utilize this method of spill estimation, the cross sectional area of the channel and the velocity of the flow in the channel. First, determine the cross sectional dimensions of the channel (width and depth of flow) to determine the area of the flow. Then determine the velocity of the flow in the channel. To determine the velocity, drop a small floating object (ping pong ball, leaf, small piece of wood, etc.) into the flow and time how long it takes the object to travel a measured distance. This should be practiced several times in a non-SSO situation, and averaged to determine the flow velocity. The velocity of the flow multiplied by the cross sectional area of the flow multiplied by the duration of the SSO will result in the approximate volume of the SSO.



$Q = V \times A$

Flow (gal/min) = Velocity (ft/sec) x Area (ft^2) x 7.48 gal/cu ft x 60 sec/min

Example: If the cross section triangular area of the spill is calculated at .5 sq.ft. with the velocity measured at .25 ft. per second, the flow would be .125 cubic feet per second. Multiply times 449 (one cubic foot per second equals 449 gallons per minute) to determine the gallons per minute (56 gpm). If the SSO lasted for 35 minutes the total estimated spill volume would be 1,964 gallons.

Simplified Cross Section Area of the SSO	
Estimated Triangular Area	0.5 square feet
Estimated Velocity	.25 feet per second
Duration of the SSO	35 minutes
Gallons per minute per cubic foot per second conversion	449
Total estimated spill volume	1,964 gallons

(Area .5 sq.ft. x Est velocity .25 ft. per sec. = .125 cfs x 449 = 56 gpm x 35 minutes = 1,964 estimated gallons spilled)

Gutters on steep hillsides will flow at higher velocities. Practice your estimating on flatter areas and steeper areas of your service area.

Bucket Method

This method can be used for small spills due to partial blockages where the entire flow stream could be captured in a bucket. Estimate how many minutes it takes to fill the bucket. Dividing the volume of the bucket (in gallons) by the elapsed time to fill the bucket (in minutes). This provides the flow rate in gallons per minute (gpm). Once the gpm has been established, multiply the gpm by the total time duration in minutes of the SSO until it stopped to determine the total estimated volume of the SSO.

Example: If it takes 30 seconds (.5 minutes) to fill a 5 gallon bucket and the total spill duration was 20 minutes, the total spill volume would be 200 gallons. (5gal/.5 min = 10 gpm x 20 min = 200 gal).

Time to fill a 5 gallon bucket	30 seconds (.5 minute)
Duration of SSO	20 minutes
Estimated spill volume	200 gallons

(5 gallons every 30 seconds equals 10 gallons per minute x 20 minutes = 200 gallons)

You can practice visual estimating by filling a bucket of known volume for a measured time from a garden hose.

Pipe Size

To calculate an SSO based upon pipe size requires the diameter of the pipe, the depth of flow in the pipe downstream of the blockage during and after the blockage, and the flow velocity in the pipe. This method calculates the amount of flow in the pipe at the same time of the day during the blockage compared to the amount of flow normally in the pipe to determine how much flow had been lost over time.

To use this method, measure the flow depth at the nearest manhole downstream from the blockage. Record the depth reading. Once the blockage has been cleared and the flow stabilized, measure the flow depth at the same manhole as before and record the reading. The attached chart can be used on various size pipelines where the velocity is 2.0 feet per second. Pipelines of other rates will have to be calculated.

To use the attached chart, find the depth of the flow during the blockage in column 1. Follow the row across to the diameter of the pipe where the blockage has occurred. The number listed will be the flow rate in gallons per minute for pipelines with a velocity of 2 feet per second. Next find the flow depth after the blockage has been removed and the flow stabilized. Move across the chart to the proper pipe size and record the flow rate for a free flowing pipeline. Subtract the flow rate from the blocked pipe from the flow rate of the free flowing pipe. The remainder will be the flow rate lost. Multiply the flow rate lost times the duration of the SSO to determine the total flow volume lost. Example: If the flow depth during the blockage of a 10-inch pipe was 1 inch, the flow rate would 25 gpm. After the blockage was cleared and the flow stabilized, the flow depth was now 5 inches then the flow rate would be 240 gpm. To determine the amount lost, subtract the gpm (pipe blocked) from the gpm (pipe cleared) (240 gpm – 25 gpm = 215gpm) leaving the flow rate of the SSO. Multiply the remaining flow rate multiplied by the duration of the SSO in minutes to estimate the total volume of the SSO.

Flow Depth Inches	8 " PIPE	10" PIPE	12" PIPE	15" PIPE	18" PIPE	21" PIPE	24" PIPE
1	20 GPM	25 GPM	30 GPM	35 GPM	40 GPM	45 GPM	50 GPM
2	60	70	80	85	95	105	125
3	110	125	135	150	175	185	210
4	160	180	200	235	260	285	320
5	190	240	280	315	360	380	445
6	260	310	355	415	455	500	555
7	290	370	425	495	570	620	695
8	320	430	500	600	680	760	815
9		465	575	690	800	890	965
10		490	625	775	905	1005	1120
11			685	870	1020	1135	1275
12			715	935	1130	1260	1410
13				1020	1240	1415	1580
14				1070	1345	1520	1690
15				1105	1425	1650	1850
16					1495	1760	1990
17					1550	1880	2110
18					1595	1980	2285
19						2050	2410
20						2115	2530
21						2160	2630
22							2700
23							2765
24							2820

Note: the chart assumes V = 2.0 feet per second and n = 0.013

1. Record the time that spill was reported.
2. Record the flow, in inches, downstream of the spill or blockage. Record the pipe size in inches. Determine flow rate in gallons per minute (GPM) using chart above.
3. Re-establish flow and allow stabilizing. Record the time that flow stabilizes and the depth of flow, in inches. Determine flow rate using chart above.
4. Subtract the flow rate calculated in #2 from the flow rate calculated in #3.
5. Multiply the result of 4 by the minutes elapsed from notification to stopping overflow.
6. Report total amount in gallons on the SSO Report.

Note: The above chart is only for pipelines of the diameters shown and flowing at a velocity of 2.0 ft/sec.

Metered Flow

Estimates of the amount of wastewater spilled from a continuously metered system can be achieved utilizing upstream and downstream flow meters located close to the point where the wastewater escaped. Flow meters may be located at strategic locations throughout the wastewater collection system or at the intake or discharge of wastewater pump or lift stations. Flow metering usually occurs on pressure systems. If a spill is suspected on a metered upstream wastewater line, check the flow meter readings for abnormalities and note the time they start. Also check the flow meter readings at the downstream flow meter. If the downstream readings are lower than usual, the difference may be the amount of wastewater being lost to a spill. Abnormal pumping cycles for pump or lift stations located downstream from the spill can also be used to estimate the volume of a spill. Portable flow meters could also be installed in gravity sewers after a SSO event to help verify average flows at various times of the day when full or partial blockages may have occurred. You should also perform

this on the same day of the week that the SSO occurred. This is also a good way to understand how flows will change during the day in various parts of your system.

Rain Events

Previous examples of methods throughout the document were all in dry weather situations. Rain events cause substantial difficulties for SSO responders in establishing an accurate estimate of an SSO. Infiltration into the sewer system will increase, sometimes dramatically, the system flow including the amount of the SSO. When estimating the SSO amount during a rain event, the estimate is to include only the amount of wastewater that left the collection system (this includes any clear water inflow and/or infiltration (I&I) that entered the collection system upstream of the SSO) and not any waters that the wastewater comingled with after leaving the system. Although the comingled waters are considered contaminated by the SSO and may be involved in the cleanup, they should not be considered in the estimate of the volume of sewage spilled for the event. Consult with your city or agency management or your site-specific procedures to be used during wet weather SSOs.

Saturated Soils

Spills that have occurred on or migrated to grassy or dirt areas can be estimated if the area is dry and is not regularly irrigated like a field or dirt parking lot. This method is effective only during dry weather and not during or after a rain event. To estimate how much wastewater has been lost to the soil, first determine how many cubic feet of soil has been wetted. First determine the size of the area where the spill occurred. This is done in the same manner as for spills that occurred on hard surfaces and as discussed in the Measured Volume Method. Next determine how deep the soil has been saturated. To determine the depth of the soil saturation, dig several test holes with a round point shovel until dry soil is reached. Measure the depth of each hole and determine the average depth of the saturated soil. Multiply the area of the spill (in square feet) times the average depth of the soil saturation to determine the amount (in cubic feet) of saturated soil. Different types of soils will retain moisture in different amounts. Water will penetrate sandy soils quicker than clay soils and clay soils are capable of holding more moisture than sandy soils. Use an average of 18% moisture content when estimating the amount of wastewater that has saturated the soil.

Example: If the spill was contained in a dry dirt or grassy area of 10 feet by 20 feet, the area of the spill would be 200 square feet if it was a perfect rectangle (assumed). If the wastewater penetrated the soil to an average depth of 3 inches, the total amount of saturated soil would be 50 cubic feet (10 x 20 x .25 = 50 cf.). To determine the amount of wastewater suspended in the wetted soil, multiply the 50 cubic feet times 7.48 gallons per cubic foot (50 cf x 7.48 gal/cf = 374 gallons). Next multiply the gallons times the average amount of moisture the soil can hold (use 18% as a rough estimate or calculate the soil moisture) to determine the actual estimated amount of wastewater that has saturated the soil (374 gal x .18 = 67.3 gallons of wastewater contained in the soil for the area of the spill). Add the amount of wastewater estimated to be contained in the soil with the amount of surface wastewater that was removed to achieve an estimated total amount of the wastewater spill.

Simple method to calculate soil moisture content:
Equipment needed: One coffee filter; a funnel; a graduated measuring cup; a jar or bottle. Place the coffee filter into the funnel. Place the funnel into the mouth of the jar or bottle. Place one cup of clean dry soil from the spill site onto the coffee filter. Pour one cup (8 ounces) of water onto the soil and allow the water to drain into the jar. Once the water has stopped dripping from the funnel, remove the funnel and measure the amount of water in the jar. The difference between the amount of water in the jar and the 8 ounces originally poured over the soil is the amount of moisture the soil retained.

Example: If six and one half ounces (6.5) remained in the jar, one and one half ounce (1.5) or 18.75% remained in the soil. The soil moisture content would be 18.75%.

Combo Truck or Vacuum Truck Recovery

When the spill is contained to a specific area and recovered by a combo or vacuum truck, the amount recovered can be used in calculating the amount of the original spill. If the spill is contained on a hard surface, estimate the total spill volume by what was captured by the combo or vacuum truck plus the amount that could not be captured. To estimate the amount not captured by the combo or vacuum truck, use the Measured Volume Method. For wet spots on concrete, use a depth of 0.0013 ft. or 1/64 inch. For wet stains on asphalt, use a depth of

0.0026 ft. or 1/32 inch. If the spill is contained on soil, use the Saturated Soils Method to determine how much of the spill soaked into the soil and add to the amount captured by the combo or vacuum truck.

Conversion Factors

1.0 cfs = .6463 mgd

One cubic foot of water (cf) = 7.48 gallons

One cubic foot of water per second (cfs) = 448.8 gallons per minute

A cylinder 1 foot in diameter and one foot deep = 5.87 gallons

A 1 square foot triangle 1 foot deep = 3.25 gallons

One inch or 1/12 ft = .083 feet

Volumes Recovered with Trucks or Pumped to Tanks

Level gauge on truck or

Known volume of the full tank or

Number of full tank trucks used during large SSO events

Use your agency's approved conversion factors, if available.

References

California Environmental Protection Agency

http://www.calepa.ca.gov/

State Water Resources Control Board

http://www.swrcb.ca.gov/

Sanitary Sewer Overflow (SSO) Reduction Program

http://www.swrcb.ca.gov/water_issues/programs/sso/index.shtml

Sample Worksheet

(City or Agency Name)

SSO Volume Estimation Worksheet

SSO Address/Location: _____ **Date:** _____

SSO Volume Method of Estimation (check appropriate box and provide appropriate information for method used below)

Pictorial Reference Flow Rate Chart (San Diego Chart ☐ CWEA Ruler ☐)
Vent or Pick Holes ☐ Eyeball estimate ☐

Measured volume ☐ Counting Connections ☐ Manhole Ring ☐ Partially Covered Manhole ☐ Open Manhole ☐

Bucket Method ☐ Pipe Size Method ☐ Gutter Flow Method ☐ Metered Flow ☐
Rain Event Method ☐

Saturated Soils Method ☐ Combo/Vacuum Truck Recovery Method ☐

Spill Start Date: _____ Spill Start Time: _____

Spill End Date: _____ Spill End Time: _____ Total Est. Spill Volume (gal): _____

Provide a detailed description of the method(s) used to determine the SSO estimate. (Use additional sheets as needed)

Signed: _____ **Date:** _____

APPENDIX D

TRAINING DOCUMENTS

Fortuna
Spill Emergency Response Plan - Training Log

Instructions: Following annual training on the **Fortuna Spill Emergency Response Plan**, responders, staff with responsibilities within the plan, and contractors that respond to overflows should sign and date below. Individuals are encouraged to provide any comments regarding the necessity to update or modify the plan.

Training Date	Employee/ Contractor Name	Signature	Comments

Fortuna
Spill Emergency Response Plan - Training Log

Instructions: Following annual training on the **Fortuna Overflow Emergency Response Plan**, responders, staff with responsibilities within the plan, and contractors that respond to overflows should sign and date below. Individuals are encouraged to provide any comments regarding the necessity to update or modify the plan.

Training Date	Employee/ Contractor Name	Signature	Comments

Fortuna
Spill Emergency Response Plan - Training Log

Instructions: Following annual training on the **Fortuna Spill Emergency Response Plan**, responders, staff with responsibilities within the plan, and contractors that respond to overflows should sign and date below. Individuals are encouraged to provide any comments regarding the necessity to update or modify the plan.

Training Date	Employee/ Contractor Name	Signature	Comments

Fortuna
Spill Emergency Response Plan - Training Test

Instructions: Following annual training on Fortuna **Spill Emergency Response Plan**, responders, staff with responsibilities within the plan, and contractors that respond to overflows should answer the questions below. Individuals are encouraged to provide any comments regarding the necessity to update or modify the plan.

1) What are the goals of the **Fortuna** SERP?

2) What are the priorities of a first responder to a SSO?

3) How do you locate the nearest stormwater inlet that could be impacted by the SSO?

4) How do you know the location of the outfall of a stormwater conduit impacted by an SSO?

_____

5) What SSOs trigger a Failure Analysis Investigation?

_____

6) What is determined by the Failure Analysis Investigation?

_____

_____

7) Who receives a copy of the Failure Analysis Investigation report?

_____

8) Where are the materials stored for responding to an SSO?

_____

9) What conditions constitute a Category 1 SSO?

_____

10) If a large SSO occurs and **Fortuna** needs outside equipment or resources, who do you call? and what are their 24-hour phone numbers?

_____

APPENDIX G

FOG CONTROL POLICY (2010)

Fortuna Fats, Oils and Grease (FOG) Policy

Policy Objectives:

To set forth policies, procedures and requirements governing the installation and maintenance of grease and oil interceptors for Food Service Establishments (FSEs).

To protect the sewer collection system from grease accumulation and blockages that may cause sanitary sewer overflows (SSOs) in violation of the City of Fortuna NPDES Permit, which can create public health hazards and subject the City to administrative penalties.

Authority:

Fortuna Municipal Code (FMC) Title 13, Division II, Section 13.32.070 H Interceptor Requirements

California Plumbing Code (CPC)

Assigned Responsibility:

City Manager, Director of Public Works, City Engineer, Utilities Superintendent, Engineer Technician.

Applicability:

This policy shall apply to all Food Service Establishments (FSEs) within the City Limits of Fortuna.

Definitions:

Fats, Oils, and Greases (FOG): Organic polar compounds derived from animal and/or plant sources that contain multiple carbon chain triglyceride molecules.

Grease Interceptor: Any plumbing appurtenance or appliance that intercepts fats, oil and grease from a wastewater discharge.

> **A. Hydromechanical Grease Interceptor:** A plumbing appurtenance or appliance that intercepts fats, oil and grease from a wastewater discharge and is identified by flow rate, and separation and retention efficiency. The design incorporates air entrainment, hydromechanical separation, interior baffling, and/or barriers in combination.
>
> > **1. Grease Removal Device:** Any hydromechanical grease interceptor that automatically, mechanically removes FOG from

the interceptor, the control of which are either automatic or manually initiated.

2**. Grease Trap:** A device designed to retain grease from one to a maximum of four fixtures.

3**. Trapzilla or Approved Equal:** A polyethylene large capacity hydromechanical grease interceptor.

B. Gravity Grease Interceptor: A plumbing appurtenance or appliance that is installed in a sanitary drainage system to intercept FOG from a wastewater discharge and is identified by volume, retention time, baffles, a minimum of two compartments, a minimum total volume of 300 gallons, and gravity separation. Gravity grease interceptors are generally installed outside.

Food Service Establishment (FSE): Those establishments primarily engaged in activities of preparing, serving, or otherwise making food available for consumption by the public. FSEs include but are not limited to restaurants, commercial kitchens, caterers, hotels, schools, hospitals, prisons, correctional facilities, and care institutions.

Best Management Practice (BMP): Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to reduce the FOG discharges.

FOG Requirements:

A. All FSEs where food is being prepared or kitchenware is being washed shall install an appropriately sized grease interceptor. Espresso bars, juice bars, and other low impact FSEs may be excluded on a case by case basis.

B. Existing FSEs with planned plumbing improvements or tenant improvement plans subject to a building permit shall be evaluated during the building permit process and shall install an appropriately sized grease interceptor if one is not already in place. If a grease interceptor is required, these facilities shall first obtain approval of device type and size from the City Engineer for proper device type and size prior to receiving a building/plumbing permit.

Newly constructed FSEs shall install an appropriately sized gravity grease interceptor in conformance with CPC Chapter 10. All such facilities shall obtain prior approval from the City Engineer for sizing prior to receiving a building permit.

C. All existing food service establishments that are determined by the City Engineer, to have a reasonable potential to adversely impact the City's sanitary sewer system will be required to install an appropriately sized grease interceptor or upgrade their current system to conform to the requirements of this policy. Facilities with undersized or nonfunctional grease interceptors as determined by the city will be required to install an appropriately sized grease interceptor or upgrade their current system to conform to the requirements of this policy. FSEs will be notified of their obligation to fulfill applicable requirements within a time period specified in a Notice of Correction.

Plan Review:

All building plans for the new construction of FSEs, as well as alterations of an existing FSE that require a building permit shall be approved by the City Engineer prior to issuance of the building permit.

Alternative Pretreatment Technology:

A. Devices required under this Policy shall be installed unless the City Engineer authorizes the installation of alternative pretreatment technology. The installation of alternative pretreatment technology will be considered where the installation of a grease interceptor is not feasible due to physical constraints or other considerations.

B. Alternative pretreatment technology includes, but is not limited to, devices that are used to trap, separate and hold grease from wastewater and prevent it from being discharged into the sanitary sewer. All alternative pretreatment technology must be appropriately sized and approved by the City Engineer.

Installation Requirements:

A. Grease interceptor sizing and installation shall conform to the current editionof the California Plumbing Code or other codes adopted by the City of Fortuna.

B. Waste lines leading from sinks, drains, and other fixtures or equipment in FSEs where grease may be introduced into the sanitary sewer system may be required to be connected to a grease interceptor.

C. Gravity grease interceptors shall be constructed in accordance with the City of Fortuna Standard Drawings. The minimum size gravity grease interceptor allowed is 750 gallons. If more than one interceptor will be installed to achieve the required storage capacity, the interceptors shall be

installed in series. All interceptors except the final one shall be designed as a single chamber interceptor. Gravity grease interceptors shall not be located in a food or utensil handling area.

D. Trapzilla Hydromechanical Grease Interceptors or Approved Equal shall be a minimum size of 75 gallons per minute unless specifically authorized by the City Engineer.

E. Grease interceptors shall be installed at a location where they are easily accessible for inspection, cleaning, and removal of intercepted grease.

F**.** Grease traps are not allowed in new construction and remodels unless specifically approved by the City Engineer. Approval shall only be granted in instances where the installation of a gravity grease interceptor, grease removal device, Trapzilla (or Approved Equal), or alternative pretreatment technology is not feasible. Grease traps shall not be located, in a food or utensil handling area.

G. Sanitary wastes shall not be discharged to a grease interceptor.

H. No food waste disposal unit or dishwasher shall discharge into any hydromechanical grease interceptor.

1. Existing facilities with food waste disposal units that discharge to hydromechanical grease interceptors or discharge directly to the sanitary sewer shall remove the food waste disposal unit or connect it to a gravity grease interceptor with a minimum size of 1,000 gallons.

2. Existing facilities with dishwashers that discharge to hydromechanical grease interceptors shall re-route the dishwasher to discharge directly to the sanitary sewer or with the approval of the City Engineer may discharge to a gravity grease interceptor with a minimum size of 750 gallons.

Maintenance Requirements:

A. All grease interceptors/devices shall be maintained in efficient operating condition in conformance with CPC § 1014.1.2 and FMC Chapter 13. Accumulated grease and sediment shall be removed as required. At a minimum gravity grease interceptors and grease traps shall be cleaned when the volume of sediment and grease equals or exceeds 25% of the total depth of the sediment, water, and grease layers.

B. Grease Removal Devices, Trapzillas (or Approved Equals), and Alternative Pretreatment Technologies shall be cleaned and maintained in accordance with the manufactures' recommendations.

C. No collected waste shall be introduced into the sanitary sewer.

D. All grease interceptors shall be kept free of non-food waste including but not limited to grit, rocks, gravel, sand, eating utensils, cigarettes, trash, towels, and rags.

E. The addition chemicals, enzymes, emulsifiers, live bacteria or other grease cutters or additives used for purposes of grease reduction to a grease interceptor is specifically prohibited.

F. If the City of Engineer determines that a grease interceptor is not being properly cleaned and maintained, the City may mandate a maintenance program. Maintenance programs shall include but are not limited to mandatory cleaning frequencies. Facilities that fail to adhere to a mandated maintenance program may be required to install additional grease interceptors.

APPENDIX H

SEWER SECTION OF CAPITAL IMPROVEMENT PLAN

Sewer System Model and Master Plan CIP# 9110

Description
Develop an updated master plan for the sewer system of the entire City.

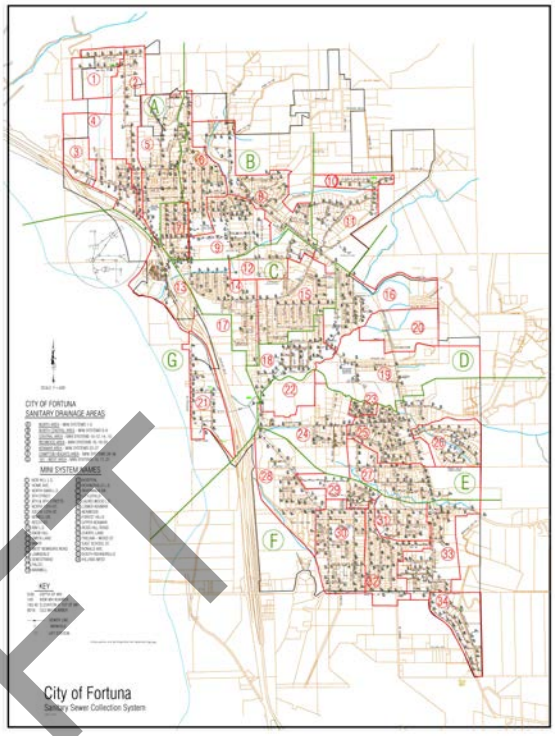
Justification
This master plan will provide information that staff can use to identify improvements needed to develop future projects to provide proper capacity and collection of the City's sewer system.

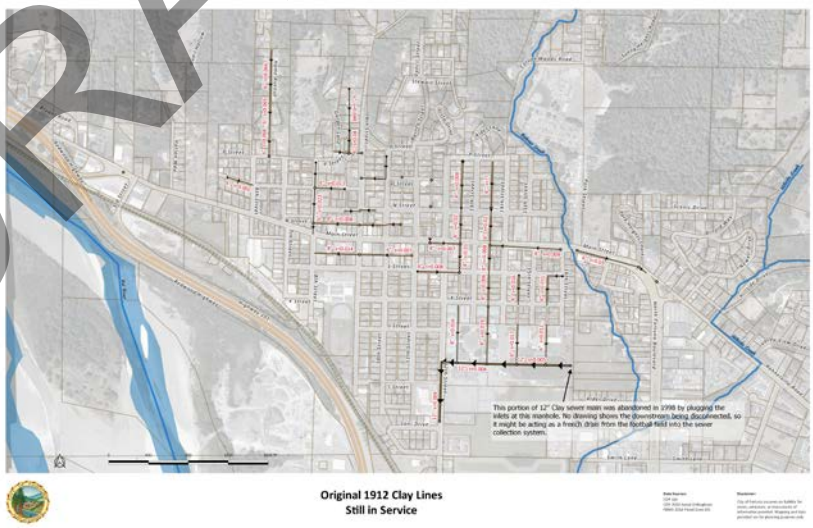
Studies and Reports
Oscar Larson Sanitary Sewer System Evaluation and Recommended Improvements Report 2011

Funding Sources
Sewer Reserve Fund 560

Prior Appropriations
N/A

Comments





(Director of Public Works)

Project Cost Estimate
2023 Dollars

1. Planning	$165,000	23/24
Total	**$165,000**	

NPDES Compliance Project CIP# 0171

Description
Perform engineering design and permitting for the treatment plant upgrade and new summertime effluent disposal location. Restrict flows to Strongs Creek to 1% of the creek flow and comply with nutrient effluent limitations. Includes WWTP Equalization Pond Project

Justification
This project will bring the plant into compliance with the 2016 permit standards set by the Regional Water Quality Control Board.

Studies and Reports
GHD 2015 Pre-Feasibility Analysis

Funding Sources
Sewer Reserve Fund 560

Prior Appropriations
Sewer Reserve Fund 560;
Prefeasibility Analysis $178,709
Compliance Project $440,000
SWRCB Grant Fund 360;
Compliance Project $500,000

Comments
The projected costs below are for complete compliance with the RWQCB including construction, potential property acquisition(s), plant upgrades and design. The estimates will be updated as the analysis is more complete and a clearer picture of the permit is realized.

(City Engineer)

Project Cost Estimate
2023 Dollars

1.	Design	$2,000,000	23/24
2.	Construction	$10,000,000	25/26
3.	Construction	$10,000,000	26/27
	Total	**$22,000,000**	

Sanitary Sewer Lining Project CIP# 9976

Description
Identify locations and contract for lining of existing sanitary sewer lines at various locations within the City. Includes from 12th Street to the parking lot at Forbusco Lumber.

Justification
The City has aging infrastructure, and especially sewer lines age and crack resulting in inflow from storm water impacting the sewage treatment facility, this will help in alleviating those impacts.

Studies and Reports
SHN 2018 Sanitary Sewer Evaluation Study

Funding Sources
Sewer Reserve Fund 560

Prior Appropriations
$200,000 grant funds SWRCB for planning

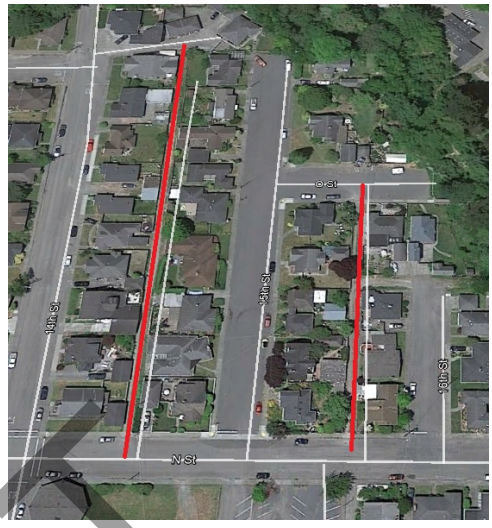
Comments
2nd Avenue was recommended by the SSES as one of the worst sections in the 2018 study.

(Utilities Superintendent)

Project Cost Estimate
2023 Dollars

1.	Design	$100,000	23/24
2.	Construction	$800,000	24/25
	Total	**$900,000**	

East Downtown Sewer Replacement Project CIP# 9514



Description
Replacement of the existing sewer line with 6" SDR 35 (plastic) in the alleys between 14th and 15th Street as well as 15th to 16th Street from N Street to P Street. Also on 8th Street from P Street to Main Street.

Justification
The existing line was constructed from clay, which, over time, has led to storm water infiltration of the sewer. Replacing these lines will reduce the cost of treating this water at the wastewater treatment facility.

Studies and Reports
Identified and recommended by the Utilities Crew.

Funding Sources
Sewer Reserve Fund 560

Prior Appropriations
N/A

Comments

(Utilities Superintendent)

Project Cost Estimate
2023 Dollars

1.	Construction	$550,000	25/26
	Total	**$550,000**	

P Street Sewer Replacement Project CIP# 9121

Description
Replacement of the existing sewer line with 6” SDR 35 (plastic) on P Street in between Garden and 9th Street, including manhole rehabilitations.

Justification
The existing line was constructed from clay, which over time has deteriorated and been damaged by roots. The damage has led to storm- and ground water infiltration of the sewer. Replacing these lines will reduce the cost of treating this water at the wastewater treatment facility.

Studies and Reports
Identified and recommended by the Utilities Crew while performing sewer camera inspections in 2022.

Funding Sources
Sewer Reserve Fund 560

Prior Appropriations
N/A

Comments

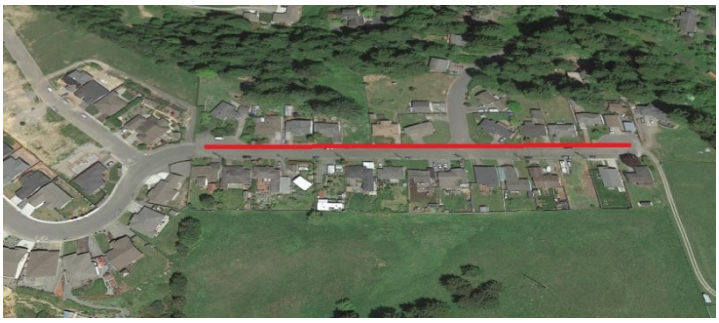
(Utilities Superintendent)

Project Cost Estimate
2023 Dollars

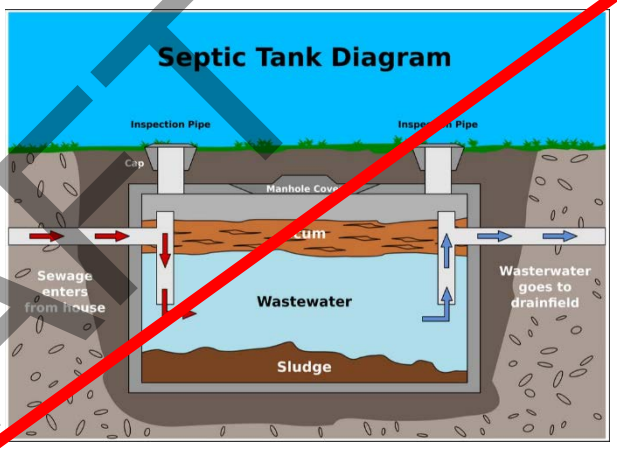
1.	Construction	$150,000	23/24
	Total	**$150,000**	

Hilltop Sewer Main Project CIP# TBD

Description
Extend 6” SDR 35 (plastic) sewer main to include all of Hilltop Drive (approximately 900 feet).



Justification
Currently the City’s sewer ends at the intersection of Ridgeview and Hilltop. This leaves approximately 30 homes on Hilltop Drive with septic systems. City code requires anyone within 1,000 feet of City sewer to be connected to sanitary sewer system. This project will reduce the inherent ground water pollution sources from septic systems.



Studies and Reports
Identified by the Utility Superintendent.

Funding Sources
Future Unidentified Grant Funds

Prior Appropriations
N/A

Comments

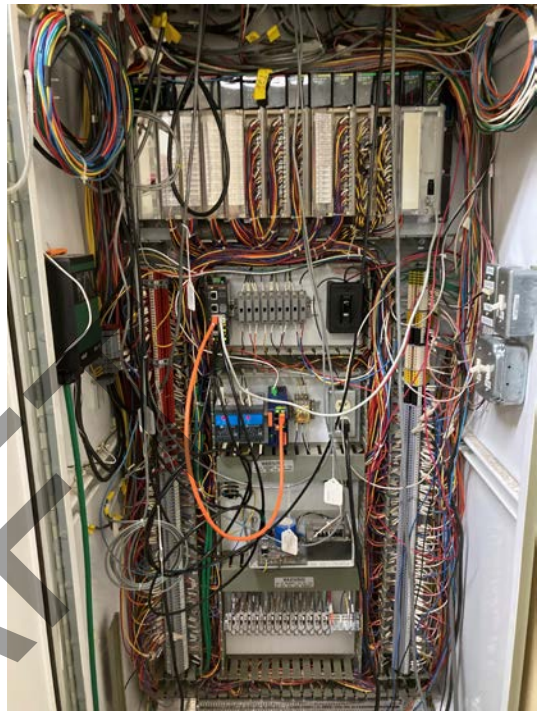
(Utilities Superintendent)

Project Cost Estimate
2023 Dollars

1.	Design	$50,000	26/27
2.	Construction	$450,000	27/28
	Total	**$500,000**	

Treatment Plant PLC, VPN, and Hardware Upgrades CIP# TBD

Description
Replace defunct SE Modicon PLC Cards, non-functioning VPN, and rewire PLC cabinets (5 total).



Justification
Our Modicon PLCs were discontinued in 2020, and their end of life is in 2028. With a new plant upgrade on the way, we need PLCs with extended life that can keep up with our plant until the next upgrade is needed. Our VPN has been non-functional since 2020, and we need secure remote access to our SCADA system at all times. Wiring is optional, but currently some of our cabinets are an unlabeled, or mislabeled, mess. Getting PLC addresses properly labeled and all equipment wired during the plant upgrade can allow for proper future automation, maintenance, and operation of our equipment.

Studies and Reports
Identified by the assistant city engineer, wastewater operations team, and consulting engineers.

Funding Sources
TBD

Prior Appropriations
N/A

Comments
This project could be combined with the Compliance Project, CIP 0171.

(City Engineer)

Project Cost Estimate

		2023 Dollars	
1.	Design	$50,000	26/27
2.	Construction	$350,000	27/28
	Total	**$400,000**	

Sanitary Sewer Collections System CCTV CIP# 9122

Description
This CIP would fund a sewer camera contractor to assist the City in cleaning and inspecting gravity sewer lines older than 10-years.

Justification
The City is required through a settlement agreement with California River Watch to complete CCTV sewer camera inspection of the entire collection system by May 2024. To date City staff have been able to complete inspections of 12 miles of sewer line, however there are approximately 40 miles remaining. This funding would allow the City to contract with a sewer camera specialist to complete the effort

Studies and Reports
N/A

Funding Sources
Sewer Fund 560

Prior Appropriations
Sewer Fund 560: $250,000

Comments
City staff will proceed with performing CCTV inspection of as much of the system as possible prior to contracting with a specialist to complete the effort by the compliance date.

(Utilities Superintendent)

Project Cost Estimate
2023 Dollars

1.	Construction	$600,000	23/24
	Total	**$600,000**	