Town of Windsor
CALIFORNIA

Town of Windsor Public Works Department

And Windsor Water District

Sewer System Management Plan Update

July 2025

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Town of Windsor Public Works Department
Sewer System Management Plan Update
July 2025

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I certify under penalty of law that this document and all appendices were prepared under my direction and supervision in accordance with a system designed to ensure that qualified personnel would properly gather and evaluate the information submitted. Based upon 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.

Table of Contents

EXECUTIVE SUMMARY **1**
ES-1 BACKGROUND **1**
ES-2 ORGANIZATION OF PLAN **1**
ES-3 SYSTEM OVERVIEW **1**
1.0 ELEMENT - GOALS AND INTRODUCTION **2**
1.1 REGULATORY CONTEXT 2
1.1.1 SSMP Goals 2
1.2 SEWER SYSTEM MANAGEMENT PLAN UPDATE SCHEDULE 3
1.3 SEWER SYSTEM ASSET OVERVIEW 4
2.0 ELEMENT - ORGANIZATION **5**
2.1 REGULATORY REQUIREMENTS FOR ORGANIZATION ELEMENT 5
2.2 ORGANIZATION 5
2.2.1 Background 5
2.2.2 Organization Chart 5
2.2.3 Authorized Representative and Staff Descriptions 5
2.2.4 Spill Reporting Chain of Communication 7
3.0 ELEMENT - LEGAL AUTHORITY **8**
3.1 REGULATORY REQUIREMENTS FOR LEGAL AUTHORITY ELEMENT 8
3.2 TOWN OF WINDSOR LEGAL AUTHORITY 8
3.2.1 Legal Authority Requirements 9
3.2.2 Agreements with Satellite Collection Systems 11
4.0 ELEMENT - OPERATION AND MAINTENANCE PROGRAM **11**
4.1 COLLECTION SYSTEM MAP 12
4.1.1 Preventive Operation and Maintenance Activities Gravity Sewers 12
4.1.2 Lift Stations and Force Mains 13
4.1.3 Non-Routine Maintenance 14
4.1.4 Information Systems/Data Collection 14
4.2 PRIORITIZATION FACTORS FOR SEWER CONDITION ASSESSMENT AND REHABILITATION PLANNING 14
4.3 TRAINING PROGRAM 15
4.4 EQUIPMENT AND PARTS INVENTORY 16
5.0 ELEMENT - DESIGN AND PERFORMANCE PROVISIONS **16**
5.1 DESIGN AND CONSTRUCTION STANDARDS FOR SEWER SYSTEMS 16
5.1.1 Town of Windsor Design and Construction Standards 16
5.1.2 Design and Construction Standards for New Sewer Systems 16
5.1.3 Design and Construction Standards for Lift Stations and Other Appurtenances 17
5.1.4 Design and Construction Standards for Rehabilitation and Repair of Existing Sewer Systems 17
5.2 PROCEDURES AND STANDARDS FOR THE INSPECTION AND TESTING OF NEW AND REHABILITATED SEWER FACILITIES 17

6.0 ELEMENT - SPILL EMERGENCY RESPONSE PLAN 18

6.1 SERP GOALS 19
6.2 SPILL DETECTION 19
6.2.1 Public Observation 19
6.2.2 Receipt of Alarm 20
6.2.3 Town Staff Observation 20
6.3 SPILL RESPONSE PROCEDURES 20
6.4 PRIORITIES 21
6.5 SAFETY DURING RESPONSE 21
6.6 RECOVERY AND CLEANUP 22
6.7 SPILL MONITORING REQUIREMENTS 23
6.7.1 Spill Location and Spread 23
6.7.2 Receiving Water Visual Observations 23
6.7.3 Water Quality Sampling and Analysis 23
6.8 SPILL NOTIFICATIONS 24
6.8.1 Internal Spill Reporting Procedures 24
6.8.2 Public Notification 25
6.8.3 Other Affected Entity Notifications 25
6.9 SPILL REPORTING AND DOCUMENTATION 25
6.9.1 Spill Investigation 26
6.10 POST SPILL EVENT DEBRIEFING 26
6.11 SYSTEM PERFORMANCE ANALYSIS 27
6.12 EQUIPMENT 27
6.12.1 Digital Camera 27
6.12.2 Emergency Response Vehicle 27
6.12.3 GPS Unit 27
6.12.4 Portable Pumps and Hoses 27
6.12.5 Spill Field Kit 27
6.13 TRAINING 27
6.13.1 Town Personnel 28

7.0 ELEMENT - SEWER PIPE BLACKAGE CONTROL PROGRAM 28

7.1 REGULATORY REQUIREMENTS FOR THE FOG PROGRAM 28
7.2 PUBLIC EDUCATION OUTREACH PROGRAM 29
7.3 FOG SOURCE CONTROL 29
7.4 DISPOSAL OF FOG 30
7.5 LEGAL AUTHORITY 30
7.6 REQUIREMENTS TO INSTALL GREASE REMOVAL DEVICES 30
7.7 AUTHORITY TO INSPECT GREASE PRODUCING FACILITIES 30
7.8 IDENTIFICATION OF GREASE PROBLEM AREAS AND SEWER CLEANING 30

8.0 ELEMENT - SYSTEM EVALUATION, CAPACITY ASSURANCE AND CAPITAL IMPROVEMENTS 31

8.1 SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN 31
8.2 CAPACITY ASSESSMENT AND DESIGN CRITERIA 31

8.3 PRIORITIZATION OF CORRECTIVE ACTION 31
8.4 CAPITAL IMPROVEMENT PLAN 31

9.0 ELEMENT - MONITORING, MEASUREMENTS, AND PROGRAM MODIFICATIONS 31

9.1 REGULATORY REQUIREMENTS FOR THE MONITORING, MEASUREMENTS, AND PROGRAM MODIFICATIONS 31
9.2 MONITORING INFORMATION 32
9.3 PERFORMANCE MEASURES 32
9.4 PERFORMANCE MONITORING AND PROGRAM CHANGES 32

10.0 ELEMENT - INTERNAL AUDITS 33

10.1 REGULATORY REQUIREMENTS FOR SSMP AUDITS 33
10.2 SSMP AUDITS DISCUSSION 33

11.0 ELEMENT - COMMUNICATION PROGRAM 34

11.1 REGULATORY REQUIREMENTS FOR COMMUNICATION PLAN ELEMENT 34
11.2 COMMUNICATION PLAN 34

List of Tables

Table 1-1. SSMP Update Schedule 4
Table 2-1. Responsibility for SSMP Implementation 5
Table 4-1 Likelihood of Failure Criteria 10
Table 4-2 Training Program 13

List of Appendices

Appendix A: Names, Positions, and Contact Information
Appendix B: Sanitary Sewer Collection System Map
Appendix C: Town of Windsor Inspection, Cleaning, Rehabilitation, and Repair, and Flow Chart
Appendix D: Town of Windsor SSMP Update Tracking Log
Appendix E: Town of Windsor SSMP Audit Checklist
Appendix F: Local Governing Board Approval and Communications
Appendix G: Agreement between Town of Windsor and Sonoma Water for operation and maintenance of the Airport-Larkfield-Wikiup Sanitation Zone wastewater treatment

EXECUTIVE SUMMARY

ES-1 BACKGROUND

The Waste Discharge Requirements (WDR) for Sanitary Sewer Systems were originally issued by the State Water Resources Control Board (SWRCB) through Order No. 2006-0003-DWQ to develop a regulatory mechanism to provide a consistent statewide approach for reducing sanitary sewer overflows or spills. The Town of Windsor (Town) is among those public agencies that own and operate sanitary sewer systems, greater than one mile in length, that were required to develop a Sewer System Management Plan (SSMP) in accordance with Order No. 2006-0003-DWQ. The Town developed an SSMP based on the WDR requirements, and the Town Council and District Board considered the original SSMP at a public meeting and then approved its implementation on July 15, 2009. Order No. 2006-0003-DWQ required SSMP updates every five years and program audits every two years.

In December 2022, the SWRCB adopted the updated WDR Order No. WQ2022-0103-DWQ, which became effective June 5, 2023. Per Section 5.5 and Attachment E1, Section 3.11 of the General Order, Plan updates are now due within six years after the required due date of the Enrollee's last Plan Update, and audits are to be conducted every three years. The 2025 SSMP update is the first since the reissued 2022 WDR.

ES-2 ORGANIZATION OF PLAN

This document presents eleven elements in the order presented in the WDR:

- Goals and Introduction
- Organization
- Legal Authority
- Operation and Maintenance Program
- Design and Performance Provisions
- Spill Emergency Response Plan
- Sewer Pipe Blockage Control Program
- System Evaluation, Capacity Assurance and Capital Improvements
- Monitoring, Measurement, and Program Modifications
- Internal Audits
- Communication Program

ES-3 SYSTEM OVERVIEW

The Town of Windsor owns, operates, and maintains a wastewater collection system that includes approximately 105 miles of public branch and trunk sewers, and over 1,800 manholes. Existing pipelines range in diameter from 4-inches to 42-inches and include two siphons located at Los Amigos and Rio Russo. In addition, the Town owns and operates two lift stations located at

Vintage Greens and Shiloh Greens since the decommissioning of the Deer Creek Lift Station, and a 7.2 million gallon per day (mgd) peak weekly wet weather design flow capacity Water Reclamation Facility located between Windsor Road and the Northwestern Pacific Railroad, north of Reimann Lane. The current Average Dry Weather Flow (ADWF) seen at the Water Reclamation Facility is 1.6 mgd. Construction of Windsor's original wastewater collection system, including the North Trunk Sewer, was completed in 1964. Other trunk sewers were constructed in 1970 (South Trunk Sewer), and in the late 1980s (Conde, Hembree, Brooks, and Los Amigos Trunk Sewers).

1.0 ELEMENT - GOALS AND INTRODUCTION

The goal of the SSMP is to provide a plan and schedule to: (1) properly manage, operate, and maintain all parts of the Town's sanitary sewer system, (2) reduce and prevent spills, and (3) contain and mitigate spills that do occur. These goals are intended to provide focus for Town staff to continue proactive management of its wastewater collection system.

1.1 Regulatory Context

The SWRCB first introduced WDR Order No. 2006-0003-DWQ "Sanitary Sewer System Waste Discharge Requirements" on May 2, 2006 to regulate sanitary sewer systems. The Town prepared an SSMP Development Plan and Schedule in 2007 and the first SSMP was completed in 2009. The SSMP is a living document developed and updated at regular intervals to help the Town effectively manage its sanitary sewer system in accordance with the current WDR. Subsequent updates were completed in 2014, 2015, and 2019.

On December 6, 2022, the State Water Board adopted the updated Order No. WQ 2022-0103-DWQ "Statewide Waste Discharge Requirements General Order for Sanitary Sewer Systems". In 2023, updates were made to the Spill Emergency Response Plan within six months of the adoption date (June 5, 2023) of the reissued WDR. The Reissued WDR requires the SSMP to be updated at a minimum every six years as specified in Specifications 5.5 and Attachment D of the Reissued WDR. The document included herein constitutes the six-year SSMP update of the 2019 version. Internal audits since the last SSMP update in 2019 have also been conducted and reported as required in 2021 and 2024.

1.1.1 SSMP Goals

The goals of the Town of Windsor SSMP are to:

- Properly manage, operate, and maintain the wastewater collection system;
- Work cooperatively with local, state, and federal agencies to investigate the causes of, minimize, and mitigate the impacts of spills;
- Meet all applicable regulatory notification and reporting requirements;
- Be 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 spills;
- Implement regular, proactive maintenance of the system to remove and control roots, debris, and fats, oils and grease (FOG) that may cause spills;

- Maintain adequate capacity to convey peak wastewater flows;
- Proactively reduce infiltration/inflow;
- Prioritize renewal and replacement of wastewater collection system facilities to maximize their useful life and optimize capital expenditures; and
- Maintain the SSMP, which will serve as a reference for the Town's sanitary sewer system management practices.
- Identify team members who developed the SSMP

In order to consistently achieve these goals, the Town has identified Collection System Performance Measures for the sanitary sewer collection system that are monitored, reviewed, and updated yearly as effectiveness indicators of the SSMP. Collection System Performance Measures are identified throughout the SSMP and are discussed in more detail in Element 9.

1.2 Sewer System Management Plan Update Schedule

The Town's last full SSMP update was in July 2019. This 2025 SSMP update includes modifications to ensure adherence to the requirements and format of the most current Statewide General Waste Discharge Requirements for Sanitary Sewer Systems: Order No. WQ 2022-0103-DWQ, adopted by the State Water Board on December 6, 2022, and effective date of June 5, 2023. The components of the Town's SSMP are implemented as stated in this document. The Town conducts periodic reviews of its entire SSMP to ensure compliance and implementation of the activities here within.

See Table 1-1 below for the schedule of SSMP updates and audits. Per Section 5.5 and Attachment E1, Section 3.11 of the General Order, Plan updates are due within six years after the required due date of the Enrollee's last Plan Update. Per Section 5.4 and Attachment E1, Section 3.10 of the General Order, the Audit Report is due within six months after the end of the required 3-year audit period. Generally, audits will cover the period since the last audit or SSMP update.

Table 1-1. SSMP Update Schedule

Activity	Due Date
2025 Updated SSMP Upload to CIWQS and LRO Certification	By August 2, 2025
Submit Electronic Sanitary Sewer System Service Area Boundary Map	By December 31, 2025
Prepare for SSMP Internal Audit	August 2, 2027[1]
Report Due for Internal Audit	February 2, 2028[1]
2031 SSMP Update	August 2, 2031[1]

[1] Exact date(s) is an estimate as future dates may not have been populated in CIWQS at the writing of this report. Check SWRCB Website with WDID for updates.

1.3 Sewer System Asset Overview

The Town of Windsor, incorporated in 1992, is located in central Sonoma County, California, approximately seven miles northwest of the City of Santa Rosa and 20 miles east of the Pacific Ocean. Highway 101 bisects the Town and provides regional access by connecting California's northern coastal counties with the San Francisco metropolitan area 60 miles to the south. The population was 26,344 as of the 2020 census.

The Town of Windsor owns, operates, and maintains a wastewater collection system that includes approximately 105 miles of public branch and trunk sewers, and over 1,800 manholes. The majority of the system is gravity fed, with two forced mains within town limits, Vintage Greens is approximately 900 feet, and Shiloh Greens is 650 feet. A connection added in 2024 to receive wastewater from the decommissioned Airport-Larkfield-Wikiup Sanitation Zone treatment plant is 3,084 feet. A map of the collection system and service area boundary is in Appendix B. Existing pipelines range in diameter from 4 inches to 48 inches and include two inverted siphons located at Los Amigos and Rio Russo. Approximately 80 percent of the existing collection system is comprised of pipelines with diameters 8 inches and smaller. The majority of the town is residential with approximately 93.2% of service connections residential, 6.2% commercial, and 0.6% industrial.

In addition, the Town owns and operates two lift stations located at Vintage Greens and Shiloh Greens since the decommissioning of the Deer Creek Lift Station, and a 7.2 million gallon per day (mgd) peak weekly wet weather design flow capacity Water Reclamation Facility located between Windsor Road and the Northwestern Pacific Railroad, north of Reimann Lane. The current Average Dry Weather Flow (ADWF) seen at the Water Reclamation Facility is 1.6 mgd. Construction of Windsor's original wastewater collection system, including the North Trunk Sewer, was completed in 1964. Other trunk sewers were constructed in 1970 (South Trunk Sewer), and in the late 1980s (Conde, Hembree, Brooks, and Los Amigos Trunk Sewers).

2.0 ELEMENT - ORGANIZATION

The intent of this section of the SSMP is to identify the Town staff members responsible for implementing this SSMP, responding to spill events, and meeting the spill 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 Organization Element

The SSS WDR requires that the Organization element of the SSMP provides 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 spills, from receipt of a complaint or other information, including the person responsible for reporting spills to the State and Regional Water Boards and other agencies if applicable.

2.2 Organization

2.2.1 Background

The Town of Windsor's wastewater collection system is managed by the Department of Public Works. For the purposes of this document, references to the Town of Windsor and Town personnel are synonymous with the Windsor Water District and District personnel.

2.2.2 Organization Chart

The Town's Public Works organizational chart related to management, operation, and maintenance of the wastewater collection system can be found on the Town's website at www.townofwindsor.com. The organizational chart is updated regularly to reflect current departmental names and titles.

2.2.3 Authorized Representative and Staff Descriptions

Public Works Director / Town Engineer – Town's authorized representative in all wastewater collection system matters. Responsible for directing, developing, implementing, evaluating, and administering the operations and staff required to design, construct, operate and maintain the Town's street, storm water, water and sewer infrastructure. Recommends approval of the Town Standards. The Public Works Director reports to the Town Manager and is responsible for Public Works Operations and Engineering programs and activities.

Deputy Director of Operations - Reports to the Public Works Director / Town Engineer. The Deputy Director of Operations manages the maintenance of all public works for the Town, including the wastewater collection system. The Deputy Director of Operations is authorized to act on Public Works Director / Town Engineer's behalf when required and is responsible for

notifying them in the event of a spill. Responsibilities include budget development to support existing programs and maintenance activities. The Deputy Director of Operations is a designated Legally Responsible Official (LRO) or duly authorized representative to prepare, certify and submit electronic spill reports to the RWQCB and SWRCB and to notify other government agencies.

Collection/Reclamation System Supervisor - Reports to the Deputy Director of Operations. The Collection/Reclamation System Supervisor is responsible for supervising employees and performing maintenance tasks for the wastewater collection system, the water distribution system, storm drains and creeks, and the recycled water distribution system. The Collection/Reclamation System Supervisor executes traffic control plans and schedules maintenance repair activities. Responsibilities include documentation and coordination of activities related to the collection system. The Collection/Reclamation System Supervisor is authorized to act on the Deputy Director of Operations' behalf when required. and may be a designated LRO or duly authorized representative to prepare, certify and submit electronic spill reports to the RWQCB and SWRCB and to notify other government agencies.

Utility Maintenance Worker I and IIs - Supports the Collection/Reclamation Supervisor and collectively perform a broad range of duties associated with inspection, maintenance, and repair of the sewer collection system.

Deputy Director of Engineering - Reports to the Public Works Director / Town Engineer. The Deputy Director of Engineering and is responsible for management of the Engineering Division of the Public Works Department, the Capital Improvement Program, budgeting, and supervision of technical staff. Responsibilities include development and recommendation of Town Standards for the wastewater collection system. The Deputy Director of Engineering also develops and recommends policies and procedures pertaining to wastewater collection and water reclamation system engineering. The Deputy Director of Engineering reviews and recommends approval of new development or re-development projects and their connection to the Town's wastewater system.

Senior Civil Engineer, Engineering Division - Reports to the Deputy Director of Engineering and is responsible for managing the Utility Engineering Staff of the Public Works Department. The Senior Civil Engineer provides engineering support to Operations and Maintenance staff for engineering and public works project bidding.

Deputy Director of Water and Environmental Management – Reports to the Public Works Director / Town Engineer and is responsible for communicating regulatory information and pretreatment matters to executive staff. Oversees the management of the Water Reclamation Plant CIP.

Environmental Program Manager – Reports to the Deputy Director of Water and Environmental Management. Oversees the Industrial Waste Program. Conducts or assists spill sampling and training as necessary. The Environmental Program Manager serves as the primary auditor for the SSMP.

Responsibility for SSMP implementation within the Town is shown in Table 2-1. The names, positions, and contact information for each of the Town staff responsible for implementing specific measures of this SSMP are included in Appendix A.

2.2.4 Spill Reporting Chain of Communication

Sanitary system spill detection, notification, response and reporting processes will be described in detail in Element 6 - Spill Emergency Response Plan.

Table 2-1. Responsibility for SSMP Implementation

SSMP Element	Description	Staff Responsible
Goals and Introduction	Lead staff in the support and updating of SSMP goals	PW Director/Town Engineer
Organization	Update organizational information; identify and update spill responding and reporting chains of communication and other SSMP assignments	PW Director/Town Engineer
Legal Authority	Uphold the Town's codes and ordinances; draft new ordinances as needed	PW Director/Town Engineer
Operation and Maintenance Program	Update sanitary sewer maps, implement O&M activities and rehabilitation/replacement program; implement staff training activities	Collection/Reclamation System Supervisor
Design and Performance Provisions	Ensure that all construction projects meet the Town's standards; update standards; facilitate inspection of public works projects	Deputy Director of Engineering
Spill Emergency Response Plan (SERP)	Implement and update plan; implement SERP training	Deputy Director of Operations
Sewer Pipe Blockage Control Program	Review and implement FOG program	Collection/Reclamation System Supervisor
System Evaluation, Capacity Assurance and Capital Improvements	Regularly assess capacity requirements for the sewer collection system; incorporate recommendations in the Town's Capital Improvement Plan; implement necessary improvements	Senior Civil Engineer
Monitoring, Measurement, and Program Modifications	Monitoring implementation of and assessing success of the overall SSMP program elements; identify trends in key performance measures and provide recommendations for improvement	Deputy Director of Operations
Internal Audits	Oversee SSMP audits	Environmental Program Manager
Communication Plan	Manage communication of SSMP activities	Deputy Director of Operations
Overall SSMP Program		**PW Director/Town Engineer**

Last Revised: June 2025

3.0 ELEMENT - LEGAL AUTHORITY

The intent of this section of the SSMP is to identify where the Town has established legal authority for the management, planning, design, and operation and maintenance of the Town's sanitary sewer system.

3.1 Regulatory Requirements for Legal Authority Element

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

- 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.);
- Require that sewers and connections be properly designed and constructed;
- Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Town;
- Limit the discharge of fats, oils, and grease and other debris that may cause blockages; and
- Enforce any violation of its sewer ordinances.

3.2 Town of Windsor Legal Authority

The Town establishes its legal authority regarding sewer collection systems through the following documents:

- Town of Windsor Municipal Code: The Town of Windsor establishes significant portions of its legal authority regarding its sewer collection system through the Town's Municipal Code. Title XII Windsor Water District, Chapter 4, Sewer, addresses the five components of the Legal Authority requirement in full or in part. The Municipal Code can be found on the Town's website (www.townofwindsor.com).
- Town Design and Construction Standards: The Town's Design and Construction Standards (Revised April 2015) contain standards, specifications, and details for the water system, sewer system, streets, drainage and grading applications, and construction. The Design and Construction Standards can be found on the Town's website (www.townofwindsor.com).
- County Health Code: Chapter 24, Sewers and Sewage Disposal of the County Health Code provides certain minimum standards, provisions and requirements for sewers, and use of materials in sanitary sewerage facilities within the county.

3.2.1 Legal Authority Requirements

3.2.1.1 Prevention of Illicit Discharges

Town of Windsor Municipal Code. The Town's Municipal Code (Title XII, Chapter 4) prevents illicit discharges into its wastewater collection system, limits the discharge of fats, oils, and grease (FOG) and other debris that may cause blockages, and enables enforcement of any violation of its sewer ordinances as follows. Additional code sections related to FOG and enforcement are referenced later in this section.

- Article 1. Sewer System. 12-4-105 Prohibited Substances: This section of the Municipal Code prohibits discharge of waste that might harm or adversely affect the wastewater treatment plant.
- Article 1. Sewer System. 12-4-135 Separation of Storm Drainage and Sewage: This section of the Municipal Code prohibits the connection of storm drainage to the sewer system.
- Article 4: Wastewater Treatment. 12-4-406 Prohibited Wastes: This section of the Municipal Code lists General and Specific Prohibitions.
- Article 4: Wastewater Treatment. 12-4-407 Local Limits: This section of the Municipal Code provides a detailed list of prohibited wastes, including fats, oils and grease as described further below.

County Health Code. Chapter 24, Article IV of the County Health Code contains wastewater discharge regulations that set uniform requirements for discharges into the wastewater collection and treatment system and enable the agency to comply with the administrative provisions of the clean water grant regulations, the water quality requirements set by the Regional Water Quality Control Board and the applicable effluent standards, and any other discharge criteria which are required or authorized by state or federal law, and to derive the maximum public benefit by regulating the quality and quantity of wastewater discharged into those systems.

3.2.1.2 Proper Design and Construction of Sewers and Connections

Town of Windsor Municipal Code. The Town's Municipal Code (Title XII, Chapter 4) addresses proper design and construction of sewers and connections as follows:

- Article 2. Sewer Construction. This section of the Municipal Code details permits and regulations for design and construction of sewers, including the need to adhere to design standards (Town of Windsor, Design and Construction Standards).
- Article 4. Wastewater Treatment. 12-4-405 Technical Requirements: This section of the Municipal Code details technical provisions for design of sewers.

Town of Windsor Design and Construction Standards. The Town's Design and Construction Standards contain standards, specifications, and details for the proper design and construction of sewers and connections.

3.2.1.3 Access for Maintenance, Inspection and Repairs of Publicly Owned Sewers

Town of Windsor Municipal Code. The Town's Municipal Code (Title XII, Chapter 4) addresses access for maintenance, inspection and repairs of publicly-owned sewers as follows:

- Article 1. Sewer System. 12-4-140 Supervision of Sewer Connections: This section of the Municipal Code allows for the ability to require that sewers and connections be properly designed and constructed
- Article 4. Wastewater Treatment. 12-4-420. Right of Entry: This section of the Municipal Code permits authorized employees to enter all properties served by the District for the purposes of inspection, observation, measurement, sampling and testing.
- Article 4. Wastewater Treatment. 12-4-400 General: This section of the Municipal Code requires private laterals to be maintained by the owner of the property.

In general, property line sewer cleanouts do not exist in Windsor and are not required under the District's Standards for sewer laterals. Therefore, maintenance of sewer laterals is the responsibility of the property owner served by the lateral.

3.2.1.4 Limit Discharges of Fats, Oils and Grease, and Debris

Town of Windsor Municipal Code. The Town's Municipal Code (Title XII, Chapter 4) further limits discharges of fats, oils and grease (FOG) as follows:

- Article 4: Wastewater Treatment. 12-4-407 Local Limits: This section of the Municipal Code includes requirements for Industrial Waste Discharge Permits, a list of prohibited wastes, and requirements for pretreatment of wastewaters. Article 4: Wastewater Treatment.
- Article 4: Wastewater Treatment. 12-4-415 Grease Removal Devices: This section of the Municipal Code grants to the authority to require installation of grease removal devices at a type and capacity acceptable to the District and requires regular cleaning and maintenance.

County Health Code. Similar to the Town's Municipal Code, the County Health Code (Chapter 24, Article IV) contains regulations regarding prohibitions on discharges, including fats, oils and grease, and debris.

3.2.1.5 Enforcement Measures

The Town's Municipal Code (Title I, Chapter I) addresses code violation enforcement measures

- Article 2: Code Enforcement. 1-1-101 to 1-1-280: This section of the Municipal Code describes enforcement measures available to the Town for violations of the Municipal Code and Town Ordinances.

The Town's Municipal Code (Title XII, Chapter 4) also addresses enforcement measures specific to sewer system violations:

- Article 1. Sewer System.12-4-110 Abatement of Nonconforming Wastewater Discharge: This section of the Municipal Code requires that all costs of abatement from noncompliant discharge be borne by the user.
- Article 4 Wastewater Treatment. 12-4-457 to 12-4-476: This section of the Municipal Code describes available enforcement mechanisms pertaining to non-residential users.

Resolution NO. 1867-18 WWD Enforcement Response Plan. Contains detailed procedures indicating how the Town will investigate and respond to instances of non-residential user noncompliance.

3.2.2 Agreements with Satellite Collection Systems

The Town of Windsor and Sonoma Water have an agreement for the operation and maintenance of the Airport Larkfield Wikiup Sanitation Zone. The full agreement between the Town of Windsor and Sonoma Water is included as Appendix G.

4.0 ELEMENT - OPERATION AND MAINTENANCE PROGRAM

The intent of this section of the SSMP is to document the Town's Operations and Maintenance (O&M) Program and identify program additions.

The WDR states that the Town shall develop and implement an O&M Program which should include the following:

- The Town 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 Town must describe routine preventive operation and maintenance activities by staff and contractors; including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance program should have a system to document scheduled and conducted activities, such as work orders;
- The Town must develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;

- The Town must provide equipment and replacement part inventories, including identification of critical replacement parts; and
- The Town must provide training on a regular basis for staff in sanitary sewer system operations, maintenance, and require contractors to be appropriately trained.

4.1 Collection System Map

The Town has transitioned to a GIS-based collection system mapping system, with the assistance of Geographic Technology Group (GTG), to create a GIS from existing CAD-based maps. In addition to providing more powerful mapping options, the collection system GIS can collect, store, and organize data for each individual piece of infrastructure in the collection system. This data will include attribute data such as pipeline length, diameter, and slope, as well as various O&M data such as cleaning frequency and inspection result history. As an Information Management (IM) tool, the collection system GIS enhances the Town's ability to proactively manage the collection system, and to visually track and display collection system management activities and successful implementation of O&M goals. GIS updates will be continuous and ongoing. Additionally, the GIS will serve as the basis for the Town's upcoming Computerized Maintenance Management System (CMMS), which is discussed in more detail below.

The GIS information will be used to do an update to the Town's base map in the future. A sample of the current map sheets can be seen in Appendix B.

4.1.1 Preventive Operation and Maintenance Activities Gravity Sewers

The GIS sanitary sewer collection system asset inventory is updated regularly as needed and is kept on file at Public Works. The Town currently uses a combination of in-house and contract services for routine and emergency sewer cleaning. The Town prioritizes gravity sewer condition assessment, repair, maintenance, rehabilitation, and replacement using a risk-based system that is designed to minimize the risk of occurrence and impact of spills. Gravity sewers within 200 feet of Windsor Surface Waters are prioritized as the highest risk during this process due to the potential impact of spills on these waters. Gravity sewers not within 200 feet of Windsor Surface Waters are prioritized for condition assessment, repair, maintenance, rehabilitation, and replacement using a combination of factors that evaluate both the likelihood of failure and the consequence of failure for each gravity sewer, as shown in the table below.

Table 4-1 – Likelihood of Failure Criteria			
Failure Mode	**Description**	**Criteria**	**Data Source**
Structural Failure	Pipe cracks or breaks can progress to pipeline collapse. Structural defects increase with time as the pipes approach the end of their useful lives.	Remaining useful life	Installation date and pipe material: AutoCAD Map Annotation or Improvement Plan Data
Washout	The closer the pipeline and manholes are to open-channel waterways, the more likely the occurrence of pipe movement and damage from soil displacement due to scour and/or flooding damage.	Located in floodplain or floodway	GIS or other locational data
Maintenance Failure	The probability of maintenance-related blockages and spills occurring increases as root intrusion, grease accumulation and sediment accumulation occurs.	Located within a Town-defined high frequency maintenance cycle or hotspot zone	Hotspot map or database
Capacity-Related Spills	The likelihood of a capacity-related spill increases when projected flows exceed full-pipe gravity flow capacity.	Hydraulic deficiency	I&I Study; Master Plan; Collection System Plan

The Town uses its field crews to complete most emergency repairs. The Town contracts with several external repair contractors to correct larger emergency problems. Repairs are completed in priority order. Appendix C contains a flow chart, which demonstrates the Town's Gravity Main Inspection and Cleaning Prioritization strategy.

The Town maintains a list of Hot Spots, primarily grease problem lines that are cleaned with increased frequency. The hot spot list is discussed in more detail below.

4.1.2 Lift Stations and Force Mains

The Town's force mains O&M program consists of periodic inspections and corrective maintenance activities conducted by Town 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 manhole permits access for upstream cleaning of the force mains.

The Town's sewer maintenance division is responsible for the Town's two lift stations. The Town has developed an inspection and maintenance plan for the lift stations, which includes weekly, monthly and quarterly activities for each lift station. Lift station inspections and maintenance are tracked in logbooks, as well as on inspection forms, and in maintenance reports. The logbooks are kept at each lift station, while the inspection forms and maintenance reports are kept in the Collection & Reclamation System Supervisor's office. Backup generators for the lift stations are tested monthly.

All lift station alarms currently go through SCADA to notify Town personnel, which is further discussed in Element 6.

4.1.3 Non-Routine Maintenance

The Town utilizes contract services for emergency cleaning and a combination of contract and in-house services for cleaning of known troubled 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 troubles, pump station malfunction, unexpected sewer odor, etc. Sewer complaints are investigated, and appropriate actions are taken to resolve the source of the problem.

4.1.4 Information Systems/Data Collection

The Town currently tracks maintenance activities using paper work orders. The Town is in the process of identifying, purchasing, and implementing a computerized maintenance management system (CMMS) designed for its public work assets. The Town is investigating computer-based program geared toward inventorying pipes, manholes, and other assets; storing results of inspections and other maintenance data; generating work orders for cleaning, inspection, maintenance, and repair activities; and maintaining histories of problems, blockages, complaints, within the collection system. Complete implementation of the CMMS is one of the Collection System Management Goals identified for this SSMP. 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.

4.1.4.1 Special Needs Maintenance

The Town's has a Hot Spot sewer cleaning program for identified problematic line segments to prevent blockages and spills on high-risk segments. Frequencies of cleaning cycles are adjusted based on the observations during the sewer cleaning. The frequency will be shortened for line segments with moderate to heavy results and extended for line segments with light or clear results. The Hot Spot list is a living document. Locations may be added or removed based on identified need and risk.

4.1.4.2 Emergency Maintenance

The Town's collection system facilities have periodically experienced blockages and/or spills that require unplanned maintenance under emergency conditions. As part of this SSMP effort, the Town developed updated emergency maintenance procedures. Refer to Element 6, Overflow Emergency Response Plan for more information.

4.2 Prioritization Factors for Sewer Condition Assessment and Rehabilitation Planning

As described above, the Town prioritizes condition assessment, repair, maintenance, rehabilitation, and replacement according to the risk of occurrence and impact of spills. Gravity sewers within 200 feet of Windsor Surface Waters have been given the highest priority. All gravity sewers within 200 feet of Windsor Surface Waters have had condition assessment completed, and gravity sewers not within 200 feet of Windsor Surface Waters will have condition assessment completed by February 2024. Condition assessment is based upon National Association of Sewer

Service Companies (NASSCO) Pipeline Assessment and Certification Program (PACP) rating system. Higher priority is assigned to gravity sewers with a greater PACP rating.

After condition assessment, gravity sewers are repaired, maintained, rehabilitated, or replaced as shown in the flow chart included in Appendix C. Note that factors including both the likelihood of gravity sewer failure and the consequences of gravity sewer failure will be evaluated by the Town when making prioritization determinations. The specific methods for repair, maintenance, rehabilitation, or replacement are determined based upon the unique conditions identified for each gravity sewer or group of gravity sewers.

4.3 Training Program

The Town has implemented a training schedule the includes training on preventive and emergency procedures, spill emergency response, CCTV and other types of inspection activities, record keeping, and health and safety procedures.

Initial training upon hire includes spill response for all new staff. New staff will not be responsible for Spill Volume Estimating, Spill Recovery Estimating and Water Quality Sampling until they have received sufficient training. Training occurs on these topics on the established schedule with the rest of the staff. Should new staff be required to be responsible for Spill Volume Estimating, Spill Recovery Estimating or Water Quality Sampling prior to the scheduled training event, a special training will be held to address these topics.

The Town requires contractors working in the collection system to have OSHA-required training (i.e., confined space certification, etc.).

Table 4-2 – Training Program

Training	Staff Required to be Trained	Frequency
Spill response	• Deputy Director of Operations • Collection & Reclamation Systems Supervisor • Utility Maintenance Workers • Environmental Program Manager Optional: • Engineer I	Annually
Spill Volume Estimating	• Collection & Reclamation Systems Supervisor • Utility Maintenance Workers	Biennially
Spill Recovery Estimating	• Collection & Reclamation Systems Supervisor • Utility Maintenance Workers	Biennially
Water Quality Sampling	• Environmental Program Manager • Laboratory Supervisor and Analyst • Collection & Reclamation Systems Supervisor • Utility Maintenance Workers	Annually

4.4 Equipment and Parts Inventory

The Town keeps a master inventory list of all consumables, which is updated regularly. Inventory lists are kept for Town equipment, such as vehicles, heavy equipment, and power tools. Each lift station has its own inventory list for replacement parts and fittings. The Town currently has equipment on hand to bypass sewer failures and pump station failures, such as portable pumps, quick connections for hoses, and the capacity to conduct long run flows.

5.0 ELEMENT - DESIGN AND PERFORMANCE PROVISIONS

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

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

5.1 Design and Construction Standards for Sewer Systems

5.1.1 Town of Windsor Design and Construction Standards

The Town's Design and Construction Standards (July 2023) contain standards, specifications, and details for the water system, sewer system, streets, drainage and grading applications, and construction. The Design and Construction Standards can be found on the Town's website (www.townofwindsor.com). The Town reserves the right to update the standard plans and specifications as needed.

5.1.2 Design and Construction Standards for New Sewer Systems

Sewer system design standards are included in Part I, Series 400 of the Town's Design and Construction Standards and include design standards for the following:

- Connecting to an existing public sewer;
- Pipe materials and alignment;
- Manholes and cleanouts;
- Access;
- Capacity and design flows;
- Slopes and pipe depths;
- Clearance from other utilities;
- Required fittings; and
- Other design criteria.

Sewer system construction standard specifications are in Part II, Series 400 of the Town's Design and Construction Standards and include construction standards for the following:

- Sewer pipeline materials;
- Excavation and backfill;
- Manhole and pipeline installation;
- Sewer laterals and services;
- Trench resurfacing;
- Sewer line testing; and
- Sewer structures.

Standard drawings for sewer details are included in Part III, Series 400 of the Town's Design and Construction Standards. These requirements provide reasonable assurance that sewers constructed to these specifications and standards will perform adequately with minimal infiltration or maintenance problems and will maintain their structural integrity for the duration of their intended useful lives.

5.1.3 Design and Construction Standards for Lift Stations and Other Appurtenances

Lift station plans and specifications are not included in the standards. Design standards and construction specifications for lift stations have historically been developed on a case-by-case basis as needed for construction of specific lift station facilities or for improvements to existing lift station facilities.

Specifications for lift stations will be developed as needed on a project-specific basis for any new lift stations or lift station rehabilitation projects being implemented.

5.1.4 Design and Construction Standards for Rehabilitation and Repair of Existing Sewer Systems

Rehabilitation and repair of existing sewer lines are not currently included in the standards. Design standards and construction specifications for rehabilitation and repair of existing sewer systems have historically been developed on a case-by-case basis as needed for a specific project.

Specifications for rehabilitation and repair of existing sewer systems will be developed as needed on a project-specific basis for any new rehabilitation projects being implemented.

5.2 Procedures and Standards for the Inspection and Testing of New and Rehabilitated Sewer Facilities

Standards for testing and inspecting new and rehabilitated sewers and force mains are detailed in the Town's standards and can be found at www.townofwindsor.com. The Town requires infiltration and exfiltration tests using water to be completed on all portions of the sewer including the manhole. Low pressure air testing may be used in lieu of water testing upon Town approval.

Closed circuit television inspection is required for all newly constructed sewers.

6.0 ELEMENT - SPILL EMERGENCY RESPONSE PLAN

The intent of this section of the SSMP is to document Town's Spill Emergency Response Plan (SERP). The full SERP is a stand-alone document that contains all the key elements necessary for an appropriate spill response (notification, emergency incident response, reporting, and impact mitigation), is updated as necessary, and can be found at the Town of Windsor Public Works Department. Regulatory Requirements for the Spill Emergency Response Plan

- The Town shall develop and implement a Spill Emergency Response Plan (SERP) to ensure prompt detection and response to spills, to reduce spill volumes, and to collect information for prevention of future spills. At a minimum, SERP must include the following 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.

6.1 SERP Goals

The Town's goals with respect to responding to spills are:

- Respond quickly to minimize the volume of the spill;
- Eliminate the cause of the spill;
- Contain the spilled wastewater to the extent feasible;
- Minimize public contact with the spilled wastewater;
- Mitigate the impact of the spill; and
- Meet the regulatory reporting requirements.

6.2 Spill Detection

The processes that are employed to notify the Town of the occurrence of a spill include: observation by the public, receipt of an alarm, or observation by Town Staff during the normal course of their work.

6.2.1 Public Observation

Public observation is the most common way that the Town is notified of blockages and spills. Contact information for reporting sewer spills and backups are on the Town's website: www.townofwindsor.com.

The Town's website directs residents to call (707) 838-1000, the Town's Main Number, to report sewer concerns.

The public also contacts the Public Works department directly. The Town's Public Works telephone number is (707) 838-1006.

After hours, calls to the Main Number and Public Works telephone numbers concerning a sewer problem are redirected to the Town's Answering Service, and from there to the Maintenance Personnel on-call cell phone. On the Town's website, for any sewer concern, the telephone number listed is (707) 838-1000.

6.2.1.1 Normal Work Hours

The Town's regular working hours are 7 a.m. to 6 p.m., Monday through Thursday, except for holidays. The Town maintenance division's regular working hours are 7 a.m. to 5:30 p.m., Monday through Thursday. When a report of a sewer spill or backup is made, a Public Works staff receives the call, takes the information from the caller, and communicates it to the Collection and Reclamation Systems Supervisor, who responds to the site and/or dispatches a field crew.

6.2.1.2 After Hours

After hours calls made to Public Works, (707) 838-1006, regarding sewer problems are directed to an answering service. Calls to (707) 838-1000 are automatically redirected to the answering service. The answering service receives the call, takes the information from the caller, and contacts the Maintenance on-call cell phone and communicates to the on-call Maintenance Personnel. If the on-call Maintenance Personnel does not respond, the answering service contacts the next person on the contact list (typically the Collection & Reclamation System Supervisor, then the Deputy Director of Operations, and so on up the chain of command). The on-call Maintenance Personnel responds to the site and, if necessary, calls additional Maintenance Workers for assistance.

6.2.2 Receipt of Alarm

The Town's two lift stations have alarm systems that automatically notify the on-call Maintenance cell phone during both working hours and after hours via text. If the on-call Maintenance Personnel does not clear the alarm within 15 minutes, the system will send another text message. This cycle will continue until the alarm is cleared by the on-call Maintenance Personnel or the alarm condition no longer exists.

6.2.3 Town Staff Observation

Town 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 Town staff who respond to emergency situations. Work orders are issued to correct non-emergency conditions.

6.3 Spill 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 response procedure flow chart is included in the Town's SERP and is also kept in field binders in maintenance vehicles for quick reference.

The SERP outlines spill response procedures for sanitary sewer overflows, which identifies, and outlines steps needed to be followed when responding to a sanitary sewer spill. The goals of the SERP are to protect the public from hazards, identify source of overflow and determine ownership, perform clean up and abatement, complete proper reporting procedures and provide good customer service. The SERP provides detailed response procedures to the first responder and field crew responsible for identifying the source of the problem, correcting the cause of the overflow, and cleaning the surrounding area. The SERP also includes reporting forms for the responder to complete.

The SERP spill response process includes initial response, available contractor services for larger spills, and spill containment and capture measures. Clean-up procedures for spills in the drainage conveyance system are described as well as spill area clean-up procedures.

6.4 Priorities

The first responder is defined as the Town of Windsor Public Works Maintenance Worker who is initially notified of a possible spill and who arrives first at the reported location of the possible spill. The first responders' priorities are:

- To follow safe work practices
- To respond promptly with the appropriate equipment
- To restore the flow as soon as practical
- To contain the spill wherever feasible
- To minimize public access to and/or contact with the spilled sewage.
- To promptly notify the Collection and Reclamation Systems Supervisor or the Deputy Director of Operations in the event of any spill
- To return the spilled sewage to the sewer system
- Disinfect any contaminated areas
- To restore the area to its original condition (or as close as possible)

6.5 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 Town 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 responder and/or the public:

- Utilize control devices such as signs, cones, delineators, lights, barricades, when your 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; or splash goggles as needed, in compliance with the Town of Windsor Code of Safe Work Practices.
- Protect your back: Utilize proper lifting, pulling and bending techniques when removing a sanitary sewer access cover.

If staff encounter access restrictions or unsafe conditions that prevent the Town's compliance with spill response requirements or monitoring requirements, the Town shall provide documentation of access restrictions and/or safety hazards in the corresponding required report.

6.6 Recovery and Cleanup

The recovery and cleanup phase begin when the flow has been restored, and the overflow of sewage has been stopped. The Town may use contract services for recovery and cleanup actions if Town equipment is unavailable. Typically, the spill recovery and clean up procedures are:

- Estimate the Volume of Spilled Sewage: Wherever possible, document the estimate using photos of the spill site before the recovery operation using methods consistent with guidance in the SERP and SMART (Sanitary Sewer Overflow Manual and Reliability Tool) methods guidance documents.
- 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 a spill event. Where cleanup is beyond the capabilities of Town staff, a cleanup contractor will be used.

    - Private Property
        - Offer assistance with clean-up and advise resident or property owner who to contact for questions regarding claim procedures.
        - Contact insurance for damage assessment.
    - 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 the wash water.
        - Disinfect all areas that were contaminated from the overflow using the disinfectant solution. Apply minimal amounts of the disinfectant solution using a hand sprayer. Document the volume and application method of disinfectant that was employed. Disinfectant is not to reach the storm drain system.
        - Allow area to dry. Repeat the process if additional cleaning is required.
    - 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.
        - Allow the area to dry. Repeat the process if additional cleaning is required.
    - Natural Waterways
        - The OES, the Regional Board, and the California Department of Fish and Wildlife (CDFW) should be notified in the event a spill impacts any surface water or

riparian habitat. CDFW will provide the professional guidance needed to effectively clean up spills that occur in these sensitive environments.

- Clean up should proceed quickly in order to minimize negative impact. Sewage causes depletion of dissolved oxygen which will kill aquatic life.
- Any water that is used in the cleanup should be de-chlorinated prior to use (chlorine compounds are toxic to aquatic life).

- Wet Weather Modifications
  - Omit flushing and sampling during heavy storm events with heavy runoff where flushing is not required, and sampling would not provide meaningful results.

6.7 Spill Monitoring Requirements

Forms are located in the SERP to ensure that all monitoring requirements are conducted. These documents include items related to visual assessments, field documentation, including photographs, and sample collection, if necessary.

6.7.1 Spill Location and Spread

All spill locations will be visually assessed using photography and GPS. Staff responding to the spill shall document the critical spill locations, including:

- Photography and GPS coordinates for the system location where the spill originated
- Photography for:
  - Drainage conveyance system entry locations
  - Location of discharge into surface waters, as applicable,
  - Extent of spill spread, and
  - The location(s) of clean up.

6.7.2 Receiving Water Visual Observations

Staff will record visual observations of the following to be used for documentation and reporting purposes:

- 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, discoloration of receiving water and impact to receiving water.

6.7.3 Water Quality Sampling and Analysis

Water quality sampling and testing is required whenever 50 gallons or more of spilled sewage enters surface waters to determine the extent and impact of the spill. Sampling is required to be conducted no later than 18 hours following the Town's knowledge of a potential discharge to a

surface water. The first responder should contact the Collection and Reclamation Systems Supervisor to arrange the collection of samples:

Sample locations include the following:

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

Samples should be collected in accordance with the Water Quality Sampling Protocols that are included in the SERP and maintenance field binders.

6.8 Spill Notifications

6.8.1 Internal Spill Reporting Procedures

6.8.1.1 Category 1 Spills

The first responder will immediately notify the Collection & Reclamation System Supervisor (working hours or after hours) who will in turn notify the Deputy Director of Operations.

The Collection & Reclamation System Supervisor (working hours or after hours) will meet with field crew(s) at the site of the spill event to assess the situation and to document the conditions with photos.

The first responder will fill out the Sanitary Sewer Spill Reporting Form and turn it in as soon as possible to the Collection & Reclamation System Supervisor (working hours or after hours).

In the event of a very large spill or a spill in a sensitive area, the Deputy Director of Operations will notify the Public Works Director. If necessary, the Public Works Director will notify the Town Manager. The Town Manager may notify the Town Council.

6.8.1.2 Category 2, 3 and 4 Spills

The first responder will fill out the Collection System Service Call/Spill Field Report and turn it in to the Collection and Reclamation Systems Supervisor by the start of the next workday.

6.8.2 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 Collection & Reclamation System Supervisor.

Creeks and streams that have been contaminated as a result of a spill 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 a spill occurs at night, the location should also be inspected the following day. The Maintenance Worker 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 Public Works Director/Town Engineer will obtain authorization from the Town Manager to contact or communicate with local media when significant areas may have been contaminated by sewage.

6.8.3 Other Affected Entity Notifications

Other entities may be impacted by a spill, such as health agencies, other local jurisdictions and water suppliers. These entities shall be notified as soon as possible so that they may initiate their own emergency response procedures. Notifications will be made by the Deputy Director of Operations, the Collection/Reclamation System Supervisor or an alternate designee.

6.9 Spill Reporting and Documentation

All required spill reporting must be submitted electronically to the online California Integrated Water Quality System (CIWQS) Database.

Water Code section 13271 reporting requirements stipulate 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 Sate, the Enrollee shall notify the California Office of Emergency Services and obtain a California 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.

In addition, the Town must confirm this notification within 24 hours after becoming aware of the discharge. The confirmation must be made to the Regional Water Quality Control Board.

For all spills, the Deputy Director of Operations will follow the process listed in the Spill Reporting Flow Chart, found in the SERP, along with corresponding response tables for each type of spill category. The LRO will ensure that monitoring, reporting and recordkeeping requirements listed in Section E1 of the General Order are followed.

All spills should be thoroughly investigated and documented for use in managing the sewer system and meeting established reporting requirements. The procedures for investigating and documenting spills, based on each spill category designation, are in the full SERP. Category 1 and 2 spills have a draft report, required to be submitted within three (3) business days and a certified spill report that is due within 15 calendar days of the spill end date. There is an additional spill technical report required to be submitted within 45 calendar days of the spill end date for individual Category 1 spills in which 50,000 gallons or greater is discharged to a surface water.

Monthly spill certifications are required for Category 3 and 4 spills, including months when no spills occurred. Annual Spill Reports are due April 1 of each year and are entered directly into the online CIWQS Sanitary Sewer System Database.

6.9.1 Spill Investigation

Each spill will have a subsequent spill investigation, to be submitted as part of the reporting process. The objective of the spill investigation is to determine the "root cause" of the spill and to identify corrective action(s) needed that will reduce or eliminate future potential for the spill 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 the completed Spill Reporting Form,
- Reviewing past maintenance records,
- Reviewing available photographs,
- Conducting inspections to determine the condition of the line segments in the spill area and reviewing the existing video and logs where available, 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.

6.10 Post Spill Event Debriefing

Every spill 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 spill 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 spill

events. The results of the debriefing should be recorded and tracked to ensure the action items are completed.

6.11 System Performance Analysis

A system performance analysis will be performed annually to determine the effectiveness of the Town's SSMP program and spill response. A 10-year system performance analysis will be included in the Annual Report submitted through CIWQS, following the requirements listed in the General Order.

6.12 Equipment

This section provides a list of specialized equipment that is required to support the Spill Emergency Response Plan.

6.12.1 Digital Camera

A digital or disposable camera is required to record the conditions upon arrival, during clean up, and upon departure.

6.12.2 Emergency Response Vehicle

A utility service truck is required to store and transport the equipment needed to effectively respond to sewer emergencies. The equipment and tools should include spilled sewage containment and clean up materials.

6.12.3 GPS Unit

GPS capable devices are required to determine the coordinates of spills.

6.12.4 Portable Pumps and Hoses

Portable pumps and piping will be used to pump around failed facilities and to recover spilled sewage. The Town maintains a variety of 4-inch and 6-inch pumps, piping, and hoses to support these activities. The portable pump required to support this plan is a 6-inch pump.

6.12.5 Spill Field Kit

A spill field kit containing all equipment needed for sampling collection is available, if needed. The spill field kit is maintained by the Town of Windsor Laboratory annually, or more frequently if needed.

6.13 Training

This section provides information on the training that is required to support this Spill Emergency Response Plan.

6.13.1 Town Personnel

6.13.1.1 Initial and Annual Refresher Training

All Public Works personnel who have a role in responding to, reporting, and/or mitigating a sewer system overflow will receive training specifically tailored to the SERP. The training schedule for the SERP is included with the Town's overall training schedule and is described in Element 4 of the SSMP. All new employees should receive training before they are placed in a position where they may have to respond. Current employees should receive annual refresher training on this plan and the procedures to be followed.

Any contractors working for the Town that may cause or respond to a spill should be notified that they are required to follow the notification and response procedures listed in the SERP, and where to find the most current version of the SERP.

6.13.1.2 Spill Response Drills

Periodic training drills should be held to ensure that employees 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, pump station failure, and lateral blockage). These drills will also review spill estimation procedures. The results and the observations during the drills should be recorded and action items should be tracked to ensure completion.

6.13.1.3 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 spill emergency response training event and should include date, place, content, name of trainer(s), and names of attendees.

7.0 ELEMENT - SEWER PIPE BLACKAGE CONTROL PROGRAM

The intent of this section of the SSMP is to document the Town's Fats, Oil, and Grease (FOG) Management Program and identify program additions.

7.1 Regulatory Requirements for the FOG Program

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

- An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;
- A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or

additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;

- The legal authority to prohibit discharges to the system and identify measures to prevent spills and blockages caused by FOG;
- Requirements to install grease removal devices (such as traps or interceptors) design standards for the grease removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;
- Authority to inspect grease producing facilities, enforcement authorities, and whether the Town has sufficient staff to inspect and enforce the FOG ordinance;
- An identification of sewer system sections subject to FOG blockages and establish a cleaning maintenance schedule for each section; and
- Development and implementation of source control measures, for all sources of FOG discharged to the sewer system, for each sewer system section identified in above.

7.2 Public Education Outreach Program

The Russian River Watershed Association (RRWA), of which the Town is a member, provides public education on the proper handling of household grease. The RRWA provides program support including door hangers and stickers for turkey fryers to educate the public on the proper disposal of FOG. The RRWA publishes a monthly environmental column in many local area newspapers and rotates in articles about proper grease and oil disposal, especially during the winter holiday season. The FOG Program section of the RRWA website provides the public with advice on how to "keep your pipes fat-free!" and includes resource links to locations where large and small quantities of cooking oil can be deposited for proper disposal and bio-diesel processing. Information about the RRWA FOG Program is available to the public online (http://www.rrwatershed.org/project/fats-oils-and-grease/).

In addition, the Town has developed its own set of outreach resources, including Frequently Asked Questions (FAQs) and informational brochures, for distribution to new developments and potential FOG dischargers within the Town.

7.3 FOG Source Control

The Town of Windsor actively manages FOG discharges into the sanitary sewer collection system. This management is accomplished through identifying and monitoring Food Service Establishments (FSEs) in order to ensure that these collection system users comply with Town of Windsor Municipal Code. As part of the identification and monitoring process, FSEs that have commercial kitchens or that do on-site cooking are required to have a Wastewater Discharge Permit. The Town uses a standardized permit template. Permits are issued for a maximum of five years, and each restaurant is expected at minimum every two years or more frequently as needed.

The Town has determined that the most effective manner to implement the FOG Source Control Program in the sanitary sewer collection system is to contract portions of the program. Currently conducted by the Sonoma County Water Agency (SCWA) . The major tasks of SCWA under the contract are listed below:

- Task 1: Administration
- Task 2: Fats, Oils, and Grease (FOG)
- Task 3: Industrial Program
- Task 4: Source Control
- Task 5: Incident Reporting
- Task 6: Sampling

7.4 Disposal of FOG

Local grease haulers can dispose of grease at a variety of regional locations including wastewater treatment plants and rendering facilities. As discussed in Section 7.2, the RRWA provides links to resources that provide locations where residents can take grease for disposal.

7.5 Legal Authority

The Town has legal authority to prohibit discharges of FOG to the wastewater collection system. See Element 3 Legal Authority for discussion of the Town's legal authority relating to FOG control.

7.6 Requirements to Install Grease Removal Devices

Grease removal devices are required for Food Service Establishments (FSE's) that have commercial kitchens or that perform on-site cooking, per the Town's Municipal Code. The Town maintains a list of SIUs and FSEs. The list of FSEs indicates whether each FSE requires a Wastewater Discharge Permit, and whether each FSE requires a grease removal device.

7.7 Authority to Inspect Grease Producing Facilities

As discussed in Element 3 – Legal Authority, the Town has the authority for "inspection, observation, measurement, sampling and testing" of dischargers to the Town's sewer system. This authority is passed on to SCWA per the contract for FOG Source Control.

7.8 Identification of Grease Problem Areas and Sewer Cleaning

The Town keeps records of sewer lines with grease-related problems. These grease-related problem lines are part of the Hot Spot program reviewed in Element 4. Grease lines are identified as Hot Spots during routines cleanings, from customer calls, during manhole inspections, or during CCTV inspection.

8.0 ELEMENT - SYSTEM EVALUATION, CAPACITY ASSURANCE AND CAPITAL IMPROVEMENTS

This section of the SSMP discusses the Town's capacity management measures, including the most recent Master Plan and recommended capacity improvement projects.

8.1 System Evaluation and Capacity Assurance Plan

The Town completed a comprehensive Collection System Master Plan (CSMP) in collaboration with GHD in 2020. The CSMP provides the Town with an evaluation of the collection system capacity under the existing and future Town of Windsor 2040 General Plan (2040 General Plan) buildout condition and provides recommendations to address hydraulic deficiencies and planned growth. The CSMP can be found on the Town's website at: www.townofwindsor.com.

8.2 Capacity Assessment and Design Criteria

The CSMP (August 2020) includes a capacity evaluation using hydraulic modeling, and identifies capacity-related improvement projects, based upon Peak Wet Weather Flow (PWWF) criteria. The CSMP can be found on the Town's website at: www.townofwindsor.com.

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 schedule and annual budgets for all wastewater (water reclamation) capital improvement projects (CIP) projects for Fiscal Years 2023-2028 are posted on the Town's website (www.townofwindsor.com).

9.0 ELEMENT - MONITORING, MEASUREMENTS, AND PROGRAM MODIFICATIONS

This section of the SSMP discusses parameters the Town tracks to monitor the success of the SSMP and how the Town 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, where appropriate, measure the effectiveness of each element of the SSMP;
- Assess the success of the preventative maintenance program;

- Update program elements, as appropriate, based on monitoring or performance evaluations; and
- Identify and illustrate spill trends, including: frequency, location, and volume.

9.2 Monitoring Information

The Town 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 spill order. All CIWQS information is available through the Public Reports portal at:

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

9.3 Performance Measures

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

- Total number of spills and Category,
- Volume of spilled wastewater recovered (gallons/year) compared to total volume of wastewater spilled (gallons/year),
- Volume of spilled wastewater discharged to surface waters (gallons/year) compared to total volume of wastewater spilled (gallons/year),
- Footage of collection system inspected, including separate evaluation of priority areas,
- Footage of collection system cleaned, including separate evaluation of priority areas,
- Completion of yearly-updated Collection System Management Goals, and
- Number of non-residential users inspected.

These parameters were selected because they are straightforward, quantitative, and focused on results. Performance measures are evaluated annually, at minimum, and are used to evaluate the effectiveness of our program and SSMP.

Current Collection System Management Goals are:

- Continually update GIS of the sanitary sewer collection system,
- Produce GIS-based map book for collection system,
- Complete implementation of collection system CMMS, and
- Continue Full Condition Assessment of Collection System every 10 years by CCTV.

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 Town will

annually evaluate the performance of the wastewater collection system using the performance measures listed in Section 9.3. The Town will review the successes and needed improvements of the SSMP as part of the SSMP bi-annual audit, described in Element 10.

Town staff will update critical information, such as contact numbers and the spill response chain of communication, as needed. A comprehensive SSMP update will occur every 6 years, as required by the SWRCB. An SSMP Update Log for tracking these updates and program changes is contained in Appendix D.

10.0 ELEMENT - INTERNAL AUDITS

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

10.1 Regulatory Requirements for SSMP Audits

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

- The Town shall conduct periodic internal audits appropriate to the size of the system and the number of spills. 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 Town'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 Town will audit its SSMP on a three-year cycle. The audit will determine whether the SSMP meets the current requirements of the WDR, whether the SSMP reflects the Town's current practices, and whether the Town is following the SSMP.

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

The scope of the audit will cover each of the sections of the SSMP. The Audit Checklist, based on the requirements in the WDR, will be used for the audit and is included in Appendix E.

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 Audit Report should also include contact numbers, titles and other necessary administrative changes.

The Town will update its SSMP at least every six years as described in Element 1, Table 1-1

The Town will determine the need to update its SSMP more frequently based on the results of the internal audit and the performance of its sanitary sewer system using information from the Monitoring and Measuring Program. In the event that the Town decides that an update is warranted, the process to complete the update will be identified at that time.

The Town Staff will seek approval from the Town 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/Town Engineer.

11.0 ELEMENT - COMMUNICATION PROGRAM

The intent of this section of the SSMP is to identify a plan to communicate information regarding the Town'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 Town on the SSMP.

11.1 Regulatory Requirements for Communication Plan Element

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

- The Town 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 Town as the program is developed and implemented.
- The Town shall create a plan of communication with systems that are tributary and/or satellite to the Town's sanitary sewer system.

11.2 Communication Plan

The Town of Windsor's current SSMP is available for public review at the following web address: www.townofwindsor.com. As the SSMP is updated, the updated version of the SSMP and supporting documents will be available at this location.

An opportunity for formal public input was provided prior to approval of the 2025 SSMP Update by the Windsor Town Council during a publicly noticed meeting on July 16, 2025. The resolution of the Windsor Town Council and Windsor Water District Board approving the 2025 SSMP Update are included in Appendix F.

The Town is not responsible for any SSMP related to any tributary or satellite systems; therefore, communication with satellite systems would not be required as part of the communication plan.