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<th>Description</th>
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</tr>
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<td>C</td>
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</tr>
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<td>D</td>
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</tr>
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</tr>
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<td>G</td>
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<td>Element 8 Documents&lt;br&gt;Sewage Spill Response Action Plan Vol. III, October 2010, Sections Pertaining to Capacity Assurance</td>
</tr>
<tr>
<td>H</td>
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</tr>
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<td>I</td>
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<td>Element 10 Documents&lt;br&gt;Audit Template&lt;br&gt;SSMP Change Log&lt;br&gt;Placeholder for Future Audits</td>
</tr>
<tr>
<td>J</td>
<td>11</td>
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</tr>
</tbody>
</table>
# LIST OF ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BACWA</td>
<td>Bay Area Clean Water Agencies</td>
</tr>
<tr>
<td>BMP</td>
<td>Best Management Practice</td>
</tr>
<tr>
<td>CCTV</td>
<td>Closed-Circuit Television</td>
</tr>
<tr>
<td>CFR</td>
<td>Code of Federal Regulations</td>
</tr>
<tr>
<td>CIP</td>
<td>Capital Improvement Project</td>
</tr>
<tr>
<td>CIWQS</td>
<td>California Integrated Water Quality System</td>
</tr>
<tr>
<td>CMMS</td>
<td>Computerized Maintenance Management System</td>
</tr>
<tr>
<td>CDFW</td>
<td>California Department of Fish and Wildlife</td>
</tr>
<tr>
<td>EHS</td>
<td>Environmental Health Services</td>
</tr>
<tr>
<td>FOG</td>
<td>Fats, Oils and Grease</td>
</tr>
<tr>
<td>FSE</td>
<td>Food Service Establishment</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographical Information System</td>
</tr>
<tr>
<td>I/I</td>
<td>Inflow &amp; Infiltration</td>
</tr>
<tr>
<td>LRO</td>
<td>Legally Responsible Official</td>
</tr>
<tr>
<td>MRP</td>
<td>Monitoring and Reporting Program</td>
</tr>
<tr>
<td>NASSCO</td>
<td>National Association of Sewer System Companies</td>
</tr>
<tr>
<td>NPDES</td>
<td>National Pollution Discharge Elimination System</td>
</tr>
<tr>
<td>OERP</td>
<td>Overflow Emergency Response Plan</td>
</tr>
<tr>
<td>OES</td>
<td>California Office of Emergency Services</td>
</tr>
<tr>
<td>PACP</td>
<td>Pipeline Assessment and Certification Program</td>
</tr>
<tr>
<td>RWQCB</td>
<td>Regional Water Quality Control Board</td>
</tr>
<tr>
<td>SASM</td>
<td>Sewerage Agency of Southern Marin</td>
</tr>
<tr>
<td>SMCSD</td>
<td>Sausalito-Marin City Sanitary District</td>
</tr>
<tr>
<td>SSMP</td>
<td>Sewer System Management Plan</td>
</tr>
<tr>
<td>SSO</td>
<td>Sanitary Sewer Overflow</td>
</tr>
<tr>
<td>SWRCB</td>
<td>State Water Resources Control Board</td>
</tr>
<tr>
<td>WDR</td>
<td>General Waste Discharge Requirements</td>
</tr>
</tbody>
</table>
LIST OF TERMS

Blockage – An object that partially or fully hinders flow through a sewer pipeline. The blockage can be caused by debris in the sewer, grease buildup, root intrusion, or a partial or full collapse of the pipeline. Also known as a stoppage.

California Integrated Water Quality System (CIWQS) – A computer system used by the State and Regional Water Quality Control Boards to track information about SSOs, among other information. CIWQS is the tool used for online submittal of SSO details, which are then made available to the public. Website: http://www.swrcb.ca.gov/ciwqs/

California Water Environment Association (CWEA) – The statewide association of wastewater professionals that trains and certifies wastewater professionals, disseminates technical information and promotes policies to protect and enhance the environment. Website: http://www.cwea.org

Enrollee – The legal public entity that owns a sanitary sewer system, as defined by the Statewide WDR. Also known as a sewer system agency or wastewater collection system agency.

FOG Control Program – Program implemented at the discretion of the agency, based on the identified causes of sewer overflows, to reduce the discharge of fats, oils and grease into the sewer system.

Geographical Information System (GIS) – A database linked with mapping that records sewer system information. The GIS database could include sewer features such as pipe location, diameter, material, condition, or last date cleaned or repaired. GIS maps also typically contain base information such as streets and parcels.

Governing Board – Mill Valley City Council.

Infiltration – The seepage of groundwater into a sewer system, including service connections. Seepage frequently occurs through defective or cracked pipes, pipe joints, connections or manhole walls and joints.

Inflow – Water discharged into a sewer system from such sources as roof leaders, cellars, yard and area drains, foundation drains, through holes in manhole covers, cross connections from the storm system or street wash waters. Inflow differs from infiltration in that it is a direct discharge into the sewer rather than a leak through defects in the sewer.

Lateral or Private Lateral – The privately-owned sewer pipeline that conveys wastewater from the premises of a user to the City’s sewer system. The upper lateral extends from the building to
property line (or easement line). The lower lateral extends from the property or easement line to the connection to the pipe.

**Monitoring and Reporting Program** - The program used by the City to monitor, maintain records, report issues and complete needed public notifications.

**Overflow Emergency Response Plan** – This document identifies measures that are needed to respond to sanitary sewer overflows in a way that maximizes the protection of public health and the environment.

**Preventive Maintenance (PM)** – Regularly scheduled servicing of machinery, infrastructure or other equipment using appropriate tools, tests, and lubricants.

**Rehabilitation and Replacement Plan (also referred to as a Capital Improvement Plan)** – Identifies and prioritizes system deficiencies and implements short-term and long-term rehabilitation actions to address each deficiency.

**Sanitary Sewer Overflow (SSO)** – Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system, including overflows or releases that reach waters of the United States, overflows or releases that do not reach water of the United States, and backups into buildings and/or private property caused by conditions within the publicly owned portion of the sewer system.

**Sanitary Sewer System** – Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect and convey wastewater to the wastewater treatment plant.

**Satellite Collection System** – The portion, if any, of a sanitary sewer system that is owned or operated by a different public agency or user.

**Sewer System Management Plan** – A series of written programs that address how a collection system owner/operator conducts daily business. Each SSMP is unique for an individual discharger. The plan includes provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit.

**State Water Resources Control Board** – Also called the State Board. This agency developed and passed the Statewide Waste Discharge Requirements for collection systems and maintains the SSO reporting web site.
System Evaluation and Capacity Assurance Plan – A required component of an agency’s SSMP that provides hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event.

Statewide Waste Discharge Requirements – The Statewide General Waste Discharge Requirements for Sanitary Sewer Systems was adopted by the SWCRB in 2006 to provide a structure and guidance for SSMP development. Also known as Order No. 2006-0003-DWQ.

Wastewater Collection System – See Sanitary Sewer System.
EXECUTIVE SUMMARY

This Sewer System Management Plan (SSMP) has been prepared in compliance with requirements of State Water Resources Control Board (SWRCB) Order No. 2006-0003-DWQ, amended by Order No. 2013-0058-EXEC.

The City’s Waste Discharge ID Number (WDID) for the California Integrated Water Quality System (CIWQS) is 2SSO10154.

ES-1  Background

On May 2, 2006, the State Water Resources Control Board (SWRCB) issued a directive through Order No. 2006-0003-DWQ to require all public wastewater collection system agencies in California with greater than one mile of sewers to be regulated under General Waste Discharge Requirements (Statewide WDR). The SWRCB action also mandates the development of an SSMP and the reporting of SSOs using an electronic reporting system. The SWRCB amended the Statewide WDR Monitoring and Reporting Requirements through Order No. 2013-0058-EXEC, which became effective on September 9, 2013. The intent of this SSMP is to meet the requirements of the Statewide WDR.

ES-2  City of Mill Valley Service Area

The City is located approximately 14 miles north of San Francisco, west of Richardson Bay in southern Marin County. The City is approximately 4.7 square miles in area, with approximately 14,295 residents, as listed by the U.S. Census. The City’s sanitary sewer collection system service approximately 7,140 equivalent dwelling units (EDUs) through 59 miles of sewer pipes, two pumping stations and less than one mile of forcemain. Wastewater is conveyed to the Sewerage Agency of Southern Marin (SASM) wastewater treatment plant for treatment and discharge through a deepwater discharge to the San Francisco Bay.

Figure ES-1 shows the City boundary, which also comprises the City’s wastewater service area.
ES-3  SSMP Objectives

The objectives of the SSMP are to accomplish the following:

1. Establish goals that align the City’s sewer collection system operation, management and capacity assurance activities in a manner that achieves the intended purpose of this SSMP.

2. Comply with the Statewide WDR through provision of the following:
   - Elements I through XI, following the outline of the Statewide WDR, including a description of the regulatory requirements and a summary of existing and planned documents and plans related to each element.
   - Appendices that are amended over time to reflect changes in contact personnel, job descriptions, policies, procedures and programs.

Table ES-1, shown on the following page, identifies the objectives that must be addressed to comply with each SSMP element.
## Table ES-1. SSMP Objectives

<table>
<thead>
<tr>
<th>Element</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Goals</td>
<td>• Properly manage, operate and maintain the collection system</td>
</tr>
<tr>
<td></td>
<td>• Provide capacity to convey base and peak flows</td>
</tr>
<tr>
<td></td>
<td>• Minimize the frequency and severity of SSOs</td>
</tr>
<tr>
<td></td>
<td>• Mitigate the impact of SSOs</td>
</tr>
<tr>
<td>II. Organization</td>
<td>• Identify agency staff responsible for the SSMP</td>
</tr>
<tr>
<td></td>
<td>• Identify chain of communication for responding to and reporting SSOs</td>
</tr>
<tr>
<td>III. Legal Authority</td>
<td>• Control I/I from the collection system and laterals</td>
</tr>
<tr>
<td></td>
<td>• Require proper design and construction of sewers and connections</td>
</tr>
<tr>
<td></td>
<td>• Require proper sewer installation, testing and inspection</td>
</tr>
<tr>
<td></td>
<td>• Ability to impose source control requirements</td>
</tr>
<tr>
<td>IV. Operation and Maintenance Program</td>
<td>• Maintain up-to-date maps</td>
</tr>
<tr>
<td></td>
<td>• Allocate adequate resources for system operation and maintenance</td>
</tr>
<tr>
<td></td>
<td>• Prioritize preventative maintenance activities</td>
</tr>
<tr>
<td></td>
<td>• Identify critical equipment and spare parts to minimize equipment and/or facility downtime</td>
</tr>
<tr>
<td></td>
<td>• Provide staff training on a regular basis</td>
</tr>
<tr>
<td>V. Design &amp; Construction Standards</td>
<td>• Identify minimum design and construction standards and specifications</td>
</tr>
<tr>
<td>VI. Overflow Emergency Response Plan (OERP)</td>
<td>• Identify procedures and standards for inspecting and testing</td>
</tr>
<tr>
<td></td>
<td>• Provide SSO notification procedures</td>
</tr>
<tr>
<td></td>
<td>• Develop and implement a plan to respond to SSOs</td>
</tr>
<tr>
<td></td>
<td>• Develop procedures to report and notify SSOs</td>
</tr>
<tr>
<td></td>
<td>• Develop procedures to prevent overflows from reaching surface waters, and to minimize or correct any adverse impact from SSOs</td>
</tr>
<tr>
<td>VII. FOG Control Program</td>
<td>• Develop a Fats, Oil and Grease (FOG) control plan, if needed</td>
</tr>
<tr>
<td>VIII. System Evaluation and Capacity Assurance</td>
<td>• Establish a process to access the current and future capacity requirements</td>
</tr>
<tr>
<td>IX. Monitoring, Measurement and Program Modifications</td>
<td>• Implement a capital improvement plan to provide hydraulic capacity</td>
</tr>
<tr>
<td>X. SSMP Audits</td>
<td>• Conduct a bi-annual audit that includes deficiencies and steps to correct them</td>
</tr>
<tr>
<td>XI. Communication Program</td>
<td>• Communicate with public (Customers) on SSMP development, implementation and performance and create a plan for communication with tributary/satellite sewer systems</td>
</tr>
</tbody>
</table>
ELEMENT 1 - GOALS

The purpose of this section is to identify the goals that the City has established for its SSMP. These goals are intended to define a program that promotes continuous improvement in the City’s existing wastewater collection system management and maintenance processes.

1.1 SWRCB SSMP Requirements

Requirements for the Goals element of the SSMP are described in the SWRCB Statewide WDR as follows:

The City must provide a plan and schedule to properly manage, operate, and maintain all parts of its wastewater collection system in order to reduce and prevent SSOs, as well as to mitigate any SSOs that occur.

1.2 City of Mill Valley Goals

The goals of the City’s SSMP are to accomplish the following:

- To properly manage, operate, and maintain all parts of the wastewater collection system, so as to preserve and protect the public’s investment in that system
- To provide adequate capacity to convey peak flows to the SASM wastewater treatment plant
- To minimize the frequency and duration of SSOs, including implementing regular, proactive maintenance of the system to remove issues that may cause sewer backups or SSOs
- To mitigate the impact of SSOs on public health and the environment
- To respond quickly and respectfully to public notifications of SSOs or other collection system problems
- To collect complete and accurate information regarding SSOs for reporting to the appropriate regulatory agencies
- To uphold the City’s standards and specifications on newly constructed public and private sewers
- To provide a safe working environment for City employees
- To provide City employees with the tools and training needed to perform their work effectively and achieve the City’s goals
ELEMENT 2 - ORGANIZATION

The purpose of this section is to identify City staff 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 Statewide WDR requirements for completing and certifying spill reports.

2.1 SWRCB SSMP Requirements

The requirements for the Organization element of the SSMP are described in the SWRCB Statewide WDR as follows:

The City’s SSMP must identify:

- 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
- The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (OES))

2.2 Organization Chart and SSMP Responsibilities

The SSMP responsibility organization chart is shown in Figure 2-1. Roles and responsibilities of key personnel involved in the wastewater collection system are as follows:

City Manager. Establishes policies and strategic plans for City projects. Serves as the liaison to the City Council, other agencies and the general public.

Director of Public Works. Manages Public Works department. Allocates resources for City projects. Provides oversight of development and implementation of the SSMP. Reports to City Manager.

City Engineer. Manages Engineering department. Develops budgets for engineering projects. Manages development and implementation of the SSMP. Reports to Director of Public Works.
**Streets and Sewers Supervisor.** Manages collection field operations and maintenance activities. Provides summary reports to the City management, coordinates City response to collection system emergencies or problem, coordinates investigations and follow-up of blockages and SSOs, and trains field crew. The Streets and Sewers Supervisor is the designated LRO.

**Senior Civil Engineer I/II/Associate Engineer.** Responsible for managing capital improvement projects. Develops plans and specifications for collection system projects, and provides construction management inspection services. Responsible for SSO compliance and reporting. Also provides oversight to the development and implementation of the SSMP.

**Operations Superintendent.** Manages operations and maintenance of the wastewater collection system as part of more comprehensive responsibility for City parks, recreation areas, buildings and facilities, street trees, streets, sidewalks, storm drains, flood control channels, and City vehicles. Assists in the construction of these facilities and is the Supervisor to the Streets and Sewers Supervisor.

**Maintenance Workers.** Conduct collection system corrective and preventive maintenance activities, including emergency response for blockages and SSOs. When directed, coordinates with vendors and outside contractors for equipment and services.

**Contract Responder.** Responds to SSOs during non-business hours and during business hours if response requirements exceed City staff capabilities.

**Engineering Technician.** Provides assistance with documentation and administrative duties.

**Sewerage Agency of Southern Marin.** Provides wastewater collection, treatment, reclamation and disposal for Mill Valley, and also the Tamalpais Community Services District, and the Almonte, Alto, Homestead Valley and Richardson Bay Sanitary Districts. Provides backup SSO response staff and equipment to the City, as well as laboratory services.
Table 2-1 on the following page summarizes the individuals who are responsible for each section of the SSMP.
**Table 2-1. SSMP Responsibilities**

<table>
<thead>
<tr>
<th>SSMP Element</th>
<th>Responsible Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Goals</td>
<td>The City Manager leads staff in the implementation of the City’s goals</td>
</tr>
<tr>
<td>II. Organization</td>
<td>The Director of Public Works /City Engineer updates the organization structure. The Streets and Sewers Supervisor manages SSMP implementation assignments, and amends SSO response and reporting chains of communication, as needed.</td>
</tr>
<tr>
<td>III. Legal Authority</td>
<td>The Director of Public Works /City Engineer upholds the City Ordinance and drafts new ordinances as needed.</td>
</tr>
<tr>
<td>IV. Operations &amp; Maintenance</td>
<td>The Director of Public Works/City Engineer manages the City’s resources and budget. The Streets and Sewers Supervisor, under direction of the Operations Superintendent, manages outreach to plumbers and building contractors; prioritized preventive maintenance; contingency equipment and replacement inventories; training; maintaining a current collection system map; and scheduled inspections and condition assessment.</td>
</tr>
<tr>
<td>V. Design and construction standards</td>
<td>The Engineering Manager, under direction of the City Engineer, reviews design and construction documents to ensure that all construction projects meet the City’s standards. The Engineering Manager also updates standards for installation, rehabilitation and repair, as needed, and oversees staff that inspect construction projects to ensure the City’s construction standards have been followed.</td>
</tr>
<tr>
<td>VI. Overflow Emergency Response Plan</td>
<td>The Streets and Sewers Supervisor implements the Overflow Emergency Response Plan, makes revisions to the plan and conducts regular training for maintenance crew members. The Public Works Director and Engineering Manager are the City’s Legally Responsible Officials for SSO Reporting.</td>
</tr>
<tr>
<td>VII. FOG Control Program</td>
<td>The Streets and Sewers Supervisor identifies grease hot spots and maintains an effective cleaning program for grease problem sewers. The Streets and Sewers Supervisor inspects grease interceptor/traps that have been installed at non-residential locations and enforces discharge regulations, as needed.</td>
</tr>
<tr>
<td>VIII. System Evaluation and Capacity Assurance</td>
<td>Engineering Manager, under direction of the City Engineer, establishes and assesses capacity requirements for the City’s collection system and manages preparation and implementation of the City’s System Evaluation and Capacity Assurance Plan. The Engineering Manager also develops and implements the City’s long-term Capital Improvement Plan including updating budgets and schedules.</td>
</tr>
<tr>
<td>IX. Monitoring, Measurement and Program Modifications</td>
<td>The Director of Public Works /City Engineer and Engineering Manager monitor implementation and assesses success of the overall SSMP program elements with the assistance of staff. The Streets and Sewers Supervisor identifies trends in SSO occurrences and provides recommendations to the Director of Public Works /City Engineer.</td>
</tr>
<tr>
<td>X. SSMP Audits</td>
<td>The Engineering Manager oversees annual SSMP audits.</td>
</tr>
<tr>
<td>XI. Communication Plan</td>
<td>The City Manager communicates with the public and nearby agencies of the City’s SSMP.</td>
</tr>
</tbody>
</table>
2.3 Chain of Communication for Reporting

Figure 2-2 shows a simplified Chain of Communication for reporting overflows. More detailed flowcharts are included in Element 6, Overflow Emergency Response Plan.

Figure 2.2. Chain of Communication
Appendix A – Element 2 Documents

Appendix A includes the following documents related to this section. The information in these documents will change from time to time, and the documents in Appendix A may have been superseded. Please contact the Director of Public Works / City Engineer for the most recent updates to the Appendix A documents.

- SSMP & First Responder Contact List
ELEMENT 3 - LEGAL AUTHORITY

This element of the SSMP discusses the City’s Legal Authority provided through the Mill Valley Municipal Code.

3.1 SWRCB SSMP Requirements

The City 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 Public Agency
- Limit the discharge of fats, oils, and grease and other debris that may cause blockages
- Enforce any violation of its sewer ordinances

3.2 Legal Authority to Enforce SSMP Requirements

The City’s legal authority as required for the SSMP is contained within the Municipal Code, Title 17, which is included in its entirety in Appendix B.

The following subparagraphs of the City Municipal Code are discussed in more detail below as they pertain to the requirements of the SWRCB.

3.2.1 Prevention of Illicit Discharges

The following sections of the City Municipal Code prevent illicit discharges to the sanitary sewer system and establish the City’s authority to enforce violations to the Code sections.

Section 17.04.290 Solid Waste Disposal. This section prohibits the disposal of any solid kitchen waste material to be thrown or deposited into any receptacle connected with a sanitary sewer unless passed through a mechanically operated grinder disposal.

Sections 17.04.310, 17.04.320, 17.04.330. These sections require the following:

- Discharge of liquid wastes from holding tanks of trailers, campers, or similar vehicles at the wastewater treatment plant
- Prohibits the discharge of a sub-drain or main sewer or house lateral for the purpose of conducting any storm water or any surface or underground drainage into the sewer
• Makes it unlawful to discharge into any sub-main or main sewer or house lateral any leader pipe from a roof, surface drain, underground drain, or any solid or liquid wastes other than the sewage composed of the ordinary liquid wastes of residences, business buildings, and institutions, discharges from baths, toilets, laundries, sinks or wash tray, floor drains and backwash from swimming pools

• Makes it unlawful to discharge into the sewers any substance, such as flammable petroleum products or similar substances, which may generate inflammmable gases

Sections 17.08.020 and 17.08.030. This section makes it unlawful to throw or place any foreign matter or material into the sewerage system of the City.

3.2.2 Proper Design and Construction of Sewers and Connections

Section 17.04.260 of the City’s Municipal Code, Title 17 requires a permit prior to construction, installation, extension or alteration of a sewer pipeline. The permit applicant must file plans and specifications for review and approval by the Director of Public Works/City Engineer. The City uses design standards that are developed and maintained by the Sausalito-Marin City Sanitary District (SMCSD). These standards are currently in review by the City and may be amended as needed to address installations that are specific to the City.

The Design Standards are discussed in further detail in Element V of this SSMP.

3.2.3 Access for Maintenance, Inspection & Repairs

Measures detailing the City’s authority to enter buildings for the purpose of protecting the public sewer system and enforcing provisions of the Municipal Code are included in Title 17, Section 17.04.390. This section enables any authorized agent of the City to go upon the premises of any persons discharging sewage into the City’s sewerage system for the purpose of checking the fixtures, establishing charges and fees, protecting the rights of the City, obtaining information deemed necessary to protect such rights, and to examine the books of the user as required for the enforcement of the provisions of Title 17 of the Municipal Code.

3.2.4 Limit Discharge of Fats, Oils & Grease and Debris

In August 2006, the City established a Fats, Oils and Grease (FOG) policy. The policy clearly states that, “Authority for this policy may be provided by provisions of Section 17.04.400 et. seq. of the City of Mill Valley Municipal Code, which allows the City Manager to make and enforce regulations to protect the sewer system.” Details of the FOG policy are included in Element VII of this SSMP.
3.2.5 Enforcement Measures

The Municipal Code Article 17, Section 17.04.360 defines penalties and fines associated with violation of the Code. Any person violating any of the provisions of Article 17 is guilty of a misdemeanor and upon conviction thereof, shall be punishable by a fine of not more than $500.00, or by imprisonment for a period of not more than six months in the county jail, or by both such fine and imprisonment.

This Section also provides the City with the power to disconnect the individual user from the City's system, and to require the user to deposit the cost of disconnection and reconnection with the City before they are reconnected.

3.3 Interagency Agreements and Satellite Systems

The City does not collect wastewater from satellite systems, and therefore does not have any agreements with satellite sewer collection agencies at this time.

Appendix B – Element 3 Documents

Appendix B includes the following documents related to this section. The information in these documents will change from time to time, and the documents in Appendix B may have been superseded. Please contact the Director of Public Works /City Engineer for the most recent updates to the Appendix B documents.

- Municipal Code Title 17 Sewers (https://qcode.us/codes/millvalley/)
ELEMENT 4 - OPERATION AND MAINTENANCE PROGRAM

This section of the SSMP discusses the City’s mapping, operations, preventive maintenance, inspection, training and outreach activities.

The requirements and the City’s plan for the Operations and Maintenance element of the SSMP are summarized in each category below. Since requirements for this SSMP element contain many categories, this summary is organized by category, with the SWRCB requirement described for each category as applicable.

The categories that are addressed in Element 4 include:

- Collection System Mapping
- Resources and Budget
- Prioritized Preventive Maintenance
- Scheduled Inspections, Condition Assessments and Replacement Planning
- Critical Equipment and Spare Parts
- Training

4.1 Collection System Mapping

4.1.1 SWRCB Requirement

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 stormwater conveyance facilities.

4.1.2 Collection System Map Description

The City currently uses a Geographic Information System (GIS), as an integral component of Lucity computerized maintenance management software, to create and maintain maps of its collection system facilities. The geodatabase includes pipe and manhole inventory information, including diameter and some material data. Maps are updated within GIS and Lucity as needed. The GIS database includes the City’s pump station and associated forcemains.

Storm Drain Information

Storm drain information is available through the County of Marin. The storm drain maps are used when possible to help to determine the potential routing of SSOs.
4.2 Resources and Budget

4.2.1 SWRCB Requirement

The Statewide WDR requires identification of resources and budget for sewer system management.

4.2.2 City's Resources and Budget for Sewer System Management

The City prepares a two-year budget, and amends this budget on a regular basis. Specific to the sewer collection system, the budget funds the implementation of the annual Sewer Rehabilitation Program and Sewer System Overflow reporting.

The portions of the City’s adopted budget related to sewer system management are included in Appendix C. In Fiscal Year 2017/18, the City allocated funding of approximately $1.3 million for sewer maintenance and management, and $3.5 million for the City’s share of wastewater treatment costs.

4.3 Prioritized Preventative Maintenance

4.3.1 SWRCB Requirement

The City must describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventive Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders.

4.3.2 Prioritized Preventive Maintenance Activities

The City of Mill Valley cleans the gravity sewer mains on a three-year cycle. Pipes with recurring maintenance issues are defined as potential “hot spots.” The City currently maintains 22 hot spots with a history of blockage issues primarily related to roots. Some joints with known roots also have offsets. One hot spot location has a known sag and grease accumulation and is cleaned monthly. The other hot spot locations are cleaned every 12 months. The City’s hot spot list is adjusted based on recent field information. Therefore, the Streets and Sewers Supervisor should be contacted for the most recent hot spot list.

Sewers in easements are maintained using either hydroflushing or machine rodding where feasible. Pipes that cannot be cleaned using hydroflush or truck-mounted machine rodding equipment are cleaned using a smaller portable rodding machine.
Roots are addressed using a combination of hydroflushing or truck-mounted machine rodding. When access to the pipe using this equipment is not feasible, rodding is performed using a smaller portable rodding machine.

The City uses GIS for mapping, and Lucity CMMS to store maintenance data and plan routine maintenance.

4.4 Scheduled Inspections, Condition Assessment and Rehabilitation Plan

4.4.1 SWRCB Requirement

The City 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.

4.4.2 CCTV Inspection Program

The City collects CCTV inspection data using contract CCTV contractors. CCTV data is collected in digital format with fully equipped CCTV vehicles, using pan-and-tilt cameras or, alternatively, using push cameras where large camera access is not possible.

The City’s inspection program uses the National Association of Sewer Service Companies (NASSCO) Pipeline Assessment and Certification Program (PACP) defect rating systems. In addition to evaluating each defect, the program assigns a PACP “Quick Rating” for each pipe segment. The quick rating indicates the number of occurrences for the two highest severity grades for each pipe segment for either maintenance or structural defects.

The City completed CCTV inspection of nearly all of the sewer system in 2013. The City uses this information to prioritize pipeline replacements by segregating pipes with NASSCO PACP Structural Grade 5 and 4 defects.

4.5 Training

4.5.1 SWRCB Requirement
The City must provide training on a regular basis for staff in sanitary sewer system operations, maintenance, and require contractors to be appropriately trained.

4.5.2 Training of City Personnel and Contractors

All City staff and contractor employees that have a role in responding to, reporting and/or mitigating a sewer system overflow receives training on the contents of the SSMP, the City’s Sewage Spill Overflow Response Plan that is discussed in Element 6, and other job-related training. New employees receive this training before they are placed in a position where they may have to respond to SSOs, as well as refresher training in conjunction with SASM.

Records are kept of all training that is provided in support of the SSMP. The records include the date, time, place, content, name of trainer(s) and names of attendees.

As an example of regular training completed by City staff, in 2018, the following training was provided to employees. For more recent training summaries, please contact the Streets and Sewer Supervisor:

- October 17, 2018 Sewer Summit: Jill McNeal, Denise Andrews, Mark Kenyon, Sam Maldonado
- Root Control Training
- Storm Preparation – Preparing for a Rain Event
- Vactor Operators & Mechanics Training
- Blood-Borne Pathogens
- Chainsaw Safety
- Chemical Safety
- Contractor Safety Orientation (construction-specific)
- Driving in Extreme Weather Conditions; Proper Lifting
- Evacuation Route & Fire Extinguisher Location Training
- Facilities Management
- Ladder Safety
- Material Handling and Preventing Back Injury
- Personal Protective Equipment
- PG&E Wildfire Safety Program
- Poison Oak – PPE & Prevention
- Preventing Heat Related Illness
- Safely working near backhoes & loaders
- Safe Transport of Equip & Materials on Trucks/Trailers
• So. Marin Management Academy
• SSMP Refresher Training (SASM)
• Stormwater BMPs
• Traffic Control Training and Certification
• Using Hand-Held Tools Safely
• Vehicle Mechanic Training
• Workplace Ethics
• Working Safely near roadways

4.6 Contingency Equipment and Replacement Inventories

4.6.1 SWRCB Requirement

The City must provide equipment and replacement part inventories, including identification of critical replacement parts.

4.6.2 Contingency Equipment and Replacement Inventories

The City’s emergency response equipment and spare parts inventory are managed by the Operations Superintendent and includes the items shown in Table 4-1. The numbers shown represent the typical number of items that are currently on hand.
Table 4.1 – Emergency Response and Spare Parts Inventory

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flusher</td>
<td>1</td>
</tr>
<tr>
<td>Vactor</td>
<td>1</td>
</tr>
<tr>
<td>Rodder</td>
<td>1</td>
</tr>
<tr>
<td>Push Camera CCTV (on sewer utility truck)</td>
<td>2</td>
</tr>
<tr>
<td>Utility Trucks</td>
<td>1</td>
</tr>
<tr>
<td>Emergency SSO Trailer</td>
<td>1</td>
</tr>
<tr>
<td>Emergency Bypass Pumps</td>
<td>2</td>
</tr>
<tr>
<td>Portable Backup Generator</td>
<td>4</td>
</tr>
<tr>
<td>Stormdrain Protection Equipment (Sand Bags, Absorbent Socks, Pads,</td>
<td>Yes</td>
</tr>
<tr>
<td>Granulated “Grease Sweep”)</td>
<td></td>
</tr>
<tr>
<td>Mechanical Shoring braces</td>
<td>4</td>
</tr>
<tr>
<td>Tow behind air compressor</td>
<td>1</td>
</tr>
<tr>
<td>Line locator</td>
<td>2</td>
</tr>
<tr>
<td>Cut-off saw</td>
<td>2</td>
</tr>
<tr>
<td>Trench Plates</td>
<td>2</td>
</tr>
<tr>
<td>Confined Space Entry equipment</td>
<td>1</td>
</tr>
<tr>
<td>Traffic cones</td>
<td>50</td>
</tr>
<tr>
<td>Vehicle traffic early warning signs</td>
<td>4</td>
</tr>
<tr>
<td>Sewer line plugs (4” - 18”)</td>
<td>10</td>
</tr>
<tr>
<td>Sewer bypass hose</td>
<td>300 ft.</td>
</tr>
<tr>
<td>Pipe couplers (4”, 6”, 8”)</td>
<td>12</td>
</tr>
<tr>
<td>Pipe SDR35 (4”, 6”, 8”)</td>
<td>20’ ea.</td>
</tr>
<tr>
<td>Pipe c900 (6”)</td>
<td>20’</td>
</tr>
</tbody>
</table>
Appendix C – Operation and Maintenance Program Documents

Appendix C includes the following documents related to this section. The information in these documents will change from time to time, and the documents in Appendix C may have been superseded. Please contact the Director of Public Works /City Engineer for the most recent updates to the Appendix C documents.

- Two-Year Budget (Sewer-Related Sections)
ELEMENT 5 - DESIGN AND PERFORMANCE PROVISIONS

This section of the SSMP discusses the City’s design and construction standards. This section fulfills the Design and Performance Provisions SSMP requirement for the SWRCB (Element 5).

5.1 SWRCB SSMP Requirements

Requirements for the City’s design and construction standards element of the SSMP are described in the SWRCB Statewide WDR as follows:

The City must have design and construction standards and specifications for the installation of new sewer systems, pump stations and other appurtenances, and for the rehabilitation and repair of existing sewer systems.

5.2 Standards for Installation, Rehabilitation and Repair

The City follows the Standard Specifications for Sausalito-Marin City Sanitary District (SMCSD) for the design and installation of sanitary sewer collection and conveyance facilities. The Table of Contents for this document is included in Appendix D.

The Standard Specifications provide detailed requirements for the installation of new sewer systems and for the rehabilitation and repair of existing sewer systems. The Specifications also address pump stations by noting that individual pump station needs vary and must be addressed through facility-specific preliminary designs.

5.3 Procedures and Standards for Inspection, Testing, Rehabilitation and Repair

Design and Construction

Criteria for the design of new sewer lines and manholes are detailed in Part B, Section 4 of the SMCSD Standards. Criteria include design flows, pipe materials, minimum pipe sizes and slopes, pipe depths and clearance with other utilities, and required fittings. Part B, Section 4 of the SMCSD Standards also includes design requirements for private laterals including minimum slopes and cleanouts. Detailed technical requirements for pipe materials and appurtenances are included in Part D, Section 14 of the Standards.

Criteria for the construction of new sewer lines and force mains are detailed in Part D, Section 14 of the SMCSD Standards. This information includes trench widths, pipe jointing, connections to existing systems, and trenchless installations.
Criteria for testing and inspecting of new and rehabilitated sewers and force mains are detailed in Part D, Section 14 of the SMCSD Standards. This section describes water tests, air tests, infiltration tests, deflection tests, cleaning and television inspection.

**Project Approval**

Requirements for the preparation, submittal, and approval of plans and specifications are described in Part B, Section 5 of the SMCSD Standards. All new construction plans are required to be prepared by a registered civil engineer and submitted to City staff for review and approval.

The City uses its own staff and contract forces to monitor the construction of CIP projects and customer service installations to ensure compliance with the specifications.

All City and private projects must be tested according to the requirements outlined in the specifications prior to consideration for City acceptance for maintenance. In addition, record drawings of all final project elements must be submitted and approved by City staff prior to final acceptance of any project on City infrastructure.

**Appendix D – Design and Performance Provisions Documents**

Appendix D includes the SMCSD Design Standards. The information in this document will change from time to time, and the document in Appendix D may have been superseded. Please contact the Director of Public Works /City Engineer for the most recent updates to the SMCSD Design Standards.

- Table of Contents for the SMCSD Standard Specifications (accepted by City as the City’s Design Standards)
ELEMENT 6 – OVERFLOW EMERGENCY RESPONSE PLAN

This section of the SSMP provides a summary of the City’s Overflow Emergency Response Plan, which is included as a standalone document in Appendix E. The purpose of the Overflow Emergency Response Plan (OERP) is to support an orderly and effective response to Sanitary Sewer Overflows (SSOs). The OERP provides guidelines for City staff to follow in responding to, cleaning up, and reporting SSOs that may occur within the City’s service area.

6.1 SWRCB SSMP Requirements

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

The City shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:

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

The responsibilities of the SSO Response Team depend on the volume and location of an incident. Three categories of SSOs are defined by the SWRCB:

- Category 1 SSO: Discharges of untreated or partially treated wastewater of any volume resulting from an enrollee’s sanitary sewer system failure or flow condition that:
  - Reach surface water and/or reach a drainage channel tributary to a surface water; or
  - Reach a municipal separate storm sewer system and are not fully captured and returned to the sanitary sewer system or not otherwise captured and disposed of properly. Any volume of wastewater not recovered from the municipal separate storm sewer system is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or ground water infiltration basin (e.g., infiltration pit, percolation pond).

- Category 2 SSO: Discharges of untreated or partially treated wastewater of 1,000 gallons or greater resulting from an enrollee’s sanitary sewer system failure or flow condition that do not reach surface water, a drainage channel, or a municipal separate storm sewer system unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.

- Category 3 SSO: All other discharges of untreated or partially treated wastewater resulting from an enrollee’s sanitary sewer system failure or flow condition.

6.3 Notification Procedures

The City is most often notified by the public of an SSO. The public contacts the City through the main telephone number, which is (415) 388-4033. The main telephone number is included in the phone book and on the City’s website, which can be accessed through the url: www.cityofmillvalley.org.

Chapter 3 of the OERP provides additional information on how reports are received during normal working hours and non-working hours, and also on how notifications are received from pump station alarms. Chapter 3 of the OERP provides a table showing the different notification and response requirements associated with each category of SSO. Appendix OERP-A of the OERP lists the City’s SSMP contact names and numbers.

Relevant figures and tables from the OERP are included as Figures 6-1 and 6-2, and Table 6-1 on the following pages.
Figure 6.1 SSO Notification Process During Business Hours

1. SSO Identifier Notifies City or Police Department
2. Streets & Sewers Supervisor Notified
3. In Service Area?
   - Yes: City-Owned Sewer?
     - Yes: Category 2 or 3
       - Yes: Designated Maintenance Staff Responds
         - Yes: Maintenance Staff Relays Information to Ops Superintendent and Eng’s Manager
         - Yes: Public Works Aide Enters SSO into CIWQS
         - Yes: Eng’s Manager Certifies SSO in CIWQS (30 days after end of month in which SSO occurred)
       - No: Designated Maintenance Worker Responds
         - Yes: Streets & Sewers Supervisor Contacts PW Director and Operations Superintendent
           - Yes: Ops Superintendent Makes 2-Hour Notification if ≥1,000 gallons. Streets and Sewers Supervisor Enters SSO into CIWQS
           - Yes: Engineering Manager Makes All Follow-Up CIWQS Reports (3 Day, 15 Day)
         - Yes: Public Works Director Notifies City Manager
Figure 6.2. SSO Notification Process During Non-Business Hours

- SSO Identifier Notifies City or Police Department
- Contract Responder (Roto Rooter) Notified
- In Service Area?
  - Yes
    - City-Owned Sewer?
      - Yes
        - Contract Operator Responds and Contacts Streets and Sewers Supervisor
      - No
        - Category 2 or 3
          - Streets and Sewers Supervisor Enters SSO Into CIWQS
    - No
      - Contract Responder Contacts SSO Identifier & Appropriate Jurisdiction

- Contract Responder Clears Blockage and Bills Homeowner

- Cat 1 or 2?
  - Yes
    - Contract Operator Responds & Contacts Streets & Sewers Supervisor
  - No
    - Category 1
      - Streets & Sewers Supervisor Contacts PW Director and Operations Superintendent
      - > 1,000 gals?
        - Yes
          - Streets & Sewers Supervisor Makes 2-hour Notification to OES and enters SSO Into CIWQS
        - No
          - Engineering Manager Makes All Follow-Up CIWQS Reports (3 Day, 15 Day)
      - No
        - Public Works Director Notifies City Manager
### Table 6.1 Notification Timelines and Contact Information

<table>
<thead>
<tr>
<th>Element</th>
<th>Requirement</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NOTIFICATION</strong></td>
<td>Within two hours of becoming aware of any 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 City will notify the California Office of Emergency Services (OES) and obtain a notification control number.</td>
<td>Call Cal OES at (800) 852-7550 and Marin County Environmental Health Services (EHS) (415) 473-6907 are also to be contacted. During evenings/weekends, call the Sheriff Communication Center at (415) 479-2311.</td>
</tr>
</tbody>
</table>
| **REPORTING**          | • Category 1 SSO: The City will submit draft report within three business days of becoming aware of the SSO and certify within 15 calendar days of the SSO end date.  
• Category 2 SSO: The City will submit draft report within 3 business days of becoming aware of the SSO and certify within 15 calendar days of the SSO end date.  
• Category 3 SSO: The City will submit certified report within 30 calendar days of the end of month in which SSO the occurred.  
• "No Spill" Certification: The City will certify that no SSOs occurred within 30 calendar days of the end of the month or, if reporting quarterly, the quarter in which no SSOs occurred.  
• Collection System Questionnaire: The City will update and certify every 12 months | • Enter data into the CIWQS Online SSO Database (http://ciwqs.waterboards.ca.gov/), certified by the Legally Responsible Official(s).  
• All information required by CIWQS will be captured in the Sanitary Sewer Overflow Report.  
• Certified SSO reports may be updated by amending the report or adding an attachment to the SSO report within 120 calendar days after the SSO end date. After 120 days, the State SSO Program Manager must be contacted to request to amend an SSO report along with a justification for why the additional information was not available prior to the end of the 120 days. |
| **WATER QUALITY MONITORING** | The City will conduct water quality sampling within 48 hours after initial SSO notification for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters. EHS requires daily water quality sampling until compliance is achieved, if there is a Category I discharge of 1,000 gallons or greater and spills into surface water. | Water quality results will be uploaded into CIWQS for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters. |
| **RECORD KEEPING**     | The City will maintain the following records:  
• SSO event records.  
• Records documenting Sanitary Sewer Management Plan (SSMP) implementation and changes/updates to the SSMP.  
• Records to document Water Quality Monitoring for SSOs of 50,000 gallons or greater spilled to surface waters.  
• Collection system telemetry records if relied upon to document and/or estimate SSO Volume. | Self-maintained records shall be available during inspections or upon request. |
6.4 SSO Response Program

During business hours, maintenance staff is the First Responder and completes the first section of the Sanitary Sewer Overflow Field Report Form (Field Report) found in the OERP. During non-business hours, response is handled through a contract responder (Roto-Rooter).

The following positions are responsible for responding to SSOs:

- First Responder to SSOs: City Maintenance Staff led by the Streets and Sewers Supervisor (during normal working hours) or Roto-Rooter (after normal working hours)
- First Responder to Pump Station Failures: SASM Crews
- Claims Processing: Director of Public Works, Operations Superintendent, City Manager

6.4.1 First Responder Priorities

The first responder’s priorities are as follows:

- To follow safe work practices, including those related to traffic control, confined space, and employee and public safety
- To respond promptly with the appropriate equipment
- To evaluate the cause of spill and determine responsibility
- To restore the flow as soon as possible
- To contain the spill whenever feasible
- To minimize public access to and/or contact with the spilled sewage

6.4.2 Initial Response

The First Responder should report to the location within 60 minutes of the initial SSO report with the objective of minimizing and/or eliminating an overflow. The appropriate response measure will vary based on the circumstances and nature of the SSO and the information provided by the caller. The OERP describes tasks that should be completed in response to external and internal SSOs, and for pump station SSOs. The OERP also lists available equipment for SSO response.

Figure 6-3 on the following page summarizes SSO response tasks.

The City uses the SWRCB SSO reporting forms to internally document the contact and response for each SSO that occurs. This form, labeled the SSO Field Report Form, is included in Appendix OERP-B of the OERP.
Figure 6.3 SSO Response Flowchart Taken from OERP. For All References, See OERP Chapters and Figures.
The First Responder provides the completed SSO response form to the Streets and Sewers Supervisor for input into the SSO database. The City’s SSMP contact information is included in Appendix OERP-A of the OERP.

6.4.3 Containment or Bypass

The first responder should attempt to contain as much of the spilled sewage as possible using the following steps:

- Determine the immediate destination of the overflowing sewage
- Plug storm drains using available equipment and materials to contain the spill, where feasible. If spilled sewage has made contact with the storm drainage system, attempt to contain the spilled sewage by plugging downstream storm drainage facilities.
- Contain/direct the spilled sewage using dike/dam or sandbags
- Pump around the blockage/pipe failure/pump station or vacuum flow from upstream of the blockage and dispose of downstream of the blockage to prevent further overflow
- If an SSO reaches a water body, follow the requirements below for posting and SSO notification signage. Also conduct water quality sampling as discussed above.

6.4.4 Volume Estimation and Sewage Recovery

The recovery and cleanup phase begins immediately after the flow has been restored and the SSO has been contained to the extent possible. The SSO recovery and cleanup procedures include volume estimation and sewage recovery, as discussed below, as well as cleanup and disinfection as discussed under Follow-Up Activities.

Use the methods outlined in Appendix OERP-B to estimate the volume of the spilled sewage. Wherever possible, document the estimate using photos of the SSO site before and during the recovery operation.

Utilize at least two, and preferably three different methods to estimate SSO volume. Judgment shall be applied and documented to select a final volume based on the results of the different estimation methods.

Spilled sewage shall be vacuumed and/or pumped, and to the extent possible, discharged back into the sanitary sewer system.

6.4.5 SSO Documentation

The City must maintain records for each sanitary sewer overflow. Records should include:
• Documentation of response steps and/or remedial actions
• Photographic evidence as available to document the extent of the SSO, field crew response operations
• Site conditions after field crew SSO response operations have been completed
• The date, time, location, and direction of photographs taken will be documented
• Documentation of how any estimations of the volume of discharged and/or recovered overflow were calculated

The records are maintained at the City corporation yard and are also entered into the City’s CMMS system.

6.4.6 SSO Regulatory Reporting

THE OERP provides SSO reporting guidelines and requirements, with specific discussion on the following topics:

• Addressing multiple appearance points as a single SSO
• 2-Hour notification requirement. 2-hour notification is required only for Category 1 SSOs 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. In addition, both the County Health Officer and EHS are to be contacted. During regular business hours, the Health Officer can be reached at (415) 473-3707 and the main EHS phone number to call is (415) 473-6907. During evenings/weekends, call the Sheriff Communication Center at (415) 479-2311. The First Responder is responsible for reviewing field data for reporting to regulatory agencies.

The First Responder must notify OES of the event no later than two (2) hours after:

1. The City has knowledge of the SSO;
2. Notification is possible; and
3. Notification can be provided without substantially impeding cleanup or other emergency measures.

The OES phone number is (800) 852-7550.

• Reporting requirements for each category of SSO. Also see Table 6-1.

• Within 30 calendar days of the end of a calendar month that there are no SSO’s, the LRO must submit and certify a “No Spill” certification to the CIWQS online SSO database.
• When CIWQS is not available, the LRO must fax or e-mail all required information to the RWQCB office at (510) 622-2460 in accordance with the time schedules identified above. In such an event, the City will submit the appropriate reports using the CIWQS online SSO database when the database becomes available. A copy of all documents that certify the submittal in fulfillment of this section shall be retained in the SSO document file.

Amending SSO Reports

The LRO is responsible for amending SSO reports. Certified SSO reports may be updated by amending the report or adding an attachment to the SSO report within 120 calendar days after the SSO end date. After 120 days, the City must contact the State SSO Program Manager to request to amend an SSO report along with a justification for why the additional information was not available prior to the end of the 120 days. The SWRCB SSO Program Manager contact information is as follows:

Armando Martinez  
State Water Resources Control Board,  
Division of Water Quality  
1001 I Street 15th Floor  
Sacramento, CA 95814  
E-mail: Armando.Martinez@waterboards.ca.gov  
Phone: (916) 341-5586

6.5 Follow-up Activities

The OERP includes information on actions to take after the SSO is addressed. The first step in SSO follow-up is clean up and disinfection.

6.5.1 Clean Up and Disinfection

The OERP discusses clean up and disinfection procedures that should be implemented to reduce the potential for human health issues and adverse environmental impacts that are associated with an SSO event. Cleanup procedures are described in the OERP for hard surface areas, as well as landscaped and unpaved areas. The OERP also discusses actions to be completed if the SSO has reached the storm drain system.

Clean up should proceed quickly in order to minimize negative impact. Any water that is used in the cleanup process should be de-chlorinated prior to use.
Where cleanup is beyond the capabilities of City staff, the Streets and Sewers Supervisor will contact a cleanup contractor to complete the work.

Spills inside houses or buildings should be cleaned by a professional cleaning company. Contact information for professional cleaning companies can be found in the “Water Damage Restoration” section of the Yellow Pages. Claims by homeowners should be forwarded to the Director of Public Works / City Engineer.

6.5.2 Impact to Waters of United States

If an SSO is confirmed to have entered waters of the United States\(^1\), the Inspection Superintendent is immediately notified. The response team then proceeds with the following additional activities:

- Determine the extent of the SSO by investigating downstream until there is no evidence of sewage or debris along the creek or water body
- Conduct Water Quality Sampling, following the process described below. If the SSO is 50,000 gallons or greater, collect water quality samples within 48 hours of becoming aware of the SSO
- Immediately post contaminated water sign(s) and protect the waterbody from public access on all sides
- Photograph sign placement and evidence of the overflow in and around the waterbody to the farthest point reached by the sewage
- Determines if the waterbody is safe to enter. During the winter storm season, cleaning the waterbody may not be feasible due to high water flows
- If feasible, block the waterbody downstream of the affected area in a location that is safe to enter and is accessible to set up a pump or utilize other sewer cleaning equipment
- To the extent feasible, recover and return contaminated water to the collection system
- Perform follow-up sampling until the area shows no water quality impairment and the posted signs can be removed. The Inspection Superintendent ultimately determines when this happens and makes any follow up calls to affected agencies

\(^1\) 40 CFR 230.3(s) defines the term “waters of the United States.” This term includes all lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, or natural ponds, or waters that could be used for recreational or other purposes.
6.5.3 Water Quality Sampling

Water quality sampling and testing is required whenever the spilled sewage enters a water body. The purpose of testing is to determine the extent and impact of the SSO. Water sampling guidelines are provided in the OERP.

Samples should be tested for fecal coliform, total coliform and enterococcus. Water samples may be taken to the **SASM Laboratory at 450 Sycamore Avenue, Mill Valley, CA 94941, (415) 388-2402**. The water samples must be brought to the laboratory within 8 hours of collection, before 3:00 pm, for processing.

If the SASM laboratory is closed, utilize an alternate testing laboratory managed by **Brelge & Race, 425 South E Street, Santa Rosa, CA 95404, (707) 544-8807**.

Records of monitoring information shall include the date, exact place, and time of sampling or measurements, the individual(s) who performed the sampling or measurements, the date(s) analyses were performed, the individual(s) who performed the analyses, the analytical technique or method used, and the results of such analyses.

6.5.4 Water Quality Monitoring Plan

A Water Quality Monitoring Plan is separate and distinct from routine water quality sampling. A Water Quality Monitoring Plan must be implemented immediately upon discovery of any **Category 1 SSO of 50,000 gallons or more** in order to assess impacts from SSOs to surface waters. Water quality testing must be completed within 48 hours of the City becoming aware of the SSO.

The City’s SSO Water Quality Monitoring Program is included in Appendix OERP-C, and includes the following:

- Protocols for water quality monitoring
- Account for spill travel time in the surface water and scenarios where monitoring may not be possible (e.g. safety, access restrictions, etc.)
- Requirement for water quality analyses for ammonia and bacterial indicators to be performed by an accredited or certified laboratory
- Requirement for monitoring instruments and devices used to implement the SSO Water Quality Monitoring Program to be properly maintained and calibrated, including any records to document maintenance and calibration, as necessary, to ensure their continued accuracy
6.5.3 SSO Technical Report

If 50,000 gallons or greater from an SSO reaches surface waters, an SSO Technical Report must be prepared and submitted to the CIWQS online SSO database within 45 calendar days of the SSO end date. The SSO Technical Report must address specific requirements, which are listed in the OERP. The OERP Appendix OERP-C also includes a template that includes all required items.

The Public Works Director / City Engineer is responsible for the development and certification of the SSO Technical Report.

6.5.4 SSO Notification Signage

The OERP discusses barriers that are required to prevent the public from having contact with the sewage during an SSO, and signs to be posted to inform and protect the public. A sample warning sign is included in Appendix OERP-C.

If a creek, stream and/or beach have been contaminated as a result of an SSO, notifications should be posted at visible access locations until the risk of contamination has subsided to acceptable background levels. The warning signs, once posted, should be checked every day to ensure that they are still in place. “Closed” signs should be posted at the outfall and a minimum of 100 feet upstream and 100 feet downstream of the discharge. If there is a large volume of sewage, more signs must be posted downstream.

Signs must remain posted until at least two consecutive days of sampling meet the Public Beach Sanitation and Ocean Water-Contact Sports standards that are described above. The removal of signs must be approved by EHS and the County Public Health Officer.

6.6 Communication with the Public

A sewer backup is a stressful event and as a representative of the City, you may have to deal with an irate homeowner. Please be aware that any homeowner will likely become more irate if it is perceived that City staff are indifferent, uncaring, unresponsive, and/or incompetent.

The OERP provides in-depth guidelines for these communications, including:

- Guidelines for general communications, including information to promote productive interactions with an affected homeowner
- Guidelines for public notification of spills that do and do not reach public waters, including information on posting warning signs

Please review the communication guidelines within the OERP thoroughly and regularly, as it is likely that there will not be sufficient time to learn this information after an SSO has occurred.
6.7 SSO Documentation

The OERP provides information regarding internal documentation of SSOs, as well as guidelines for the post-SSO failure analysis investigation.

6.7.1 Internal Documentation of SSOs

The First Responder should complete a work order and the SSO Field Report (See Appendix OERP-A). The First Responder should follow the procedures and complete the Sewer Backup Summary Report (See Appendix OERP-B) if an SSO has occurred in a residence or building.

The Director of Public Works/City Engineer should prepare a file for each individual SSO. The file should include the following information:

- Initial service call information
- Collection System Service Call & Overflow Field Report Form
- Copies of the certified CIWQS report forms including volume estimate
- Closed-Circuit Television (CCTV) inspection if completed
- Water quality sampling and test results, if applicable
- Results from the failure analysis investigation, if applicable

Each SSO records must be maintained for a minimum of five years from the date of the SSO. The following additional records shall be retained for all SSOs where applicable:

- All original recordings for continuous monitoring instrumentation
- Service call records and complaint logs of calls received by the City for the previous five years
- Work orders, work completed, and any other maintenance records from the previous five years which are associated with responses and investigations of system problems related to SSOs
- Documentation of performance and implementation measures for the previous five years

6.7.2 Failure Analysis Investigation

Following each Category I SSO, the City should conduct a failure analysis investigation is to determine the cause of the SSO and to identify corrective action(s) needed that will reduce or eliminate future potential for the SSO to recur. Additional information regarding the failure analysis investigation is included in the OERP.
### Table 6-1 Regulatory Reporting Requirements

<table>
<thead>
<tr>
<th>Element</th>
<th>Requirement</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NOTIFICATION</strong></td>
<td>Within two hours of becoming aware of any 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 City will notify the California Office of Emergency Services (OES) and obtain a notification control number.</td>
<td>Call Cal OES at: (800) 852-7550 County Health Officer (415) 473-3707 and Marin County Environmental Health Services (EHS) (415) 479-6907 are also to be contacted. During evenings/weekends, call the Sheriff Communication Center at (415) 479-2311.</td>
</tr>
</tbody>
</table>
| **REPORTING**            | • Category 1 SSO: The City will submit draft report within three business days of becoming aware of the SSO and certify within 15 calendar days of SSO end date.  
  • Category 2 SSO: The City will submit draft report within 3 business days of becoming aware of the SSO and certify within 15 calendar days of the SSO end date.  
  • Category 3 SSO: The City will submit certified report within 30 calendar days of the end of month in which SSO the occurred.  
  • SSO Technical Report: The City will submit within 45 calendar days after the end date of any Category 1 SSO in which 50,000 gallons or greater are spilled to surface waters.  
  • "No Spill" Certification: The City will certify that no SSOs occurred within 30 calendar days of the end of the month or, if reporting quarterly, the quarter in which no SSOs occurred.  
  • Collection System Questionnaire: The City will update and certify every 12 months | • Enter data into the CIWQS Online SSO Database (http://ciwqs.waterboards.ca.gov/), certified by the Legally Responsible Official(s).  
  • All information required by CIWQS will be captured in the Sanitary Sewer Overflow Report.  
  • Certified SSO reports may be updated by amending the report or adding an attachment to the SSO report within 120 calendar days after the SSO end date. After 120 days, the State SSO Program Manager must be contacted to request to amend an SSO report along with a justification for why the additional information was not available prior to the end of the 120 days. |
| **WATER QUALITY MONITORING** | • The City will conduct water quality sampling within 48 hours after initial SSO notification for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters. EHS requires daily water quality sampling until compliance is achieved, if there is a Category I discharge of 1,000 gallons or greater and spills into surface water. | Water quality results will be uploaded into CIWQS for Category 1 SSOs in which 50,000 gallons or greater are spilled to surface waters. |
| **RECORD KEEPING**       | The City will maintain the following records:  
  • SSO event records.  
  • Records documenting Sanitary Sewer Management Plan (SSMP) implementation and changes/updates to the SSMP.  
  • Records to document Water Quality Monitoring for SSOs of 50,000 gallons or greater spilled to surface waters.  
  • Collection system telemetry records if relied upon to document and/or estimate SSO Volume. | Self-maintained records shall be available during inspections or upon request. |
6.8 Contractors Working On City Sewer Facilities

All contractors working on City sewer facilities will be trained in the City’s OERP and will be required to follow the OERP in the event that they cause or observe an SSO.

6.9 Training

SSO Response Training

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

Initial and Annual Refresher Training

All City personnel who may have a role in responding to, reporting, and/or mitigating a sewer system overflow should receive training on the contents of this OERP. All new employees should receive training before they are placed in a position where they may have to respond. Current employees should receive regular refresher training on this plan and the procedures to be followed. Affected employees will receive annual training on the following topics, at a minimum, by knowledgeable trainers:

- The City’s Overflow Emergency Response Plan
- SSO Volume Estimation Techniques
- Impacted Surface Waters: Response Procedures

The City will verify that annual safety training requirements are current for each employee, and that employees are competent in the performance of all core competencies. The City will address, through additional training/instruction, any identified gaps in required core competencies.

SSO Response Drills

Periodic training drills should be held to ensure that employees are up to date on these procedures, equipment is in working order, and the required materials are readily available. The training drills will cover scenarios typically observed during sewer related emergencies (e.g. mainline blockage, mainline failure, force main failure, pump station failure, and lateral blockage). The results and the observations during the drills will be recorded and action items should be tracked to ensure completion.
SSO Training 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 and will include date, time, place, content, name of trainer(s), and names of attendees.

Appendix E – Overflow Emergency Response Plan

Appendix E includes a full copy of the City’s Overflow Emergency Response Plan. The information in this document will change from time to time, and the OERP may have been superseded. Please contact the City Engineer for the most recent updates to the OERP.
ELEMENT 7 - FOG CONTROL PROGRAM

The intent of this section of the SSMP is to evaluate the extent and nature of SSOs related to Fats, Oils and Grease (FOG), to determine the need for a FOG Control Program, and to outline the elements of the City’s FOG control program.

The City does not have chronic FOG-related SSO locations, and therefore does not require a FOG Control Program. However, the City proactively adopted a FOG policy in August 2006 that defines a program to reduce the discharge of FOG from restaurants and other food service establishments to levels that will not cause blockage in sewer lines. The City’s FOG policy is included in Appendix F.

7.1 SWRCB SSMP Requirements

The summarized requirements for the FOG Control Program element of the SSMP are as follows:

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

- 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 SSOs 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, enforce requirements, and determine whether the City has sufficient staff to inspect and enforce the FOG ordinance
- An identification of sewer system sections subject to FOG blockages and the establishment of a cleaning maintenance schedule for each section
7.2 **Goals for the FOG Program**

The FOG program is designed to accomplish the following goals:

- Maintenance of the database of City FSE information
- Identification and documentation of new FOG hot spots in the sewer system
- Notification for new and remodeled FSEs of the Program and Ordinance requirements
- Implementation of the FOG control program for new and remodeled FSEs, including permit issuance and field inspections
- Administration of the Program including coordination with City staff, periodic inspections of permitted FSEs, and follow-up inspections and enforcement as needed

7.3 **Sewer Cleaning Activities**

The City cleans grease-related backups using hydrojetting and rodding. The cleaning program has been successful at limiting grease-related SSOs, with one FOG-related SSO in fiscal year 2017/18, and four FOG-related SSOs in fiscal year 2018/19.

7.4 **Public Education Plan**

FOG-related issues within the collection system are primarily the result of residential FOG generation. Therefore, the City uses a variety of educational outreach materials to inform residents about the impacts of grease waste on the sewer system, in terms of contributing to SSOs, impacting public health, and creating water quality concerns. Available materials include brochures and door hangers.

The City has approximately 40 food service establishments (FSE). The City’s commercial FOG outreach efforts include educating the City’s FSE owners and employees about minimizing FOG disposal into the sewer system.

7.5 **FOG Disposal Plan**

Currently, grease haulers dispose of grease pumped from interceptors at a grease collection facility located outside of the service area. At this time, there does not appear to be a need for additional grease disposal facilities to collect grease from the City’s service area. However, the
City may choose to evaluate this need further, should the need for additional grease disposal facilities become an issue in the future.

### 7.6 Legal Authority to Prohibit SSOs and Blockages Caused by Fog Discharge

The City’s Municipal Code Title 17, which is included in Appendix B, provides the legal framework for enforcing illicit discharges to the collection system. Specifically, the Municipal Code 17.04.400 et. seq. allows the City Manager to make and enforce regulations to protect the sewer system. Under this authority, the City developed the FOG policy. The FOG policy requires the following:

- All FSEs shall have a bin or drum for collecting waste kitchen grease and used cooking oil. Receipts or other documentation of the cleaning service for the bin or drum shall be retained at the FSE and presented to City staff or the County inspector on request.
- The FSE shall maintain adequate employee training and/or kitchen signage to assure that the container is used and maintained in an appropriate manner.
- FSEs shall not discharge or create a situation that results in discharge of FOG or other wastes to storm water drainage.
- Newly constructed FSEs shall install an interceptor of a size that meets Uniform Plumbing Code, and shall plumb all fixtures and equipment which may receive FOG to the interceptor.
- The City reserves the right to require installation of an interceptor or grease trap when an FSE completes a major remodel, and to determine the requirements on a case by case basis.
- Existing FSEs that do not currently have a grease trap or interceptor installed must implement the Best Management Practices (BMPs) for grease handling and disposal that are defined in the FOG policy.

The FOG policy also includes requirements for the cleaning and maintenance of any installed grease interceptors and grease traps, for the submittal of documentation for review and City approval, and for provision of access for equipment inspection. The County of Marin Environmental Health Services (EHS) conducts regular inspections of the City’s FSEs. These inspections include evaluating grease collection and disposal practices.
7.7 Sewer Sections Subject to FOG Blockages

In 2013 the City has reported three FOG-related SSOs. The first, at 150 Monte Vista Avenue, occurred in March 2013. The second, at 285 Manor Drive in April 2013 and the third SSO occurred at 114 Ryan Avenue in August 2013. The first and third locations are residential and were exacerbated by some root intrusion, whereas the second is a recreational tennis facility. None of the locations had prior FOG-related issues.

Appendix F – FOG Control Program Documents

Appendix F includes the following documents related to this section. The information in these documents will change from time to time, and the documents in Appendix F may have been superseded. Please contact the Public Works Director/City Engineer for the most recent updates to the Appendix F documents.

- Fats, Oils and Grease Policy (August 2006)
ELEMENT 8 - SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN

This section of the SSMP discusses the City’s activities related to capacity management. This section fulfills the Capacity Management requirements for the SWRCB element.

8.1 SWRCB SSMP Requirements

The summarized requirements for the System Evaluation and Capacity Assurance Plan element of the SSMP are as follows:

The City must prepare and implement a capital improvement plan (CIP) that will provide hydraulic capacity of key sanitary sewer system elements from dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. At a minimum, the plan must include:

- **Evaluation:** Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused my hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;

- **Design Criteria:** Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria; and

- **Capacity Enhancement Measures:** The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.

- **Schedule:** The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the Sewer System Management Plan (SSMP) review and update requirements as described in Section D. 14.

8.2 System Evaluation and Capacity Assurance Plan

A capacity assessment was completed for SASM and its member agencies, including the City of Mill Valley, based on flow monitoring data obtained during the 2008/09 and 2009/10 wet weather seasons. The assessment included hydraulic modeling of the SASM conveyance system
and key portions of the member agency collection systems. The capacity assessment was used to develop a Capacity Assurance Plan and Capital Improvement Plan (CIP). This evaluation is documented in the City’s Sewage Spill Reduction Action Plan, Volume III, October 2010. The portion of the report that pertains to the capacity assessment is included in Appendix G.

### 8.2.1 Pipeline Capacity Assessment and Capital Improvement Plan

The City’s pipeline capacity assessment needs were developed using a calibrated, fully dynamic sewer collection system hydraulic model. The model includes a representation of the SASM conveyance system and key sewers, including the City’s three major trunk sewers. The first pipe comprises a 15- and 18-inch trunk sewer that extends southwest along Miller Avenue from Throckmorton Avenue to Montford Avenue/La Goma Street, connecting into the 21-inch SASM sewer in Miller Avenue at its downstream end. The second pipe is a 10- and 18-inch trunk sewer that parallels a 21-inch SASM L line in Camino Alto from East Blithedale Avenue to Sycamore Avenue. The third pipe, a 15-inch sewer in Sycamore Avenue, connects to the 30-inch SASM trunk near Nelson Avenue.

The hydraulic modeling determined that the 15-inch trunk sewer in Miller Avenue from Millwood Street to Willow Street is undersized for the projected peak wet weather flows. The recommended solution is a high overflow diversion to divert flow from the 18-inch trunk sewer in Miller Avenue at Millwood Street to a parallel 8-inch sewer. The estimated cost for this project was $37,000.

### 8.2.1 Pump Station Capacity Assessment and Capital Improvement Plan

The City’s two pump stations, Frontage Road Pump Station and Shelter Bay Pump Station, are maintained and operated by SASM. Although these pump stations were not included in the hydraulic model, peak wet weather flows were estimated based on the relative size of the tributary areas and nearby inflow and infiltration characteristics. Based on these preliminary estimates, both stations could have insufficient firm capacity to handle the design wet weather event peak wet weather flow.

The City installed a pump logger at the Frontage Road Pump Station to collect data needed to refine capacity improvements. Capacity improvement projects will be developed in the future for this pump station based on this new data.

Based on the information provided through the SSRAP, the City has concluded that available in-system storage upstream of the Shelter Bay Pump Station should be sufficient to address the predicted capacity need at this facility. Therefore, a project to increase the capacity of this facility is not included in the CIP.
8.3 Capital Improvement Program Budget and Schedule

The City’s Capital Improvement budget and schedule are included in the two-year (2012-2014) budget and workplan that are included in Appendix G.

Appendix G – System Evaluation and Capacity Assurance Plan Documents

Appendix G includes the following documents related to this section. The information in these documents will change from time to time, and the documents in Appendix G may have been superseded. Please contact the Public Works Director/City Engineer for the most recent updates to the Appendix G documents.

- Sewage Spill Reduction Action Plan Volume III, October 2010, Sections Related to Capacity Assurance
- Two-Year Budget and Workplan
ELEMENT 9 - MONITORING, MEASUREMENT AND PROGRAM MODIFICATIONS

This section of the SSMP discusses the City’s Monitoring, Measurement, and Program Modifications. This section fulfills the Monitoring, Measurement, and Program Modifications requirements for the SWRCB element.

9.1 SWRCB SSMP Requirements

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

9.1.1 SWRCB Requirement

The City shall:

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

9.2 Utility Metrics to Measure Progress and Prioritize Activities

The City has established the preventive maintenance sewer metrics that are shown in Table 9-1 for use in monitoring, measuring and adjusting sewer maintenance activities. After these metrics are included in the City’s new CMMS system, they will be monitored on a regular basis. Until this time, City staff will compile and monitor the most relevant indicators, which include the number and causes of SSOs, length of pipes cleaned, length of pipes televised and length of pipes repaired.
Table 9-1. Success Factors and Metrics

<table>
<thead>
<tr>
<th>Sewer Maintenance Success Factor</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Pipes</td>
<td>Miles</td>
</tr>
<tr>
<td>Sewer Maintenance Field Staff</td>
<td>Full Time Equivalents (FTE)</td>
</tr>
<tr>
<td>Pipes Cleaned</td>
<td>Miles/Year</td>
</tr>
<tr>
<td>Pipe Inspected (CCTV)</td>
<td>Miles/Year</td>
</tr>
<tr>
<td>Manholes Inspected</td>
<td>Miles/Year</td>
</tr>
<tr>
<td>SSOs</td>
<td>Number by Underlying Cause per 100 Miles</td>
</tr>
<tr>
<td>Pump Station Overflows</td>
<td>Number by Cause</td>
</tr>
<tr>
<td>Pipe Replaced</td>
<td>Miles/Year</td>
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</tbody>
</table>

9.3 SSO Trends – Frequency, Location and Volume

Table 9-2 summarizes the nature of reported SSOs beginning in 2015 through December 2019.

Table 9-2. Summary of SSOs from January 2015 through December 2019 (5 Years)

<table>
<thead>
<tr>
<th>Year</th>
<th>Roots</th>
<th>FOG</th>
<th>Debris</th>
<th>Structural &amp; Other</th>
<th>Total (#)</th>
<th>Volume (Recovered, Gal)</th>
<th>Volume (Lost, Gal)</th>
<th>Volume (Total, Gal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>19</td>
<td>4</td>
<td>12</td>
<td>3</td>
<td>38</td>
<td>1,140</td>
<td>8,595</td>
<td>9,735</td>
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<tr>
<td>2016</td>
<td>14</td>
<td>2</td>
<td>10</td>
<td>1</td>
<td>27</td>
<td>970</td>
<td>4,705</td>
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<td>2017</td>
<td>12</td>
<td>1</td>
<td>4</td>
<td>1</td>
<td>18</td>
<td>570</td>
<td>2,650</td>
<td>3,220</td>
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<td>2018</td>
<td>12</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>19</td>
<td>1,182</td>
<td>1,968</td>
<td>3,150</td>
</tr>
<tr>
<td>2019</td>
<td>8</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>16</td>
<td>169</td>
<td>2,635</td>
<td>2,804</td>
</tr>
</tbody>
</table>

Appendix H – Monitoring, Measurement and Program Modification Documents

There are no Appendix documents to accompany Section IX. However, this Appendix H is included as a placeholder for future documents.
ELEMENT 10 - SSMP PROGRAM AUDITS

This section of the SSMP discusses the City’s SSMP auditing program. This section fulfills the SSMP Audit requirement for the SWRCB element.

10.1 SWRCB SSMP Requirements

The 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 two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the City’s compliance with the SSMP requirements, including identification of any deficiencies in the SSMP and steps to correct them.

10.2 Audit Procedures, Roles and Responsibilities

The City has prepared regular SSMP audits, and has retained them on file at the City offices. The audit template is included in Appendix I.

10.3 SSMP Program Modification/Update Process

If the biannual audit identifies significant changes to be made to the SSMP, then the SSMP will be updated by June 30 of the same year in which the audit was submitted. However, it is anticipated that the main SSMP document will remain generally unchanged, and that a comprehensive SSMP update will be completed every five years, as required by the WDR.

Changes made to the SSMP will be documented in the Change Log located in Appendix I. SSMP Audit results are also included in Appendix I.
Appendix I – SSMP Program Audit Documents

Appendix I includes the following documents related to this section. The information in these documents will change from time to time, and the documents in Appendix I may have been superseded. Please contact the Public Works Director/City Engineer for the most recent updates to the Appendix I documents.

- SSMP Audit Form
- SSMP Change Log
- SSMP Audits
ELEMENT 11 - COMMUNICATION PLAN

This section of the SSMP discusses the City’s Communication plan. This section fulfills the Communication Plan requirements for the SWRCB element.

11.1 SWRCB SSMP Requirements

The 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. The City shall also create a plan of communication with systems that are tributary and/or satellite to the sanitary sewer system.

The City shall post the SSMP on its website or otherwise provide the SSMP in electronic form to the SWRCB.

11.2 Communication Plan

The City does not currently have a formal communication plan in place for the communication of SSMP elements, performance or updates. However, the City has a comprehensive library of documents that are available to the public through the Public Works page of the City website. The SSMP will be added to this library for access by the public, and a clear link to the document will be provided on the Public Works page to facilitate access to the document.

Along with the link to the SSMP document, the reference on the website page will be configured to facilitate access to the individual SSMP attachments related to communication, such as SSO warning signage and FOG control literature.

Appendix J – Communication Plan Documents

There are no Appendix documents to accompany Section XI. However, this Appendix J is included as a placeholder for future documents.