



## **ELEMENT 6 - OVERFLOW EMERGENCY RESPONSE PLAN**

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The Overflow Emergency Response Plan (OERP) is summarized in this SSMP Element and provided in its entirety with the associated Emergency Operating Procedures (EOPs) in Appendix 6A. The OERP addresses issues such as SSO response, detection, mitigation, clean up, investigation, documentation, and reporting.

### **6.1 Regulatory Requirements**

WDR Order No. 2006-0003-DWQ Section D.13(vi) states:

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

- (a). Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
- (b). A program to ensure appropriate response to all overflows;
- (c). 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 MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;
- (d). Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the OERP and are appropriately trained;
- (e). Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and
- (f). A program to ensure that all reasonable steps are taken to contain untreated wastewater and prevent discharge of untreated wastewater to waters of the United States and to 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 Initial SSO Notification Procedures [WDR D.13(vi)(a)]**

If a member from the public witnesses a SSO, they either contact the City of Pacific Grove Public Works Department at (831) 648-5722 or dial 9-1-1.

#### **6.2.1 The City Public Works Department as the First Responder**

If the City Public Works Department is contacted during normal business hours, which are 7:30 AM – 4:00 PM Monday through Friday, excluding legal holidays, Lawrence (Stoney) Bangert, Administration, calls Vince Gentry, Wastewater Field Supervisor, at (831) 760-0643 or the next available Public Works Staff to investigate the situation and also enters the caller's information and the details of the SSO, such as date, time, and SSO location, into iWorQ, which

automatically sends an email to Vince with the SSO information. If City Staff needs assistance responding to the SSO, the first responder calls County Com at (831) 647-7911, which contacts Dispatch for the Police and Fire Departments. If City Staff needs further assistance, Vince Gentry or the first responder calls Green Line at (831) 422-3279 per the City's contract with Green Line for Emergency Call-out Services, which is included in Appendix 6B. Vince Gentry or the first responder also calls Michael Zimmer to notify him of the SSO.

If the City Public Works Department is contacted after normal business hours, on a holiday, or during the weekend, the message recording directs the caller to call the Police Department at (831) 648-3143.

#### 6.2.2 Emergency Services as the First Responder

If 9-1-1 is called to report a SSO, the Pacific Grove Police and/or Fire Department responds to the call and contacts the City Public Works Department at (831) 648-5722 or Vince Gentry at (831) 760-0643 as outlined in Appendix 6A, SS-EOP-02: SSO Notification.

If the SSO occurs after hours, the Pacific Grove Police/Fire Department responds to the call and contacts City Staff in the order and with the contact information provided in Appendix 6A, SS-EOP-02: SSO Notification, Attachment 2.

If City Staff needs assistance responding to the SSO, the first responder calls Green Line at (831) 422-3279 per the City's contract with Green Line for Emergency Call-out Services, which is included in Appendix 6B. If Vince Gentry is not responding to the SSO, the first responder calls him at (831) 760-0643 to notify him of the SSO. The first responder also calls Michael Zimmer at (831) 760-0604 and notified of the SSO. If Michael Zimmer cannot be reached, Daniel Gho is called at (831) 760-0600 and notified of the SSO. If Daniel Gho cannot be reached Sarah Hardgrave is called at (831) 648-5722 ext. 202 and notified of the SSO.

#### 6.2.3 Initial Regulatory Notification

The City ensures regulatory agencies are informed of all SSOs in a timely manner through the SSO Notification Procedure provided in Section 6.4: SSO Notification and Reporting Procedures of this SSMP Element.

### **6.3 SSO Response Program [WDR D.13(vi)(b)]**

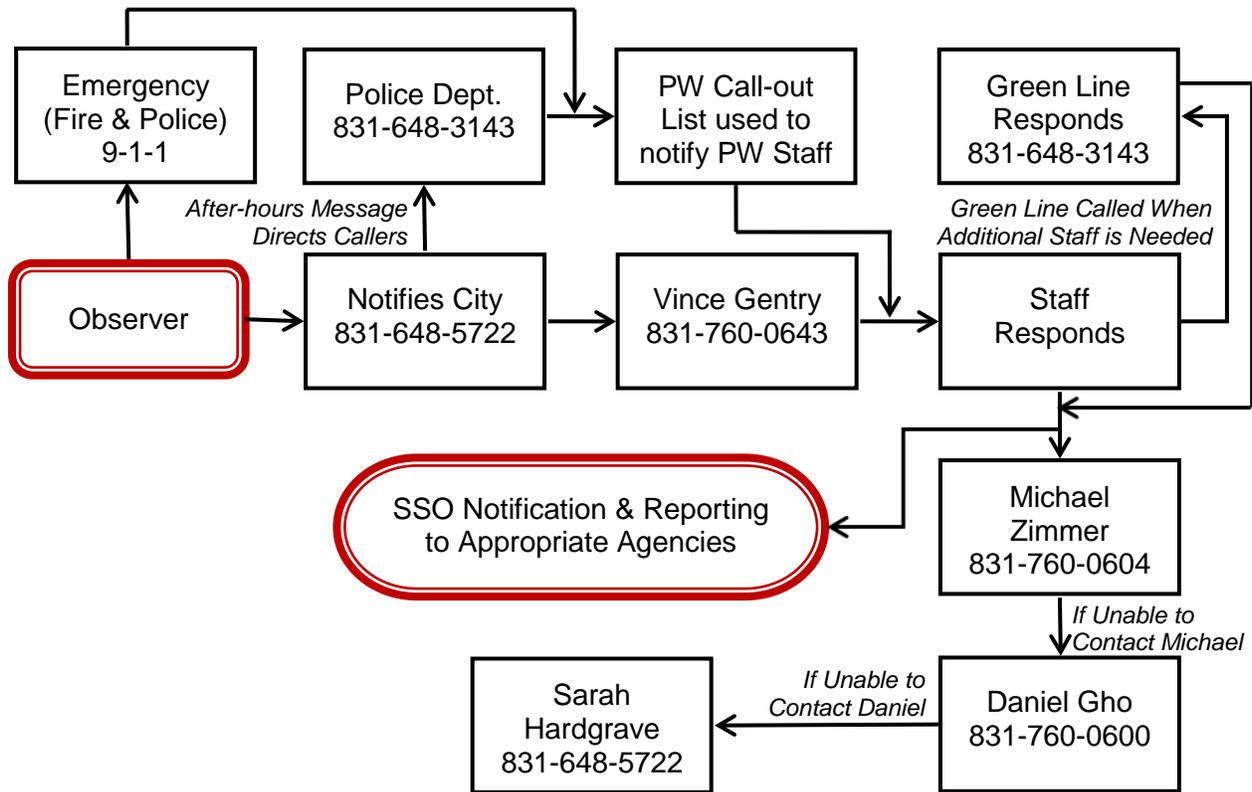
The SSO Response Program is comprised of the procedures and programs discussed in this Element, the contract the City has with Green Line for Emergency Call-out Services, the coordination and communication that is maintained between City Staff and the Police and Fire Departments, and the following EOPs, which are provided in Appendix 6A:

- SS-EOP-01: Overflow Emergency Response Plan
- SS-EOP-02: SSO Notification
- SS-EOP-03: SSO Reporting
- SS-EOP-04: SSO Traffic and Crowd Control
- SS-EOP-05: SSO Volume Estimation

- SS-EOP-06: SSO Mitigation and Cleanup
- SS-EOP-07: Water Quality Monitoring and SSO Impact Assessment
- SS-EOP-08: SSO Response Documentation and Records
- SS-EOP-09: SSO Training Requirements

The City's Public Works Administrative Office is open and can receive notifications of SSOs from 7:30 AM to 4:00 PM, Monday through Friday, excluding legal holidays. After hours, on weekends, and on holidays, City Staff, the Police Department, and the Fire Department coordinate SSO notification efforts and City Staff and/or Green Line respond SSOs.

Figure 6-1 illustrates the chain of command, which must be observed and followed when a SSO occurs:



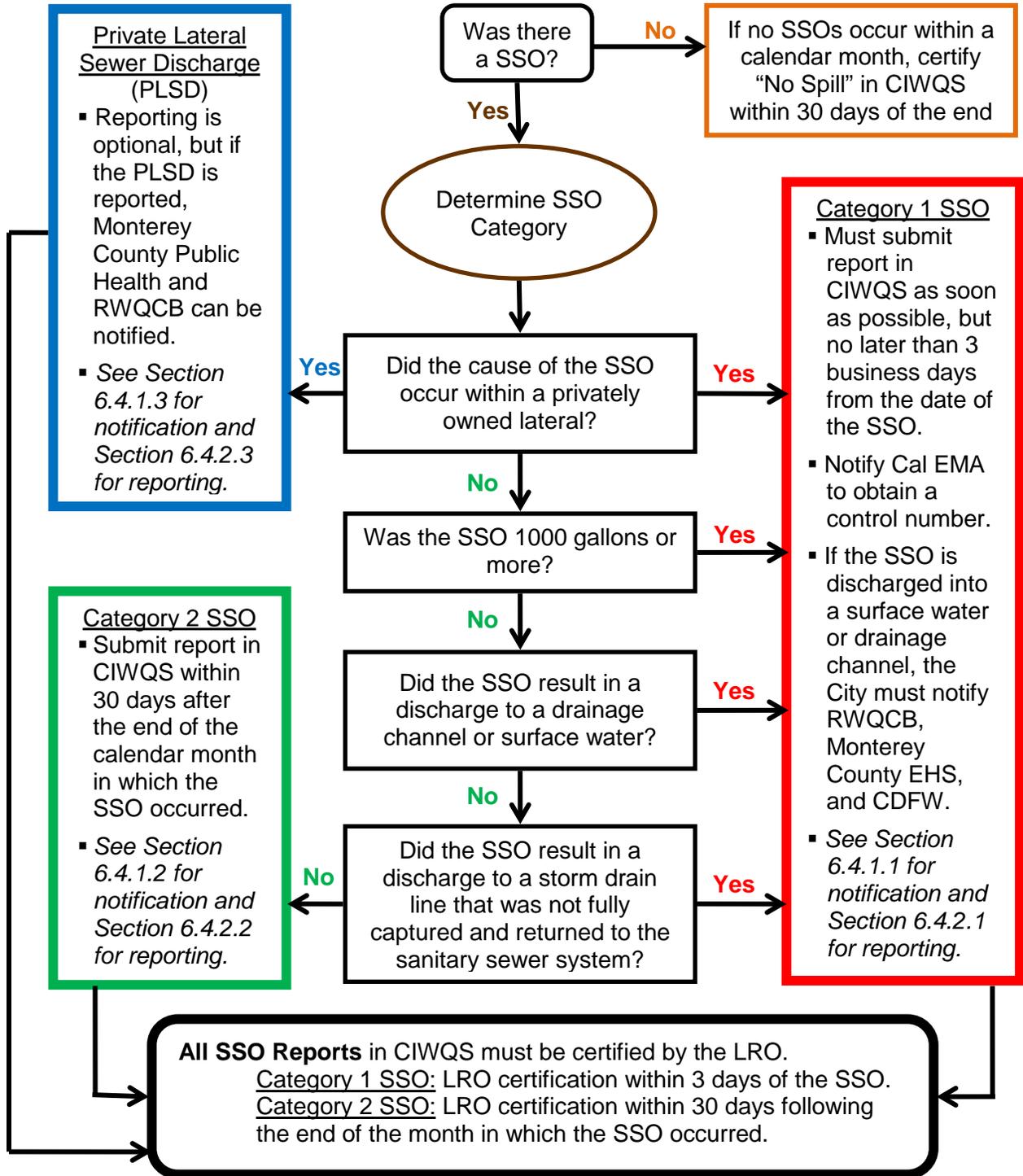
**Figure 6-1: SSO Response Chain of Command**

The details of City Staff's response to SSOs, which is identified in the chain of command, are provided in the EOPs included in Appendix 6A.

#### **6.4 SSO Notification and Reporting Procedures [WDR D.13(vi)(c)]**

This section of the OERP ensures proper notification and reporting of SSOs, which occur in the City of Pacific Grove’s sanitary sewer collection system, in order to protect public and environmental health. The SSO Notification and Reporting Procedures, SS-EOP-02 and SS-EOP-03, respectively, are outlined below and are provided in their entireties in Appendix 6A.

An overview of the notification and reporting process is also illustrated on the following page in Figure 6-1. This overview is not inclusive of all of the notification and reporting requirements and procedures. The section of this SSMP Element corresponding to each SSO category for notifications and reporting must be referenced, and the SSO Notification and Reporting Procedures, SS-EOP-02 and SS-EOP-03, respectively, must be followed.



1. These reporting requirements do not preclude other emergency notification requirements and timeframes mandated by other regulatory agencies.
2. If CIWQS is not available, you must fax the report to RWQCB and reattempt as soon as possible.
3. Reports in CIWQS can be amended at any time; however, any amended reports will need to be certified by the LRO.

**Figure 6-2: SSO Notification and Reporting Overview**

6.4.1 SSO Notification Procedure

SSO notification procedures vary based on whether the SSO is classified as a Category 1, Category 2, or PLSD. After notifying the RWQCB of any SSO, Michael Zimmer should email RWQCB Staff, Sheila Soderberg, at ssoderberg@waterboards.ca.gov to confirm that the report was submitted and received.

6.4.1.1 *Category 1 SSOs*

For any discharges of sewage that result in a discharge to a drainage channel or a surface water, the City shall, as soon as possible, but no later than two (2) hours after becoming aware of the discharge, notify:

**Table 6-1: Regulatory Agency Notification Information for a SSO to Surface Water**

Agency	Contact Information	
California Emergency Management Agency	Office:	(800) 852-7550
Monterey County Office of Emergency Services	Office:	(831) 796-1900
Monterey County Environmental Health Services	Office:	(800) 253-2687
Central Coast Regional Water Quality Control Board	Office:	(805) 549-3147
	Fax:	(805) 543-0397
California Department of Fish and Wildlife	Office:	(599) 243-4005 ext.151
United States Coast Guard	Office:	(831) 647-7300
	Office:	(831) 647-4217
Monterey Bay National Marine Sanctuary	Emergency Pager:	(831) 236-6797
National Oceanic and Atmospheric Administration	Office:	(831) 902-2778
MRWPCA	Office:	(831) 422-1001
		(831) 372-3367
	<u>After Hours</u> Office:	(831) 883-6166
	Cell:	(831) 238-4429
Monterey Bay Aquarium <sup>1</sup>	Office:	(831) 648-4974
	Cell:	(831) 917-3741
	<u>Back-up</u> Office:	(831) 648-4959
Hopkins Marine Life Refuge <sup>1</sup>	Office:	(831) 655-6245

<sup>1</sup>Only call the Monterey Bay Aquarium (Roger Phillips, Director of Applied Research, or the back-up, Kelleen Harris) and Hopkins (Freya Sommer) when the SSO is in the proximity of their intakes.

As soon as possible, but no later than twenty-four (24) hours after becoming aware of a discharge to a drainage channel or a surface water, the City shall submit to the Central Coast Regional Water Quality Control Board a certification that the California Emergency Management Agency and Monterey County Environmental Health have been notified of the discharge.

If a SSO occurs due to a problem in the City’s sanitary sewer collection system and does not reach a drainage channel or surface water and is 1000 gallons or more in volume, the City should notify the following agencies within two (2) hours:

**Table 6-2: Regulatory Agency Notification Information for a Cat. 1 SSO to Land**

Agency	Contact Information	
California Emergency Management Agency	Office:	(800) 852-7550
Monterey County Office of Emergency Services	Office:	(831) 796-1900
Monterey County Environmental Health	Office:	(800) 253-2687
Central Coast Regional Water Quality Control Board	Office:	(805) 549-3147
	Fax:	(805) 543-0397
California Department of Fish and Wildlife	Office:	(599) 243- 4005 ext.151
MRWPCA	Office:	(831) 422-1001
		(831) 372-3367
	<u>After Hours</u>	
	Office:	(831) 883-6166
	Cell:	(831) 238-4429

6.4.1.2 *Category 2 SSOs*

If a SSO occurs due to a problem in the City’s sanitary sewer collection system and does not reach a drainage channel or surface water and is less than 1000 gallons in volume, the City may notify RWQCB by calling (805) 549-3147 within twenty-four (24) hours.

6.4.1.3 *PLSDs*

If a private lateral sewage discharge (PLSD) occurs, the City may contact Monterey County Environmental Health at (800) 253-2687 and may contact RWQCB at (805) 549-3147.

6.4.2 SSO Reporting Procedure

SSO reporting procedures vary based on whether the SSO is classified as a Category 1, Category 2, or PLSD.



#### 6.4.2.1 *Category 1 SSOs*

Report all Category 1 SSOs as soon as:

1. City Staff or contractors have knowledge of the discharge;
2. Reporting is possible; and
3. Reporting can be provided without substantially impeding cleanup or other emergency measures

The Category 1 SSO must be reported in CIWQS as soon as possible, but no later than three (3) business days after the City is made aware of the SSO. If CIWQS is not available, the required information must be faxed to RWQCB at (805) 543-0397.

The details of this report and its content and how to complete and submit the report in CIWQS is included as an attachment to SS-EOP-03: SSO Reporting, which is provided in Appendix 6A.

#### 6.4.2.2 *Category 2 SSOs*:

Report all Category 2 SSOs in CIWQS within thirty (30) days after the end of the calendar month in which the SSO occurs. If CIWQS is not available, the required information must be faxed to RWQCB at (805) 543-0397.

The details of this report and its content and how to complete and submit the report in CIWQS is included as an attachment to SS-EOP-03: SSO Reporting, which is provided in Appendix 6A.

#### 6.4.2.3 *PLSDs*

PLSDs may be reported in CIWQS at the City's discretion, but it is not required. If a PLSD is reported in CIWQS, the City must identify the SSO as occurring and caused by a private lateral, and a responsible party, who is not the City, should be identified, if known.

### **6.5 OERP Training [WDR D.13(vi)(d)]**

The City will develop a formal training program by September 2013 as described in SSMP Element 4 – Operation and Maintenance Program, which will include annual training of City Staff on this SSMP Element and its Appendices. The City will also require contractor personnel to annual train on and follow this SSMP Element and its Appendices through their contracts by September 2013. The City will revise this section of this SSMP Element upon the initiation of this training program and maintain a log of OERP Training in this Element as training is completed.

SS-EOP-09: SSO Training Requirements also provides an outline of the City's training program in respect to SSO response and mitigation and is included in Appendix 6A.

**6.6 Emergency Operations Procedures [WDR D.13(vi)(e)]**

The City of Pacific Grove utilizes the 2009 11<sup>th</sup> Edition of the Work Area Traffic Control Handbook (WATCH) for traffic control, as identified in SS-EOP-04: SSO Traffic and Crowd Control, which is provided in Appendix 6A.

The City contacts the Police Department and depends on their assistance when crowd control is necessary, as identified in SS-EOP-04: SSO Traffic and Crowd Control, which is provided in Appendix 6A.

**6.7 SSO Impact Mitigation Program [WDR D.13(vi)(f)]**

The SSO Mitigation Program is comprised of the mitigation practices contained in SS-EOP-07: Water Quality Monitoring and SSO Impact Mitigation, which is provided in Appendices 6A.

As addressed in SS-EOP-07: Water Quality Monitoring and SSO Impact Mitigation, City of Pacific Grove Staff posts beach warning and closure signs in the event that a SSO reaches the ocean, and the Monterey County Environmental Health Services conducts the water quality sampling for the SSO impact assessment.

## APPENDIX 6A

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### Overflow Emergency Response Plan and Association Emergency Operating Procedures

- SS-EOP-01: *Overflow Emergency Response Plan*
- SS-EOP-02: *SSO Notification*
- SS-EOP-03: *SSO Reporting*
- SS-EOP-04: *SSO Traffic and Crowd Control*
- SS-EOP-05: *SSO Volume Estimation*
- SS-EOP-06: *SSO Mitigation and Cleanup*
- SS-EOP-07: *Water Quality Monitoring and SSO Impact Assessment*
- SS-EOP-08: *SSO Response Documentation and Records*
- SS-EOP-09: *SSO Training Requirements*

 <b>Standard Operating Procedure</b> City of Pacific Grove		Document No:  SS-EOP-01
Title: OVERFLOW EMERGENCY RESPONSE PLAN		Revision: 0
Issued by:  Michael Zimmer <i>Community Development/Public Works Director,</i> City of Pacific Grove	Prepared by:  Anastasia Mylonas <i>Engineering Associate,</i> Wallace Group	Page: 1 of 14  Effective Date: 6/19/2013

**1. Purpose**

The purpose of the Overflow Emergency Response Plan (OERP) is to ensure proper emergency response activities are in place for safe and effective response to sanitary sewer overflows (SSOs), which occur in the City of Pacific Grove's (City's) sanitary sewer collection system, in order to protect public and environmental health.

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## 2. Location

A SSO, which requires the use of the OERP, can occur anywhere in the City's sanitary sewer collection system. Figure 1-1 illustrates the City service area in which the sanitary sewer collection system is located.



Source: Esri, DigitalGlobe, GeoEye, Earthstar, USDA, USGS, AeroGRID, IGN, IGP, and the GIS User Community

810 CLARKSON COURT  
SAN LUIS OBISPO, CA 95061  
T 805 544-4011 F 805 544-4294  
www.wallacegroup.com  
CIVIL ENGINEERING, CONSTRUCTION MANAGEMENT  
LANDSCAPE ARCHITECTURE, MECHANICAL ENGINEERING  
PLANNING, PUBLIC WORKS ADMINISTRATION  
SURVEYING SOLUTIONS, WATER RESOURCES  
WALLACE SIMMONS INTERNATIONAL

WALLACE GROUP



City of Pacific Grove  
Service Area

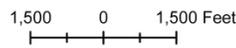


Figure 1-1: City Service Area

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### **3. Scope and Availability**

The State Water Resources Control Board's (SWRCB) Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WDR), Order No. 2006-0003-DWQ, establishes the requirement for all federal and state agencies, municipalities, counties, districts, and other public entities, which own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California, to develop and implement an OERP that identifies measures to protect public health and the environment.

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#### 4. Definitions

<b>Term</b>	<b>Definition</b>
Business Hours	The City Administrative Office's business hours are 7:30 AM – 4:00 PM, Monday through Friday, excluding legal holidays.
Cal/OSHA	Cal/OSHA is the California Division of Occupational Health and Safety and protects workers and the publics from safety hazards through its health and safety programs.
California Code of Regulations (CCR)	The CCR is the official compilation and publication of the regulations adopted, amended, or repealed by state agencies pursuant to the Administrative Procedure Act.
California Integrated Water Quality System (CIWQS)	The online reporting system developed, hosted, and maintained by the SWRCB for compliance with the WDRs.
Category 1 SSO	All discharges of sewage resulting from a failure in City's sanitary sewer system that: <ol style="list-style-type: none"> <li>1. Equal or exceed 1000 gallons, or</li> <li>2. Result in a discharge to a drainage channel and/or surface water; or</li> <li>3. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.</li> </ol>
Category 2 SSO	All other discharges of sewage resulting from a failure in City's sanitary sewer system, which are not Category 1 SSOs.
City of Pacific Grove (City)	The City operates and maintains a sanitary sewer collection system, which conveys sewage to the wastewater treatment plant operated and maintained by Monterey Regional Water Pollution Control Agency (MRWPCA).
Code of Federal Regulations (CFR)	The CFR is the codification of the general and permanent rules published in the Federal Register by the departments and agencies of the Federal Government.
Collection	Generic term for any system of pipes, sewer lines, and lift stations used

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<b>Term</b>	<b>Definition</b>
System	to convey wastewater to a treatment facility.
Data Submitter	A Data Submitter is any individual authorized by the LRO to enter data into CIWQS, the online SSO database, on behalf of the City. In order for a person to be officially designated as a Data Submitter, they must complete the SWRCB's Data Submitter Registration Form for the SSO Database, which must be approved and signed by the City's LRO and is available on the SWRCB's website at the following link: <a href="http://www.waterboards.ca.gov/water_issues/programs/ssso/docs/datasubmitter_form.pdf">http://www.waterboards.ca.gov/water_issues/programs/ssso/docs/datasubmitter_form.pdf</a> .
Drainage Channel	A man-made canal used to transport stormwater as part of a municipal separate storm sewer system, or an intermittent or perennial stream bed.
Emergency Operating Procedure (EOP)	An EOP is a form of a standard operating procedure (SOP) for an activity associated with an emergency situation. SOP is defined below.
Green Line	Green Line is contracted by the City to provide collection system hydroflush cleaning and tree root removal services and emergency call out services.
Injury and Illness Prevention Program (IIPP)	The IIPP is a basic written workplace safety program, which is required by Title 8 of the California Code of Regulations (CCR). The IPP includes eight elements: (1) Responsibility, (2) Compliance, (3) Hazard Assessment, (5) Accident/Exposure Investigation, (6) Hazard Correction, (7) Training and Instruction, and (8) Recordkeeping.
Lateral	The segment of pipe which connects a home or building to a sewer main, which is usually located beneath a street or easement.
Legally Responsible Official (LRO)	A LRO is the person designated for the City as either a principal executive officer or ranking elected official or a duly authorized representative of that person. An individual is a duly authorized representative if: <ol style="list-style-type: none"> <li>1. The authorization is made in writing by a LRO; and</li> <li>2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.</li> </ol> <p>In order for a person to be officially designated as a LRO, they must complete the SWRCB's LRO Registration Form for the SSO Database,</p>

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Term	Definition
	<p>which is available on the SWRCB's website at the following link:  <a href="http://www.waterboards.ca.gov/water_issues/programs/sso/docs/lro_for_m.pdf">http://www.waterboards.ca.gov/water_issues/programs/sso/docs/lro_for_m.pdf</a>.</p>
<p>Monitoring and Reporting Program (MRP)</p>	<p>Establishes monitoring, record keeping, reporting and public notification requirements as part of a waste discharge requirements (WDR). In this EOP, MRP refers to Order No. WQ 2008-0002-EXEC, which is the amended MRP for WDR Order No. 2006-0003-DWQ. Order No. 2006-DWQ is defined below under WDR.</p>
<p>Monterey Regional Water Pollution Control Agency (MRWPCA)</p>	<p>MRWPCA operates a regional wastewater treatment plant, which serves the following agencies: City of Pacific Grove, City of Monterey, City of Del Rey Oaks, Seaside County Sanitation District, Sand City, Fort Ord, City of Marina, Castroville Community Services District, Moss Landing, Boronda, City of Salinas, and Monterey County.</p>
<p>OSHA</p>	<p>The Occupational Safety and Health Administration, which is part of the United States Department of Labor and was created to assure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education, and assistance.</p>
<p>Personal Protective Equipment (PPE)</p>	<p>PPE is designed to protect workers from serious workplace injuries or illnesses resulting from contact with chemical, radiological, physical, electrical, mechanical, or other workplace hazards. PPE includes a variety of equipment, devices, and garments including, but not limited to, face shields, safety glasses, hard hats, safety shoes, goggles, coveralls, gloves, vests, earplugs, and respirators.</p> <p>PPE standards are in Title 29 of the Code of Federal Regulations (CFR), Part 1910 Subpart I, and Title 8 of the California Code of Regulations (CCR) Chapter 4.</p>
<p>Private Lateral Sewage Discharge (PLSD)</p>	<p>Sewage discharges that are caused by blockages or other problems within a privately owned lateral.</p>
<p>Regional Water Quality Control Board (RWQCB)</p>	<p>There are nine (9) RWQCBs in California, which are semi-autonomous and are comprised of nine (9) part-time Board Members appointed by the Governor and confirmed by the Senate. Each RWQCB makes water quality decisions for its region, including setting standards, issuing WDRs, determining compliance with those requirements, and taking</p>

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Term	Definition
	<p>appropriate enforcement action.</p> <p>The City of Pacific Grove is located in RWQCB Region 3: Central Coast, and therefore is regulated and monitored by the Central Coast RWQCB.</p>
Sanitary Sewer Overflow (SSO)	<p>Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:</p> <ol style="list-style-type: none"> <li>1. Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;</li> <li>2. Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and</li> <li>3. Wastewater backups into buildings on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.</li> </ol> <p>Temporary storage and conveyances facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.</p>
Sanitary Sewer System (SSS)	<p>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 publicly owned treatment facility. Temporary storage and conveyances facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.</p>
Sewer System Management Plan (SSMP)	<p>A system-specific plan required by the WDR, which includes provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis, and a spill response plan that establishes procedures for immediate response to a SSO in a manner designed to minimize water quality impacts and potential nuisance conditions.</p>
Spill	<p>Generic term referring to any sewage discharge (i.e., SSO or PLSD) resulting from a failure in a sanitary sewer system, privately owned</p>

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Term	Definition
	lateral, or collection system.
Standard Operating Procedure (SOP)	A SOP is a set of written instructions that document a routine or repetitive activity followed by an organization.
State Water Resources Control Board (SWRCB)	<p>The SWRCB's mission is to ensure the highest reasonable quality for waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses. The SWRCB sets statewide policy, coordinates and supports RWQCB efforts, and reviews petitions that contest RWQCB actions. SWRCB is also solely responsible for allocating surface water rights.</p> <p>The SWRCB consists of five full-time salaried Board Members, each filling a different specialty position. Each Board Member is appointed to a four-year term by the Governor and confirmed by the Senate.</p>
Untreated or Partially Treated Wastewater	Any volume of waste discharge from the sanitary sewer system upstream of a wastewater treatment plant headworks.
Waste Discharge Requirements (WDR)	<p>WDRs regulate point discharges that are exempt pursuant to California Code of Regulations Title 27, Subsection 20090, such as sewage, and are not subject to the Federal Water Pollution Control Act. Discharges of domestic sewage or treated effluent are regulated by WDRs issued pursuant to California Code of Regulations Title 23, Division 3, Chapter 9.</p> <p>In this EOP, WDR refers to the SWRCB's Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Order No. 2006-0003-DWQ, and Monitoring and Reporting Program (MRP) No. 2006-0003-DWQ as revised by Order No. WQ 2008-0002-EXEC, which requires all federal and state agencies, municipalities, counties, districts, and other public entities, which own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California to develop and implement Sewer System Management Plans and report all SSOs to SWRCB through CIWQS.</p>

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## 5. Health and Safety Warnings

1. All SSO response activities must be conducted in a safe and efficient manner that protects City Staff, the City's contractors, and the public.
2. Employees are required to follow the City's or contractor's safety practices and procedures, whichever is more stringent. These procedures must establish guidelines in compliance with the:
  - a. Occupational Health and Safety Administration (OSHA);
  - b. California Division of Occupational Safety and Health (Cal/OSHA);
  - c. City of Pacific Grove's Illness and Injury Prevention Program (IIPP); and
  - d. City of Pacific Grove requirements and standards.
3. Multiple hazards exist in the performance of SSO response. The following are some of the more common hazards to be aware of:
  - a. Traffic in the vicinity of SSO response activities
  - b. Distracted drivers
  - c. Members of the public interested in SSO response activities
  - d. Slips, trips, and falls
  - e. Falling objects
  - f. Infections and disease
  - g. Poisonous/toxic gases
  - h. Strains and back injuries
  - i. Bites (insects, bugs, rodents, etc.)
  - j. Drowning
  - k. Noise
  - l. Weather conditions

## 6. Cautions

1. Ensure that all equipment is used correctly and as outlined in the City's SOPs.
2. Ensure that the SSO response activities are sufficiently documented through written documentation and photographs Possible equipment damage, how results can be impacted, etc.

## 7. Interferences

1. In order for the OERP and associated Emergency Operating Procedures (EOPs) to be effective, they must be used and reviewed by City Staff. Review all associated EOPs annually to ensure that they are current and applicable. Make any needed revisions as they occur, and formally update the EOPs as part of the annual review.
2. Equipment must be used according to the manufacturer's standards and to the City's SOPs in order to obtain accurate results.
3. The SSO Report submitted in CIWQS must be supported by documentation if it is to be considered accurate and defensible. Documentation for why certain response activities could not be accomplished is also imperative for reporting the SSO. Therefore, City Staff must ensure that the SSO response activities are sufficiently documented through written documentation and photographs.

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## **8. Personnel Qualifications and Responsibilities**

1. Environmental Programs Manager
  - a. Responsible for monitoring the implementation of the OERP.
2. Wastewater Field Supervisory
  - a. Responsible for the implementation of the OERP.
  - b. Responsible for training all City Staff and contractors responsible for SSO Response are trained on this EOP annually.
  - c. Responsible for managing, maintaining, and updating this EOP.
3. City Staff and Contractors Responsible for SSO Response
  - a. Required to be trained on this EOP annually.
4. Police and Fire Departments
  - a. Responsible for ensuring that their Staff is training in SSO response, mitigation, and cleanup.
  - b. Responsible for ensuring that their Staff is trained on and employs all of the health and safety requirements and precautions during SSO response, mitigation, and cleanup activities.

## **9. Equipment and Supplies**

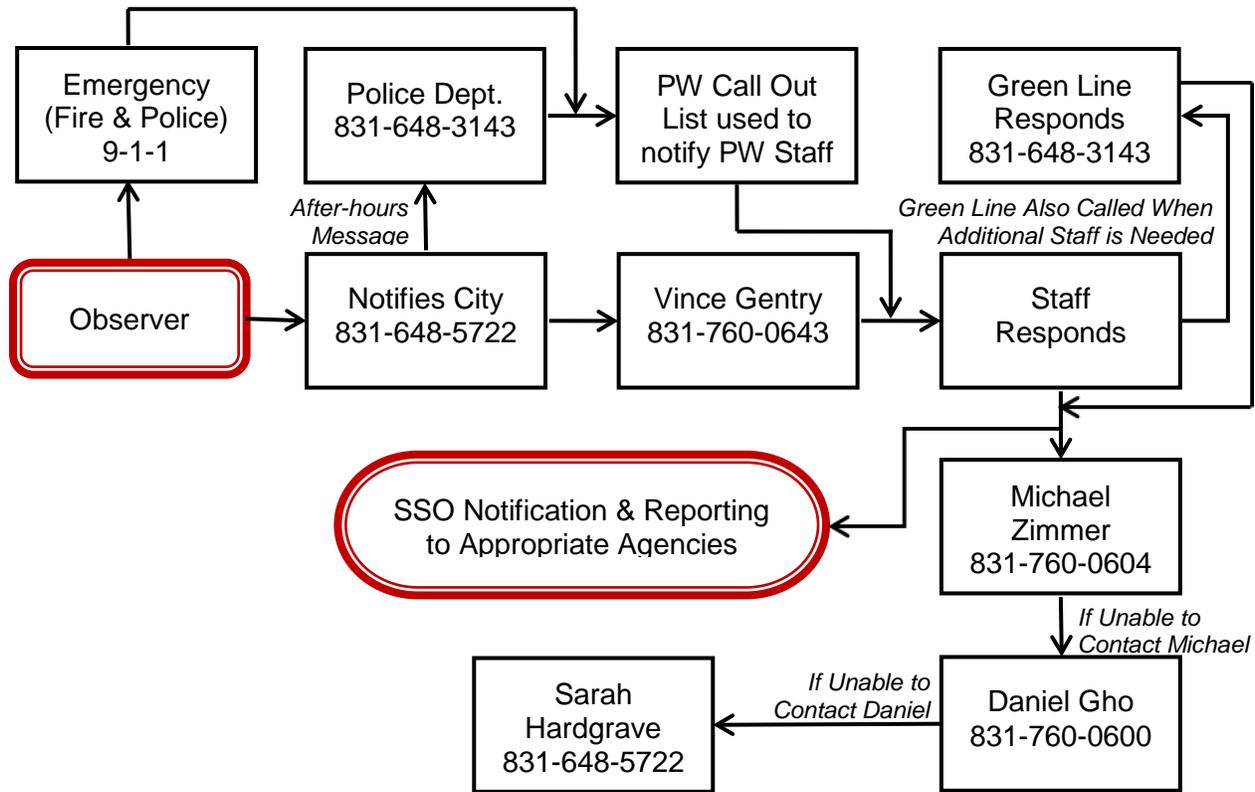
1. Personal Protective Equipment (PPE):
  - a. Gloves
  - b. Rubber Boots
  - c. Safety Glasses
  - d. Flashlights
  - e. Safety Vest
2. SSO Cleanup Equipment:
  - a. Hydrovac Truck
  - b. Sewer Bypass Pump
  - c. Bleach
  - d. Shovels
  - e. Rakes
  - f. Sandbags
  - g. Plugs
  - h. Plastic Tarps
3. The City's EOPs

## **10. Procedure**

The City's Public Works Administrative Office is open and can receive notifications of SSOs from 7:30 AM to 4:00 PM, Monday through Friday. After hours, on weekends, and on holidays, City Staff, the Police Department, and the Fire Department coordinate SSO notification efforts and City Staff and/or Green Line respond to SSOs.

Figure 1-2 illustrates the chain of command, which must be observed and followed when a SSO occurs:

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**Figure 1-2: SSO Response Chain of Command**

The guiding documents in the City's OERP consist of the activities outlined in the following nine (9) EOPs:

1. SS-EOP-01: Overflow Emergency Response Plan
2. SS-EOP-02: SSO Notification
3. SS-EOP-03: SSO Reporting
4. SS-EOP-04: SSO Traffic and Crowd Control
5. SS-EOP-05: SSO Volume Estimation
6. SS-EOP-06: SSO Mitigation and Cleanup
7. SS-EOP-07: Water Quality Monitoring and SSO Impact Assessment
8. SS-EOP-08: SSO Response Documentation and Records
9. SS-EOP-09: SSO Training Requirements

Each of these procedures gives specific direction for activities required in SSO response. City Staff is required to train on, review, and revise these procedures annually in order to ensure Staff has a thorough understanding of these EOPs and that they are useful and effective when they are needed to respond to a SSO.

### **Summary of the City's SSO Response Plan**

Specific EOPs are referenced in *italics* as a reference for each activity. SSO Response activities are discussed below in order of occurrence.

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The City will be notified of a SSO by their Staff, a local agency, or a member of the public. City Staff will confirm the SSO, and the appropriate first responders and regulatory agencies will be notified.

Associated EOPs:    *SS-EOP-02: SSO Notification*

The initial SSO response includes a service truck with traffic control equipment and equipment to cordon off the site from the public. The City depends on the Police Department to perform crowd control.

Associated EOP:     *SS-EOP-04: Traffic and Crowd Control*

City Staff takes all reasonable steps to contain sewage and to prevent sewage discharges to surface waters. Upon arrival to the SSO site, City Staff will determine the cause of the SSO and will dike or sandbag off any storm drain inlets that flow to surface water bodies. The City may use the storm drain system as a containment device if needed. When this is done, the outlet to the storm drain is blocked and the spill and wash down water are then vacuumed from the line. Equipment used may include a hydrovac truck, a service truck equipped with traffic control devices, and the necessary containment tools. Containment tools include, but are not limited to, items and tools, such as gloves, shovels, sandbags, and plastic tarps. All drain inlets shall be covered with visqueen or other non-permeable barriers. Additional resources are available through the City's contract with Green Line for Emergency Call-out Services and locally from other jurisdictions or through equipment rental agencies as the situation warrants. After the SSO is contained, Staff will work to begin removing the main stoppage with the hydrovac truck and return normal flow to the system. Cleanup of raw sewage is initiated at the same time as vacuuming up the water and any solid material.

Associated EOP:     *SS-EOP-06: SSO Mitigation and Cleanup*

Based on the location and type of SSO, City Staff respond with appropriate equipment. Upon observation of the SSO, an estimate of the SSO volume in gallons per minute will be made, the appropriate regulatory agencies will be notified of the SSO and the estimated SSO volume, and a SSO Response Field Report will be completed.

Associated EOPs:    *SS-EOP-02: SSO Notification*  
                          *SS-EOP-03: SSO Reporting*  
                          *SS-EOP-05: SSO Volume Estimation*  
                          *SS-EOP-08: SSO Response Documentation and Records*

In the event that the SSO comes into contact with surface water bodies, testing of those bodies will be completed to determine the level of contamination and the appropriate

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method of clean up. City EOPs include direction regarding regulatory notification procedures and public notification procedures when a SSO has the potential to endanger public health. The City currently takes all reasonable steps to contain sewage, prevent sewage discharges to surface waters, and minimize or correct any adverse impacts on the environment resulting from the SSO, including accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

Associated EOPs:     *SS-EOP-07: Water Quality Monitoring and SSO Impact Assessment*

The Community Development/Public Works Director, Environmental Programs Manager, and Wastewater Field Supervisory are responsible for SSO mitigation, documentation, reporting, and follow-up.

Associated EOPs:     *SS-EOP-02: SSO Notification*  
                          *SS-EOP-03: SSO Reporting*  
                          *SS-EOP-08: SSO Response Documentation and Records*

Monterey Bay National Marine Sanctuary provides assistance to the City with post-SSO monitoring in order to monitor and evaluate the impact of the SSO. In the event of a SSO that reaches surface water, Monterey Bay National Marine Sanctuary is notified immediately along with other applicable agencies. The City then utilizes the Monterey Bay National Marine Sanctuary for the service of post-SSO water quality monitoring. The City will also provide any necessary support, equipment, or Staff as requested to assist in the water quality monitoring.

Associated EOP:     *SS-EOP-07: Water Quality Monitoring and SSO Impact Assessment*

After the City responds to and mitigates a SSO, the Community Development/Public Works Director, Environmental Programs Manager, and Wastewater Field Supervisory are responsible for reviewing the City's response to the SSO and the utilization and effectiveness of the City's EOPs. This evaluation must determine whether the EOPs are effective or if any revisions or updates are needed to improve the ease and adequacy of implementation. City Staff and contract staff involved in SSO response activities must be trained on any revised or updated EOPs. City Staff is also required to train on, review, and revise these procedures annually in order to ensure Staff has a thorough understanding of these EOPs and that they are useful and effective when they are needed to respond to a SSO.

Associated EOP:     *SS-EOP-09: SSO Training Requirements*

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## **11. Data and Records Management**

1. Individual SSO records shall be maintained for a minimum of five (5) years from the date of the SSO. This period may be extended when requested by a RWQCB Executive Officer.
2. All records shall be made available for review upon SWRCB or RWQCB Staff's request.
3. SSO records, which must be retained include, but are not limited to:
  - a. Record of Certified report, as submitted to CIWQS;
  - b. All original recordings for continuous monitoring instrumentation;
  - c. Service call records and complaint logs of calls received;
  - d. SSO calls;
  - e. SSO records;
  - f. Steps that have been and will be taken to prevent the SSO from recurring and a schedule to implement those steps;
  - g. Work orders, work completed, and any other maintenance records from the previous five (5) years which are associated with responses and investigations of system problems related to SSOs;
  - h. A list and description of complaints from customers or others from the previous five (5) years; and
  - i. Documentation of performance and implementation measures for the previous five (5) years.
4. If water quality samples are required as a result of any SSO, records of monitoring information shall include the:
  - a. Date, exact place, and time of sampling measurements;
  - b. Individual(s) who performed the sampling or measurements;
  - c. Date(s) analyses were performed;
  - d. Individuals who performed the analyses;
  - e. Analytical technique or method used; and
  - f. Results of such analyses.

## **12. Quality Control and Quality Assurance**

1. The Wastewater Field Supervisory is responsible for the implementation and review of the programs and procedures contained in the OERP.
2. The Environmental Programs Manager is responsible for monitoring the implementation and review of the programs and procedures contained in the OERP.
3. The Community Development/Public Works Director is responsible for ensuring that the OERP is being maintained, implemented, and trained on by City Staff.

## **13. References**

1. The City's EOPs
2. WDR: Order No. 2006-0003-DWQ
3. Adopted Amending MRP for the WDR: Order No. WQ 2008-0002-EXEC

## **14. Attachments**

1. This section is not applicable to this EOP

 <p><b>Standard Operating Procedure</b></p> <p>City of Pacific Grove</p>		<p>Document No:</p> <p style="text-align: center;">SS-EOP-02</p>
<p>Title:</p> <p style="text-align: center;">SSO NOTIFICATION</p>		<p>Revision:</p> <p style="text-align: center;">0</p>
<p>Issued by:</p>  <p>Michael Zimmer Community Development/Public Works Director, City of Pacific Grove</p>	<p>Prepared by:</p> <p>Anastasia Mylonas Engineering Associate, Wallace Group</p>	<p>Page:</p> <p style="text-align: center;">1 of 18</p> <p>Effective Date:</p> <p style="text-align: center;">6/19/2013</p>

**1. Purpose**

The purpose of the SSO Notification EOP is to ensure proper notification of sanitary sewer overflows (SSOs), which occur in the City of Pacific Grove's (City's) sanitary sewer collection system, in order to protect public and environmental health.

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## 2. Location

A SSO, which requires the notification procedures included in this EOP, can occur anywhere in the City's sanitary sewer collection system. Figure 2-1 illustrates the City service area in which the sanitary sewer collection system is located.



Figure 2-1: City Service Area

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**3. Scope and Availability**

The State Water Resources Control Board (SWRCB) Monitoring and Reporting Program (MRP) No. 2006-0003-DWQ as revised by Order No. WQ 2008-0002-EXEC for Order No. 2006-0003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems," establishes SSO notification requirements for all federal and state agencies, municipalities, counties, districts, and other public entities, which own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California.

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#### 4. Definitions

Term	Definition
Business Hours	The City Public Works Department Office's business hours are 7:30 AM – 4:00 PM, Monday through Friday, excluding legal holidays.
California Department of Fish and Wildlife (CDFW)	CDFW (formerly "Department of Fish and Game") maintains native fish, wildlife, plant species and natural communities for their intrinsic and ecological value and their benefits to people. This includes habitat protection and maintenance in a sufficient amount and quality to ensure the survival of all species and natural communities.
California Emergency Management Agency (Cal EMA)	<p>Cal EMA was established on January 1, 2009 and merged the duties, powers, and responsibilities of the former California Governor's Office of Emergency Services (OES) with those of the California Governor's Office of Homeland Security.</p> <p>Cal EMA is responsible for the coordination of overall state agency response to major disasters in support of local government. The Agency is responsible for assuring the state's readiness to respond to and recover from hazards – natural, manmade, war-caused emergencies and disasters – and for assisting local governments in their emergency preparedness, response, recover, and hazard mitigation efforts. Sanitary sewer overflows are one of these hazards.</p>
California Integrated Water Quality System (CIWQS)	The online reporting system developed, hosted, and maintained by the SWRCB for compliance with the WDRs.
Category 1 SSO	<p>All discharges of sewage resulting from a failure in City's sanitary sewer system that:</p> <ol style="list-style-type: none"> <li>1. Equal or exceed 1000 gallons, or</li> <li>2. Result in a discharge to a drainage channel and/or surface water; or</li> <li>3. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.</li> </ol>
Category 2 SSO	All other discharges of sewage resulting from a failure in City's sanitary sewer system, which are not Category 1 SSOs.
City of Pacific	The City operates and maintains a sanitary sewer collection system, which conveys sewage to the wastewater treatment plant operated and

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<b>Term</b>	<b>Definition</b>
Grove (City)	maintained by Monterey Regional Water Pollution Control Agency (MRWPCA).
Collection System	Generic term for any system of pipes, sewer lines, and lift stations used to convey wastewater to a treatment facility.
Drainage Channel	A man-made canal used to transport stormwater as part of a municipal separate storm sewer system, or an intermittent or perennial stream bed.
Data Submitter	A Data Submitter is any individual authorized by the LRO to enter data into CIWQS, the online SSO database, on behalf of the City. In order for a person to be officially designated as a Data Submitter, they must complete the SWRCB's Data Submitter Registration Form for the SSO Database, which must be approved and signed by the City's LRO and is available on the SWRCB's website at the following link: <a href="http://www.waterboards.ca.gov/water_issues/programs/ss0/docs/datasubmitter_form.pdf">http://www.waterboards.ca.gov/water_issues/programs/ss0/docs/datasubmitter_form.pdf</a> .
Emergency Operating Procedure (EOP)	An EOP is a form of a standard operating procedure (SOP) for an activity associated with an emergency situation. SOP is defined below.
Environmental Protection Agency (EPA)	United States EPA's mission is to protect human health and the environment. EPA works to accomplish this mission through writing and enforcing federal regulations and policies and identifying, initiating national efforts to reduce environmental risk are based on the best available scientific information and identifying measurable environmental and human health outcomes and how EPA plans to achieve those results.
Green Line	Green Line is contracted by the City to provide collection system hydroflush cleaning and tree root removal services and emergency Call-out services.
Lateral	The segment of pipe which connects a home or building to a sewer main, which is usually located beneath a street or easement.
Legally Responsible Official (LRO)	A LRO is the person designated for the City as either a principal executive officer or ranking elected official or a duly authorized representative of that person. An individual is a duly authorized representative if: <ol style="list-style-type: none"> <li>1. The authorization is made in writing by a LRO; and</li> </ol>

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Term	Definition
	<p>2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.</p>
	<p>In order for a person to be officially designated as a LRO, they must complete the SWRCB's LRO Registration Form for the SSO Database, which is available on the SWRCB's website at the following link: <a href="http://www.waterboards.ca.gov/water_issues/programs/ssso/docs/lro_for_m.pdf">http://www.waterboards.ca.gov/water_issues/programs/ssso/docs/lro_for_m.pdf</a>.</p>
<p>Monitoring and Reporting Program (MRP)</p>	<p>Establishes monitoring, record keeping, reporting and public notification requirements as part of a waste discharge requirements (WDR). In this EOP, MRP refers to Order No. WQ 2008-0002-EXEC, which is the amended MRP for WDR Order No. 2006-0003-DWQ. Order No. 2006-DWQ is defined below under WDR.</p>
<p>Monterey County (Co.) Environmental Health Services (EHS)</p>	<p>Monterey Co. EHS is a division of Monterey Co. Public Health Department and prevents exposure to toxic substances, diseases, unsanitary conditions, and other environmental hazards through education and enforcement. Programs include hazardous materials management, food safety, water quality, recreational water and swimming pool monitoring, and solid waste facility oversight.</p>
<p>Monterey County (Co.) Office of Emergency Services (OES)</p>	<p>Monterey Co. OES is committed to serving the public before, during, and after times of emergency by promoting effective coordination between agencies, and encouraging preparedness of the public and organizations involved in emergency response. Monterey Co. OES, in coordination with local, state, and emergency response organizations, works continuously to better prepare and respond to any disaster the community may face.</p>
<p>Monterey County Public Health Department</p>	<p>Monterey Co. Public Health Department improves and maintains community health by identifying health issues, preventing disease and injury, influencing policy development, and promoting healthy behaviors through leadership, collaborative partnerships, education, direct services, surveillance, and case management and payment for eligible indigent medical care.</p>
<p>Monterey Regional Water Pollution Control Agency (MRWPCA)</p>	<p>MRWPCA operates a regional wastewater treatment plant, which serves the following agencies: City of Pacific Grove, City of Monterey, City of Del Rey Oaks, Seaside County Sanitation District, Sand City, Fort Ord, City of Marina, Castroville Community Services District, Moss Landing, Boronda, City of Salinas, and Monterey County.</p>

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Term	Definition
National Oceanic and Atmospheric Administration (NOAA)	NOAA is a science-based federal agency within the Department of Commerce with regulatory, operational, and information service responsibilities with a presence in every state and United States territories.
Private Lateral Sewage Discharge (PLSD)	Sewage discharges that are caused by blockages or other problems within a privately owned lateral.
Regional Water Quality Control Board (RWQCB)	<p>There are nine (9) RWQCBs in California, which are semi-autonomous and are comprised of nine (9) part-time Board Members appointed by the Governor and confirmed by the Senate. Each RWQCB makes water quality decisions for its region, including setting standards, issuing WDRs, determining compliance with those requirements, and taking appropriate enforcement action.</p> <p>The City of Pacific Grove is located in RWQCB Region 3: Central Coast, and therefore is regulated and monitored by the Central Coast RWQCB.</p>
Sanitary Sewer Overflow (SSO)	<p>Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:</p> <ol style="list-style-type: none"> <li>1. Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;</li> <li>2. Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and</li> <li>3. Wastewater backups into buildings on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.</li> </ol> <p>Temporary storage and conveyances facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.</p>
Sanitary Sewer System	<p>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 publicly owned treatment facility.</p> <p>Temporary storage and conveyances facilities (such as vaults,</p>

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Term	Definition
	temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.
Sewer System Management Plan (SSMP)	A system-specific plan required by the WDR, which includes provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis, and a spill response plan that establishes procedures for immediate response to a SSO in a manner designed to minimize water quality impacts and potential nuisance conditions.
Spill	Generic term referring to any sewage discharge (i.e., SSO or PLSD) resulting from a failure in a sanitary sewer system, privately owned lateral, or collection system.
Standard Operating Procedure (SOP)	A SOP is a set of written instructions that document a routine or repetitive activity followed by an organization.
State Water Resources Control Board (SWRCB)	<p>The SWRCB's mission is to ensure the highest reasonable quality for waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses. The SWRCB sets statewide policy, coordinates and supports RWQCB efforts, and reviews petitions that contest RWQCB actions. SWRCB is also solely responsible for allocating surface water rights.</p> <p>The SWRCB consists of five full-time salaried Board Members, each filling a different specialty position. Each Board Member is appointed to a four-year term by the Governor and confirmed by the Senate.</p>
Untreated or Partially Treated Wastewater	Any volume of waste discharge from the sanitary sewer system upstream of a wastewater treatment plant headworks.
Waste Discharge Requirements (WDR)	<p>WDRs regulate point discharges that are exempt pursuant to California Code of Regulations Title 27, Subsection 20090, such as sewage, and are not subject to the Federal Water Pollution Control Act. Discharges of domestic sewage or treated effluent are regulated by WDRs issued pursuant to California Code of Regulations Title 23, Division 3, Chapter 9.</p> <p>In this EOP, WDR refers to the SWRCB's Statewide General Waste</p>

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**Term****Definition**

Discharge Requirements for Sanitary Sewer Systems, Order No. 2006-0003-DWQ, and Monitoring and Reporting Program (MRP) No. 2006-0003-DWQ as revised by Order No. WQ 2008-0002-EXEC, which requires all federal and state agencies, municipalities, counties, districts, and other public entities, which own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California to develop and implement Sewer System Management Plans and report all SSOs to SWRCB through CIWQS.

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**5. Health and Safety Warnings**

1. This section is not applicable to this EOP.

**6. Cautions**

1. This section is not applicable to this EOP.

**7. Interferences**

1. This section is not applicable to this EOP.

**8. Personnel Qualifications and Responsibilities**

1. Community Development/Public Works Director
  - a. Responsible for overseeing all of the activities associated with this EOP.
  - b. Required to be trained on this EOP annually.
2. Environmental Programs Manager
  - a. Responsible for assisting the Wastewater Field Supervisor with notification information and records.
  - b. Responsible for ensuring that the Wastewater Field Supervisor is training all City Staff and contractors responsible for SSO response on this EOP.
  - c. Required to be trained on this EOP annually.
3. Wastewater Field Supervisor
  - a. Responsible for maintaining and updating this EOP.
  - b. Responsible for training all City Staff and contractors responsible, who are in a position, which could require them to make the notifications outlined in this EOP.
4. Public Works Administrator
  - a. Responsible for processing the SSO notification and the Wastewater Field Supervisory through iWorQ.
  - b. Responsible for assisting the Wastewater Field Supervisor and Environmental Programs Manager with notification information and records.
  - c. Required to be trained on this EOP annually.
5. City Staff and Contractors Responsible for SSO Response
  - a. Required to be trained on this EOP annually.
6. Monterey County Dispatch Center
  - a. Responsible for ensuring that their Staff is trained on what coordination with the City is necessary for the notification of and response to a SSO.

**9. Equipment and Supplies**

1. Phone
2. Pen
3. Computer
4. Public Agency Call-out List
5. Notification List
6. SSO Response Field Checklist (SS-EOP-06)

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## 10. Procedure

### Notifications for City Response to SSOs

1. SSO Discovered by a Member of the Public
  - a. Reported to City
    - i. During Normal Business Hours:
      1. The informant calls City at (831) 648-5722 and informs the Public Works Administrator, Lawrence (Stoney) Bangert, of the SSO.
      2. Stoney asks the informant for their name and contact information, the location of the SSO, and the time at which the informant first saw the SSO or smelled sewage.
      3. Stoney calls Vince Gentry, the Wastewater Field Supervisor, at (831) 760-0643 or the next available Public Works Staff to investigate the situation and records this information and the date and time of the phone call in iWorQ, which automatically sends an email to Vince.
      4. The Vince or the first responder goes to the SSO location and confirms that a SSO is occurring. If the SSO is occurring, the first responder initiates the SSO Mitigation and Cleanup EOP (SS-EOP-06) and the "Notify Regulatory Agencies of the SSO" section of this EOP on page 12. If a SSO is not occurring, the first responder calls Stoney and informs him of the situation in order to assist with any more notifications.
      5. If City Staff needs assistance in responding to the SSO, Vince or the first responder calls County Com at (831) 647-7911, which contacts Dispatch for the Police and Fire Departments.
      6. If City Staff needs further assistance, Vince or the first responder calls Green Line at (831) 422-3279 per the City's contract with Green Line for Emergency Call-out Services.
    - ii. After Normal Business Hours:
      1. The informant can call the City Public Works Department at (805) 595-2664, and a message recording will direct the informant to call City Police Department at (831) 648-3143.
      2. If the Police Department responds, they are responsible for contacting City Staff in the order and with the contact information provided in Attachment 1 of this EOP.
      3. If the Police Department does not respond to the SSO, but the Fire Department does respond to the SSO, the Fire Department is responsible for contacting City Staff in the order and with the contact information provided above in 1.a.ii.2.a.
      4. If City Staff needs assistance in responding to the SSO, Green Line is called at (831) 422-3279 per the City's contract with Green Line for Emergency Call-out Services.
      5. The first responder calls Michael Zimmer at (831) 760-0604 and notifies him of the SSO.

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6. If Mike Zimmer cannot be reached, Daniel Gho is called at (831) 760-0600 and notified of the SSO.
  7. If Daniel Gho cannot be reached, Sarah Hardgrave is called at (831) 333-6054 and notified of the SSO.
  8. If Vince is not responding to the SSO, the first responder calls him at (831) 760-0643 to notify him of the SSO.
- b. Reported to the Sherriff or Fire Department
- i. During Normal Business Hours:
    1. The informant calls 9-1-1 and speaks with the Monterey County Dispatch Center. The Monterey County Dispatch Center documents the preliminary SSO information, such as SSO start time and location and informant name and contact information.
    2. The Monterey County Dispatch Center then contacts the Police and Fire Departments and informs them of the SSO.
    3. If the Police Department responds, they are responsible for contacting Vince Gentry at (831) 760-0643 or the City's Public Works Office at (831) 648-5722.
    4. If the Police Department does not respond to the SSO, but the Fire Department does respond to the SSO, the Fire Department is responsible for contacting Vince Gentry at (831) 760-0643 or the City's Public Works Office at (831) 648-5722.
    5. Vince or the first responder goes to the SSO location and confirms that a SSO is occurring. If the SSO is occurring, Vince or the first responder initiates the SSO Mitigation and Cleanup EOP (SS-EOP-06) and the "Notify Regulatory Agencies of the SSO" section of this EOP on page 12. Vince or the first responder calls Stoney and informs him of the situation in order to assist with any more notifications.
    6. If City Staff needs assistance with the SSO Response, they will ask the responding Police and/or Fire Department Staff to assist.
    7. If City Staff needs further assistance or is unable to respond to the SSO when notification is received from the Police or Fire Department, Vince or the first responder calls Green Line at (831) 422-3279 per the City's contract with Green Line for Emergency Call-out Services.
    8. Vince or the first responder calls Michael Zimmer at (831) 760-0604 and notifies him of the SSO.
  - ii. After Normal Business Hours:
    1. The informant can call the City Public Works Department at (805) 595-2664, and a message recording will direct the informant to call City Police Department at (831) 648-3143.
    2. If the Police Department responds, they are responsible for contacting City Staff in the order and with the contact information provided in Attachment 1 of this EOP.

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3. If the Police Department does not respond to the SSO, but the Fire Department does respond to the SSO, the Fire Department is responsible for contacting City Staff in the order and with the contact information provided above in 1.b.ii.2.a.
  4. If City Staff needs assistance in responding to the SSO, Green Line is called at (831) 422-3279 per the City's contract with Green Line for Emergency Call-out Services.
  5. The first responder calls Michael Zimmer at (831) 760-0604 and notifies him of the SSO.
  6. If Mike Zimmer cannot be reached, Daniel Gho is called at (831) 760-0600 and notified of the SSO.
  7. If Daniel Gho cannot be reached, Sarah Hardgrave is called at (831) 333-6054 and notified of the SSO.
  8. If Vince is not responding to the SSO, the first responder calls him at (831) 760-0643 to notify him of the SSO.
2. SSO Discovered by City Public Works Staff
- a. During Normal Business Hours:
    - i. City Staff calls Vince Gentry at (831) 760-0643 and informs him of the SSO.
    - ii. City Staff initiates the SSO Mitigation and Cleanup EOP (SS-EOP-06) and the "Notify Regulatory Agencies of the SSO" section of this EOP on page 12.
    - iii. Vince or the first responder calls Stoney at (831) 648-5722 and informs him of the SSO in order to assist with any notifications.
    - iv. Stoney records this information and the date and time of the phone call in iWorQ.
    - v. If City Staff needs assistance in responding to the SSO, Vince calls County Com at (831) 647-7911, which contacts Dispatch for the Police and Fire Departments.
    - vi. If City Staff needs further assistance, Vince calls Green Line at (831) 422-3279 per the City's contract with Green Line for Emergency Call-out Services.
    - vii. Michael Zimmer is called at (831) 760-0604 and notified of the SSO.
  - b. After Normal Business Hours:
    - i. If City Staff discovers the SSO, they contacting City Staff in the order and with the contact information provided Attachment 1 of this EOP.
    - ii. If City Staff needs assistance in responding to the SSO, Green Line is called at (831) 422-3279 per the City's contract with Green Line for Emergency Call-out Services.
    - iii. The first responder calls Michael Zimmer at (831) 760-0604 and notifies him of the SSO.
    - iv. If Mike Zimmer cannot be reached, Daniel Gho is called at (831) 760-0600 and notified of the SSO.
    - v. If Daniel Gho cannot be reached, Sarah Hardgrave is called at (831) 333-6054 and notified of the SSO.
    - vi. If Vince is not responding to the SSO, the first responder calls him at (831) 760-0643 to notify him of the SSO.

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### 3. SSO Discovered by the Police or Fire Department

#### a. During Normal Business Hours:

- i. If the Police Department responds, they are responsible for contacting Vince Gentry at (831) 760-0643 or the City's Public Works Office at (831) 648-5722.
- ii. If the Police Department does not respond to the SSO, but the Fire Department does respond to the SSO, the Fire Department is responsible for contacting Vince Gentry at (831) 760-0643 or the City's Public Works Office at (831) 648-5722.
- iii. Vince or the first responder goes to the SSO location and confirms that a SSO is occurring. If the SSO is occurring, Vince or the first responder initiates the SSO Mitigation and Cleanup EOP (SS-EOP-06) and the "Notify Regulatory Agencies of the SSO" section of this EOP on page 12. Vince calls Stoney and informs him of the situation in order to assist with any more notifications.
- iv. If City Staff needs assistance with the SSO Response, they will ask the responding Police and/or Fire Department Staff to assist.
- v. If City Staff needs further assistance or is unable to respond to the SSO when notification is received from the Police or Fire Department, Vince or the first responder calls Green Line at (831) 422-3279 per the City's contract with Green Line for Emergency Call-out Services.
- vi. Michael Zimmer is called at (831) 760-0604 and notified of the SSO.

#### b. After Normal Business Hours:

- i. If the Police Department responds, they are responsible for contacting City Staff in the order and with the contact information provided in Attachment 1 of this EOP.
- ii. If the Fire Department discovers the SSO, the Fire Department is responsible for contacting City Staff in the order and with the contact information provided above in 3.b.i.1.
- iii. If City Staff needs assistance in responding to the SSO, Green Line is called at (831) 422-3279 per the City's contract with Green Line for Emergency Call-out Services.
- iv. The first responder calls Michael Zimmer at (831) 760-0604 and notifies him of the SSO.
- v. If Mike Zimmer cannot be reached, Daniel Gho is called at (831) 760-0600 and notified of the SSO.
- vi. If Daniel Gho cannot be reached, Sarah Hardgrave is called at (831) 333-6054 and notified of the SSO.
- vii. If Vince is not responding to the SSO, the first responder calls him at (831) 760-0643 to notify him of the SSO.

### **Notify Regulatory Agencies of the SSO**

1. Attachment 2 of this EOP provides a summary table of which agencies to call and the required notification deadlines for each SSO category and each agency's contact information.
2. The details of the required notifications are provided below:

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- a. For any discharges of sewage that results in a discharge to a drainage channel or a surface water, City shall, as soon as possible, but no later than two (2) hours after becoming aware of the discharge, notify:

<b>Agency</b>	<b>Contact Information</b>	
California Emergency Management Agency	Office:	(800) 852-7550
Monterey County Office of Emergency Services	Office:	(831) 796-1900
Monterey County Environmental Health	Office:	(800) 253-2687
Central Coast Regional Water Quality Control Board	Office: Fax:	(805) 549-3147 (805) 543-0397
California Department of Fish and Wildlife	Office:	(831) 649-2817
United States Coast Guard	Office:	(831) 647-7300
Monterey Bay National Marine Sanctuary	Office: Emergency Pager:	(831) 647-4217 (831) 236-6797
National Oceanic and Atmospheric Administration	Office:	(831) 902-2778
MRWPCA	Office: <u>After Hours</u> Office: Cell:	(831) 422-1001 (831) 372-3367 (831) 883-6166 (831) 238-4429
Monterey Bay Aquarium <sup>1</sup>	Office: Cell: <u>Back-up</u> Office:	(831) 648-4974 (831) 917-3741 (831) 648-4959
Hopkins Marine Life Refuge <sup>1</sup>	Office:	(831) 655-6245

<sup>1</sup> Only call the Monterey Bay Aquarium (Roger Phillips, Director of Applied Research, or the back-up, Kelleen Harris) and Hopkins Marine Life Refuge (Freya Sommer) when the SSO is in the proximity of their intakes.

- b. As soon as possible, but no later than twenty-four (24) hours after becoming aware of a discharge to a drainage channel or a surface water, City shall submit to the Central Coast Regional Water Quality Control Board a

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certification that the State Office of Emergency Services, which is now Cal EMA, and the local health officer or directors of environmental health with jurisdiction over the affected water bodies have been notified of the discharge.

- c. The City should contact the following agencies for a Category 1 SSO, which does not result in a discharge to a drainage channel or a surface water, within two (2) hours:

Agency	Contact Information	
California Emergency Management Agency	Office:	(800) 852-7550
Monterey County Office of Emergency Services	Office:	(831) 796-1900
Monterey County Environmental Health Services	Office:	(800) 253-2687
Central Coast Regional Water Quality Control Board	Office: Fax:	(805) 549-3147 (805) 543-0397
California Department of Fish and Wildlife	Office:	(831) 649-2817
MRWPCA	Office:  <u>After Hours</u> Office: Cell:	(831) 422-1001 (831) 372-3367 (831) 883-6166 (831) 238-4429

- d. As soon as possible, but no later than twenty-four (24) hours after becoming aware of a Category 1 SSO, which does not result in a discharge to a drainage channel or a surface water, the City should submit to the Central Coast Regional Water Quality Control Board a certification that the State Office of Emergency Services, which is now Cal EMA, and the local health officer or directors of environmental health with jurisdiction over the affected water bodies have been notified of the discharge.
- e. The City should contact the following agencies for a Category 2 SSO within twenty-four (24) hours:

Agency	Contact Information	
California Emergency Management Agency	Office:	(800) 852-7550
Monterey County Environmental Health Services	Office:	(800) 253-2687

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Central Coast Regional Water Quality Control Board	Office:	(805) 549-3147
	Fax:	(805) 543-0397

- f. For a PLSD, the City may notify the following agencies within twenty-four (24) hours:

Agency	Contact Information	
Monterey County Environmental Health Services	Office:	(800) 253-2687
Central Coast Regional Water Quality Control Board	Office:	(805) 549-3147
	Fax:	(805) 543-0397

3. When the Central Coast RWQCB is notified of a SSO, the Wastewater Field Supervisor must follow-up with an email to RWQCB Staff, Sheila Soderberg, at [ssoderberg@waterboards.ca.gov](mailto:ssoderberg@waterboards.ca.gov) to document the phone and/or fax notification initially made to the RWQCB.
4. Any notifications made must be recorded on page 4 of the SSO Response Field Checklist (SS-EOP-06).

## 11. Data and Records Management

1. SSO Notification Information
  - a. If City Public Works is notified directly, Stoney is responsible for documenting the date and time the notification was made and the name and contact information of the person making the notification.
  - b. If 9-1-1 is notified, Dispatch is responsible for documenting the date and time the notification was made and the name and contact information of the person making the notification.
    - i. The Wastewater Field Supervisor, Vince, is responsible for acquiring this information from Dispatch and recoding this information on page 4 of the SSO Response Field Checklist (SS-EOP-06).
2. Agency Notification Information
  - a. The First Responder is responsible for documenting the date, time, and name of the person contacted for each agency notification.
  - b. This information must be on page 4 of the SSO Response Field Checklist (SS-EOP-06).
3. OES Control Number
  - a. The Control Number provided by Cal EMA is the OES Control Number.
  - b. The First Responder is responsible for recording the OES number when Cal EMA is notified of a SSO.
  - c. This information must be on page 4 of the SSO Response Field Checklist (SS-EOP-06).

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**12. Quality Control and Quality Assurance**

1. The Wastewater Field Supervisor is responsible for reviewing all notification information and records.
2. The information documented during this process is reported in a Draft SSO Report, which is described in SS-EOP-03, SSO Reporting, and is reviewed by the LRO at that time.

**13. References**

1. SS-EOP-03: SSO Reporting
2. SS-EOP-06: SSO Mitigation and Cleanup
3. Adopted Amended MRP for the WDR: Order No. WQ 2008-0002-EXEC

**14. Attachments**

1. Public Agency Call-out List
2. Notification List

 <p><b>Standard Operating Procedure</b></p> <p>City of Pacific Grove</p>		<p>Document No.:</p> <p style="text-align: center;">SS-EOP-02</p> <p>Attachment No.: 1</p>
<p>Title:</p> <p style="text-align: center;"><b>SSO NOTIFICATION ATTACHMENT 1: Notification List</b></p>		<p>Revision:</p> <p style="text-align: center;">0</p>
<p>Issued by:</p>  <p>Michael Zimmer Community Development/Public Works Director, City of Pacific Grove</p>	<p>Prepared by:</p> <p>Anastasia Mylonas Engineering Associate, Wallace Group</p>	<p>Page:</p> <p style="text-align: center;">1 of 3</p> <p>Effective Date:</p> <p style="text-align: center;">6/19/2013</p>

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SSO Category		Agency	Contact Information		Call Within
1	Discharge to Surface Water or Drainage Channel	Cal EMA	Office:	(800) 852-7550	2 Hours
		Monterey Co. OES	Office:	(831) 796-1900	2 Hours
		Monterey Co. EHS	Office:	(800) 253-2687	2 Hours
		Central Coast RWQCB	Office: Fax:	(805) 549-3147 (805) 543-0397	2 Hours
		CDFW	Office:	(831) 649-2817	2 Hours
		U.S. Coast Guard	Office:	(831) 647-7300	24 Hours
		Monterey Bay National Marine Sanctuary	Office: Emergency Pager:	(831) 647-4217 (831) 236-6797	24 Hours
		NOAA	Office:	(831) 902-2778	24 Hours
		MRWPCA	Office: <u>After Hours</u> Office: Cell:	(831) 422-1001 (831) 372-3367 (831) 883-6166 (831) 238-4429	24 Hours
		Monterey Bay Aquarium <sup>1</sup>	Office: Cell: <u>Back-up</u> Office:	(831) 648-4974 (831) 917-3741 (831) 648-4959	24 Hours
	Hopkins Marine Life Refuge <sup>1</sup>	Office:	(831) 655-6245	24 Hours	
	1000 gallons or More and <b>NOT</b> Discharged to a Surface Water or Drainage Channel	Cal EMA	Office:	(800) 852-7550	2 Hours
		Monterey Co. OES	Office:	(831) 796-1900	2 Hours
		Monterey Co. EHS	Office:	(800) 253-2687	2 Hours
		Central Coast RWQCB	Office: Fax:	(805) 549-3147 (805) 543-0397	2 Hours
		CDFW	Office:	(831) 649-2817	2 Hours
		MRWPCA	Office: <u>After Hours</u> Office: Cell:	(831) 422-1001 (831) 372-3367 (831) 883-6166 (831) 238-4429	24 Hours

<sup>1</sup>Only call the Monterey Bay Aquarium (Roger Phillips, Director of Applied Research, or the back-up, Kelleen Harris) and Hopkins Marine Life Refuge (Freya Sommer) when the SSO is in the proximity of their intakes.

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<b>SSO Category</b>	<b>Agency</b>	<b>Contact Information</b>	<b>Call Within</b>	<b>SSO Category</b>
2	Cal EMA	Office:	(800) 852-7550	24 Hours
	Monterey Co. EHS	Office:	(800) 253-2687	24 Hours
	Central Coast RWQCB	Office: Fax:	(805) 549-3147 (805) 543-0397	24 Hours
PLSD	Monterey Co. EHS	Office:	(800) 253-2687	24 Hours
	Central Coast RWQCB	Office: Fax:	(805) 549-3147 (805) 543-0397	24 Hours

 <p><b>Standard Operating Procedure</b></p> <p>City of Pacific Grove</p>		<p>Document No.:</p> <p style="text-align: center;">SS-EOP-02</p> <p>Attachment No.: 2</p>
<p>Title:</p> <p style="text-align: center;">SSO NOTIFICATION ATTACHMENT 2: Public Works Call-out List</p>		<p>Revision:</p> <p style="text-align: center;">0</p>
<p>Issued by:</p>  <p>Michael Zimmer Community Development/Public Works Director, City of Pacific Grove</p>	<p>Prepared by:</p> <p>Anastasia Mylonas Engineering Associate, Wallace Group</p>	<p>Page:</p> <p style="text-align: center;">1 of 4</p> <p>Effective Date:</p> <p style="text-align: center;">6/19/2013</p>

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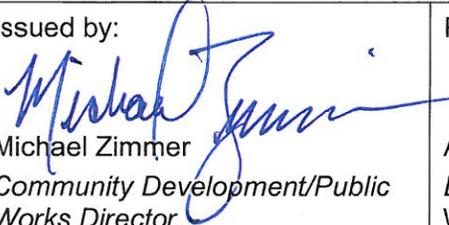
<b>Name</b>	<b>Title</b>	<b>City Phone No.</b>	<b>Confidential Contact Info.</b>	<b>Class B License to Operate Sewer Truck</b>	<b>Residence</b>	<b>Notes</b>
Roque Pinheiro	Buildings & Grounds Supervisor	(831) 760-0646	(831) 375-5501 (831) 238-2662	Yes	Pacific Grove	
Joe Vital	Streets Supervisor	(831) 760-0647 (831) 901-9528	(831) 646-3134	Yes	Pacific Grove	
Mike Condon	Maintenance Worker II		(831) 646-5473	Yes	Pacific Grove	
Emilio Alcaraz	Safety Supervisor	(831) 760-0645	(831) 375-9960	Yes	Monterey	
Sal Di Franco	Maintenance Worker II		(831) 899-1135	Yes	Seaside	
Sam Crosby	Maintenance Worker II		(831) 717-4978	No	Marina	Can help with sewer truck.
Franz Limper	Maintenance Worker I		(831) 632-0310	No	Castroville	Can help with sewer truck.
Arturo Navarro	Maintenance Worker I		(831) 687-8090	No	Salinas	Can help with sewer truck.

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<b>Name</b>	<b>Title</b>	<b>City Phone No.</b>	<b>Confidential Contact Info.</b>	<b>Class B License to Operate Sewer Truck</b>	<b>Residence</b>	<b>Notes</b>
Vince Gentry	Wastewater Field Supervisor	(831) 760-0643	(831) 484-9839	Yes	Salinas	
Mike Aliotti	Senior Maintenance Worker	(831) 760-0648	(831) 455-8209	Yes	Salinas	
John Goss	Senior Maintenance Worker		(831) 901-9535 (831) 659-1221	Yes	Carmel Valley	
Michael Zimmer	Community Development/ Public Works Director	(831) 760-0604		No	Pacific Grove	Always call Michael to notify him of a SSO.
Daniel Gho	Public Works Manager	(831) 760-0600		No	Hollister	Call if unable to contact Michael Zimmer while on City business, vacation, or nights.
Sara Hardgrave	Environmental Programs Manager	(831) 648-5722 ext. 202	(831) 333-6054	No	Marina	Call if unable to contact Michael Zimmer while on City business, vacation, or nights.

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<b>Name</b>	<b>Title</b>	<b>City Phone No.</b>	<b>Confidential Contact Info.</b>	<b>Class B License to Operate Sewer Truck</b>	<b>Residence</b>	<b>Notes</b>
Green Line	<i>Contracted Emergency Call-out Services</i>	(831) 422-3279 (831) 422-2298	N/A	Yes	30 Minute Response Time	Call if unable to contact any City Staff during an emergency or if further assistance is needed. Green Line is to clear and clean the affected areas.

 <p><b>Standard Operating Procedure</b></p> <p>City of Pacific Grove</p>		<p>Document No:</p> <p style="text-align: center;">SS-EOP-03</p>
<p>Title:</p> <p style="text-align: center;">SSO REPORTING</p>		<p>Revision:</p> <p style="text-align: center;">0</p>
<p>Issued by:</p>  <p>Michael Zimmer Community Development/Public Works Director, City of Pacific Grove</p>	<p>Prepared by:</p> <p>Anastasia Mylonas Engineering Associate, Wallace Group</p>	<p>Page:</p> <p style="text-align: center;">1 of 14</p> <p>Effective Date:</p> <p style="text-align: center;">6/19/2013</p>

**1. Purpose**

The purpose of the SSO Reporting EOP is to ensure proper reporting of sanitary sewer overflows (SSOs), which occur in the City of Pacific Grove's (City's) sanitary sewer collection system, in order to protect public and environmental health.

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## 2. Location

A SSO, which requires the reporting procedures included in this EOP, can occur anywhere in the City's sanitary sewer collection system. Figure 3-1 illustrates the City service area in which the sanitary sewer collection system is located.



Figure 3-1: City Service Area

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**3. Scope and Availability**

The State Water Resources Control Board (SWRCB) Monitoring and Reporting Program (MRP) No. 2006-0003-DWQ as revised by Order No. WQ 2008-0002-EXEC for Order No. 2006-0003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems," establishes SSO reporting requirements for all federal and state agencies, municipalities, counties, districts, and other public entities, which own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California.

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#### 4. Definitions

Term	Definition
Business Hours	The City Administrative Office's business hours are 7:30 AM – 4:00 PM, Monday through Friday, excluding legal holidays.
California Department of Fish and Wildlife (CDFW)	CDFW (formerly "Department of Fish and Game") maintains native fish, wildlife, plant species and natural communities for their intrinsic and ecological value and their benefits to people. This includes habitat protection and maintenance in a sufficient amount and quality to ensure the survival of all species and natural communities.
California Emergency Management Agency (Cal EMA)	<p>Cal EMA was established on January 1, 2009 and merged the duties, powers, and responsibilities of the former California Governor's Office of Emergency Services (OES) with those of the California Governor's Office of Homeland Security.</p> <p>Cal EMA is responsible for the coordination of overall state agency response to major disasters in support of local government. The Agency is responsible for assuring the state's readiness to respond to and recover from hazards – natural, manmade, war-caused emergencies and disasters – and for assisting local governments in their emergency preparedness, response, recover, and hazard mitigation efforts. Sanitary sewer overflows are one of these hazards.</p>
California Integrated Water Quality System (CIWQS)	The online reporting system developed, hosted, and maintained by the SWRCB for compliance with the WDRs.
Category 1 SSO	<p>All discharges of sewage resulting from a failure in City's sanitary sewer system that:</p> <ol style="list-style-type: none"> <li>1. Equal or exceed 1000 gallons, or</li> <li>2. Result in a discharge to a drainage channel and/or surface water; or</li> <li>3. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.</li> </ol>
Category 2 SSO	All other discharges of sewage resulting from a failure in City's sanitary sewer system, which are not Category 1 SSOs.
City of Pacific	The City operates and maintains a sanitary sewer collection system, which conveys sewage to the wastewater treatment plant operated and

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<b>Term</b>	<b>Definition</b>
Grove (City)	maintained by Monterey Regional Water Pollution Control Agency (MRWPCA).
Collection System	Generic term for any system of pipes, sewer lines, and lift stations used to convey wastewater to a treatment facility.
Data Submitter	A Data Submitter is any individual authorized by the LRO to enter data into CIWQS, the online SSO database, on behalf of the City. In order for a person to be officially designated as a Data Submitter, they must complete the SWRCB's Data Submitter Registration Form for the SSO Database, which must be approved and signed by the City's LRO and is available on the SWRCB's website at the following link: <a href="http://www.waterboards.ca.gov/water_issues/programs/ss0/docs/datasubmitter_form.pdf">http://www.waterboards.ca.gov/water_issues/programs/ss0/docs/datasubmitter_form.pdf</a> .
Drainage Channel	A man-made canal used to transport stormwater as part of a municipal separate storm sewer system, or an intermittent or perennial stream bed.
Emergency Operating Procedure (EOP)	An EOP is a form of a standard operating procedure (SOP) for an activity associated with an emergency situation. SOP is defined below.
Environmental Protection Agency (EPA)	United States EPA's mission is to protect human health and the environment. EPA works to accomplish this mission through writing and enforcing federal regulations and policies and identifying, initiating national efforts to reduce environmental risk are based on the best available scientific information and identifying measurable environmental and human health outcomes and how EPA plans to achieve those results.
Green Line	Green Line is contracted by the City to provide collection system hydroflush cleaning and tree root removal services and emergency call out services.
Lateral	The segment of pipe which connects a home or building to a sewer main, which is usually located beneath a street or easement.
Legally Responsible Official (LRO)	A LRO is the person designated for the City as either a principal executive officer or ranking elected official or a duly authorized representative of that person. An individual is a duly authorized representative if: <ol style="list-style-type: none"> <li>1. The authorization is made in writing by a LRO; and</li> </ol>

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Term	Definition
	<p>2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.</p>
	<p>In order for a person to be officially designated as a LRO, they must complete the SWRCB's LRO Registration Form for the SSO Database, which is available on the SWRCB's website at the following link: <a href="http://www.waterboards.ca.gov/water_issues/programs/ss0/docs/lro_for_m.pdf">http://www.waterboards.ca.gov/water_issues/programs/ss0/docs/lro_for_m.pdf</a>.</p>
<p>Monitoring and Reporting Program (MRP)</p>	<p>Establishes monitoring, record keeping, reporting and public notification requirements as part of a waste discharge requirements (WDR). In this EOP, MRP refers to Order No. WQ 2008-0002-EXEC, which is the amended MRP for WDR Order No. 2006-0003-DWQ. Order No. 2006-DWQ is defined below under WDR.</p>
<p>Monterey County (Co.) Environmental Health Services (EHS)</p>	<p>Monterey Co. EHS is a division of Monterey Co. Public Health Department and prevents exposure to toxic substances, diseases, unsanitary conditions, and other environmental hazards through education and enforcement. Programs include hazardous materials management, food safety, water quality, recreational water and swimming pool monitoring, and solid waste facility oversight.</p>
<p>Monterey County (Co.) Office of Emergency Services (OES)</p>	<p>Monterey Co. OES is committed to serving the public before, during, and after times of emergency by promoting effective coordination between agencies, and encouraging preparedness of the public and organizations involved in emergency response. Monterey Co. OES, in coordination with local, state, and emergency response organizations, works continuously to better prepare and respond to any disaster the community may face.</p>
<p>Monterey County (Co.) Public Health Department</p>	<p>Monterey Co. Public Health Department improves and maintains community health by identifying health issues, preventing disease and injury, influencing policy development, and promoting healthy behaviors through leadership, collaborative partnerships, education, direct services, surveillance, and case management and payment for eligible indigent medical care.</p>
<p>Monterey Regional Water Pollution Control Agency (MRWPCA)</p>	<p>MRWPCA operates a regional wastewater treatment plant, which serves the following agencies: City of Pacific Grove, City of Monterey, City of Del Rey Oaks, Seaside County Sanitation District, Sand City, Fort Ord, City of Marina, Castroville Community Services District, Moss Landing, Boronda, City of Salinas, and Monterey County.</p>

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<b>Term</b>	<b>Definition</b>
Office of Emergency Services (OES) Control Number	<p>The OES Control Number is the number given for each hazard or emergency reported to OES. The OES Control Number is required to be reported by the City for a SSO in CIWQS.</p> <p>The Control Number provided by Cal EMA when the City notifies Cal EMA of a SSO is the Control Number, which must be reported as the OES Control Number.</p>
Private Lateral Sewage Discharge (PLSD)	<p>Sewage discharges that are caused by blockages or other problems within a privately owned lateral.</p>
Regional Water Quality Control Board (RWQCB)	<p>There are nine (9) RWQCBs in California, which are semi-autonomous and are comprised of nine (9) part-time Board Members appointed by the Governor and confirmed by the Senate. Each RWQCB makes water quality decisions for its region, including setting standards, issuing WDRs, determining compliance with those requirements, and taking appropriate enforcement action.</p> <p>The City of Pacific Grove is located in RWQCB Region 3: Central Coast, and therefore is regulated and monitored by the Central Coast RWQCB.</p>
Sanitary Sewer Overflow (SSO)	<p>Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:</p> <ol style="list-style-type: none"> <li>1. Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;</li> <li>2. Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and</li> <li>3. Wastewater backups into buildings on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.</li> </ol> <p>Temporary storage and conveyances facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.</p>
Sanitary Sewer System	<p>Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect</p>

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<b>Term</b>	<b>Definition</b>
(SSS)	and convey wastewater to the publicly owned treatment facility. Temporary storage and conveyances facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.
Sewer System Management Plan (SSMP)	A system-specific plan required by the WDR, which includes provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis, and a spill response plan that establishes procedures for immediate response to a SSO in a manner designed to minimize water quality impacts and potential nuisance conditions.
Spill	Generic term referring to any sewage discharge (i.e., SSO or PLSD) resulting from a failure in a sanitary sewer system, privately owned lateral, or collection system.
Standard Operating Procedure (SOP)	A SOP is a set of written instructions that document a routine or repetitive activity followed by an organization.
State Water Resources Control Board (SWRCB)	<p>The SWRCB's mission is to ensure the highest reasonable quality for waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses. The SWRCB sets statewide policy, coordinates and supports RWQCB efforts, and reviews petitions that contest RWQCB actions. SWRCB is also solely responsible for allocating surface water rights.</p> <p>The SWRCB consists of five full-time salaried Board Members, each filling a different specialty position. Each Board Member is appointed to a four-year term by the Governor and confirmed by the Senate.</p>
Untreated or Partially Treated Wastewater	Any volume of waste discharge from the sanitary sewer system upstream of a wastewater treatment plant headworks.
Waste Discharge Requirements (WDR)	WDRs regulate point discharges that are exempt pursuant to California Code of Regulations Title 27, Subsection 20090, such as sewage, and are not subject to the Federal Water Pollution Control Act. Discharges of domestic sewage or treated effluent are regulated by WDRs issued pursuant to California Code of Regulations Title 23, Division 3, Chapter

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**Term**

**Definition**

9.

In this EOP, WDR refers to the SWRCB's Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Order No. 2006-0003-DWQ, and Monitoring and Reporting Program (MRP) No. 2006-0003-DWQ as revised by Order No. WQ 2008-0002-EXEC, which requires all federal and state agencies, municipalities, counties, districts, and other public entities, which own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California to develop and implement Sewer System Management Plans and report all SSOs to SWRCB through CIWQS.

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## **5. Health and Safety Warnings**

1. This section is not applicable to this EOP.

## **6. Cautions**

1. Ensure that the SSO volume estimate being provided in the reporting is defensible and have the documentation needed to support the estimate.

## **7. Interferences**

1. The SSO Report submitted in CIWQS must be supported by documentation if it is to be considered accurate and defensible. Documentation for why certain response activities could not be accomplished is also imperative for reporting the SSO. Therefore, City Staff must ensure that the SSO response activities are sufficiently documented through written documentation and photographs.

## **8. Personnel Qualifications and Responsibilities**

1. LRO
  - a. The person designated as the LRO in the City's CIWQS account is the only person, who can certify and submit any reports to the SWRCB, RWQCB, and EPA, including the SSO Reports in CIWQS.
  - b. The LRO can also enter the SSO information into the SSO Report in CIWQS and save a Draft SSO Report.
  - c. The LRO is required to be trained on this EOP annually.
2. Data Submitter
  - a. The person designated as a Data Submitter by the LRO in the City's CIWQS account is the only person other than the LRO, who can enter the SSO information into the SSO Report in CIWQS and save a Draft SSO Report.
  - b. The Data Submitter is required to be trained on this EOP annually.

## **9. Equipment and Supplies**

1. Computer
2. SSO Response Field Checklist (SS-EOP-06)
3. Notification List (SS-EOP-02)
4. Water Quality Sampling Information (SS-EOP-07)

## **10. Procedure**

### **Category 1 SSOs**

1. Report all Category 1 SSOs as soon as:
  - a. City Staff or contractors have knowledge of the discharge;
  - b. Reporting is possible; and
  - c. Reporting can be provided without substantially impeding cleanup or other emergency measures
2. The Category 1 SSO must be reported in CIWQS as soon as possible, but no later than three (3) business days after the City is made aware of the SSO.
3. The three (3) day report must include all of the following information:

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- a. Location of SSO by entering GPS coordinates;
  - b. That the SSO occurred in RWQCB Region 3;
  - c. That the SSO occurred in Monterey County;
  - d. Whether the SSO entered a drainage channel and/or surface water;
  - e. Whether the SSO discharged to a storm drain pipe that was not fully captured and returned to the sanitary sewer system;
  - f. Estimated SSO volume in gallons;
  - g. Estimated SSO volume that reached surface water, drainage channel, or not recovered from a storm drain;
  - h. Estimated SSO amount recovered;
  - i. Response and corrective actions taken;
  - j. If samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA must be selected.
  - k. Parameters that samples were analyzed for (if applicable);
  - l. Identification of whether health warning signs were posted;
  - m. Beaches impacted (if applicable). If no beaches were impacted, NA must be selected;
  - n. Whether there is an ongoing investigation;
  - o. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
  - p. SSO source (manhole, cleanout, etc.);
  - q. SSO cause (mainline blockage, roots, etc.);
  - r. Time of SSO notification or discovery;
  - s. Estimated operator arrival time;
  - t. SSO destination;
  - u. Estimated SSO end time;
  - v. Cal EMA control number (if applicable), which is the OES control number requested in the SSO Report in CIWQS;
  - w. Date Cal EMA was called (if applicable);
  - x. Time Cal EMA was called (if applicable);
  - y. Identification of whether County Health Officers were called;
  - z. Date County Health Officer was called (if applicable);
  - aa. Time County Health Officer was called (if applicable); and
  - bb. SSO Certification.
4. Use Attachment 1 of this EOP for assistance with entering this information into CIWQS.
  5. If CIWQS is not available, the aforementioned information must be faxed to RWQCB at (805) 543-0397.
  6. Upon certifying the SSO Report, document the SSO Identification Number and save a pdf and hard copy of the SSO Report.

### **Category 2 SSOs**

1. Report the Category 2 SSO in CIWQS within thirty (30) days after the end of the calendar month in which the SSO occurs.
2. The SSO report must include all of the following information:
  - a. Location of SSO by entering GPS coordinates;

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- b. That the SSO occurred in RWQCB Region 3;
  - c. That the SSO occurred in Monterey County;
  - d. Whether the SSO entered a drainage channel and/or surface water;
  - e. Whether the SSO discharged to a storm drain pipe that was not fully captured and returned to the sanitary sewer system;
  - f. Estimated SSO volume in gallons;
  - g. SSO source (manhole, cleanout, etc.);
  - h. SSO cause (mainline blockage, roots, etc.);
  - i. Time of SSO notification or discovery;
  - j. Estimated operator arrival time;
  - k. SSO destination;
  - l. Estimated SSO end time; and
  - m. SSO Certification.
3. Use Attachment 1 of this EOP for assistance with entering this information into CIWQS.
  4. If CIWQS is not available, the aforementioned information must be faxed to RWQCB at (805) 543-0397.
  5. Upon certifying the SSO Report, document the SSO Identification Number and save a pdf and hard copy of the SSO Report.

#### **Private Lateral Sewage Discharges**

1. Private Lateral Sewage Discharges (PLSDs) may be reported in CIWQS at the City's discretion, but it is not required.
2. If a PLSD is reported in CIWQS, the City must identify the sewage discharge as occurring and caused by a private lateral, and a responsible party (other than the City) should be identified, if known.
3. The SSO report must include all of the following information:
  - a. Identification of sewage discharge as a PLSD;
  - b. Responsible party contact information (if known);
  - c. Location of SSO by entering GPS coordinates;
  - d. That the SSO occurred in RWQCB Region 3;
  - e. That the SSO occurred in Monterey County;
  - f. Whether the SSO entered a drainage channel and/or surface water;
  - g. Whether the SSO discharged to a storm drain pipe that was not fully captured and returned to the sanitary sewer system;
  - h. Estimated SSO volume in gallons;
  - i. SSO source;
  - j. SSO cause (mainline blockage, roots, etc.);
  - k. Time of SSO notification or discovery;
  - l. Estimated operator arrival time;
  - m. SSO destination;
  - n. Estimated SSO end time; and
  - o. SSO Certification
4. If the City wishes to report a PLSD and CIWQS is not available, the report must be faxed to RWQCB at (805) 543-0397.

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5. If the City wishes to report a PLSD and CIWQS is not available, the report must be faxed to RWQCB at (805) 543-0397.
6. If the City reports a PLSD, upon certifying the SSO Report, document the SSO Identification Number and save a pdf and hard copy of the SSO Report.

### **No Spill Certification**

1. If there are no SSOs during a calendar month, the City must certify that there were no spills in CIWQS.
2. The “No Spill Certification” must be completed within thirty (30) days after the end of the calendar month in which there were no SSOs.
3. If CIWQS is not available, the aforementioned information must be faxed to RWQCB at (805) 543-0397.

### **Collection System Questionnaire**

1. The “Collection System Questionnaire” must be updated in CIWQS a minimum of every twelve (12) months from the last update.
2. Each time the “Collection System Questionnaire” is updated, the due date for the next date changes to one year from the date of the new certified update.

## **11. Data and Records Management**

1. Individual SSO records shall be maintained for a minimum of five (5) years from the date of the SSO. This period may be extended when requested by a RWQCB Executive Officer.
2. All records shall be made available for review upon SWRCB or RWQCB Staff’s request.
3. SSO records, which must be retained include, but are not limited to:
  - a. Record of Certified report, as submitted to CIWQS;
  - b. All original recordings for continuous monitoring instrumentation;
  - c. Service call records and complaint logs of calls received;
  - d. SSO calls;
  - e. SSO records;
  - f. Steps that have been and will be taken to prevent the SSO from recurring and a schedule to implement those steps;
  - g. Work orders, work completed, and any other maintenance records from the previous five (5) years which are associated with responses and investigations of system problems related to SSOs;
  - h. A list and description of complaints from customers or others from the previous five (5) years; and
  - i. Documentation of performance and implementation measures for the previous five (5) years.
4. If water quality samples are required as a result of any SSO, records of monitoring information shall include the:
  - a. Date, exact place, and time of sampling measurements;
  - b. Individual(s) who performed the sampling or measurements;
  - c. Date(s) analyses were performed;

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- d. Individuals who performed the analyses;
- e. Analytical technique or method used; and
- f. Results of such analyses.

**12. Quality Control and Quality Assurance**

1. The Data Submitter will save the SSO Report in CIWQS as a Draft Report.
2. The LRO will review the SSO Report, make any needed changes, and certify the final SSO Report in CIWQS.

**13. References**

1. SS-EOP-02: SSO Notification
2. SS-EOP-06: SSO Mitigation and Cleanup
3. SS-EOP-07: Water Quality Monitoring and SSO Impact Assessment
4. Adopted Amended MRP for the WDR: Order No. WQ 2008-0002-EXEC

**14. Attachments**

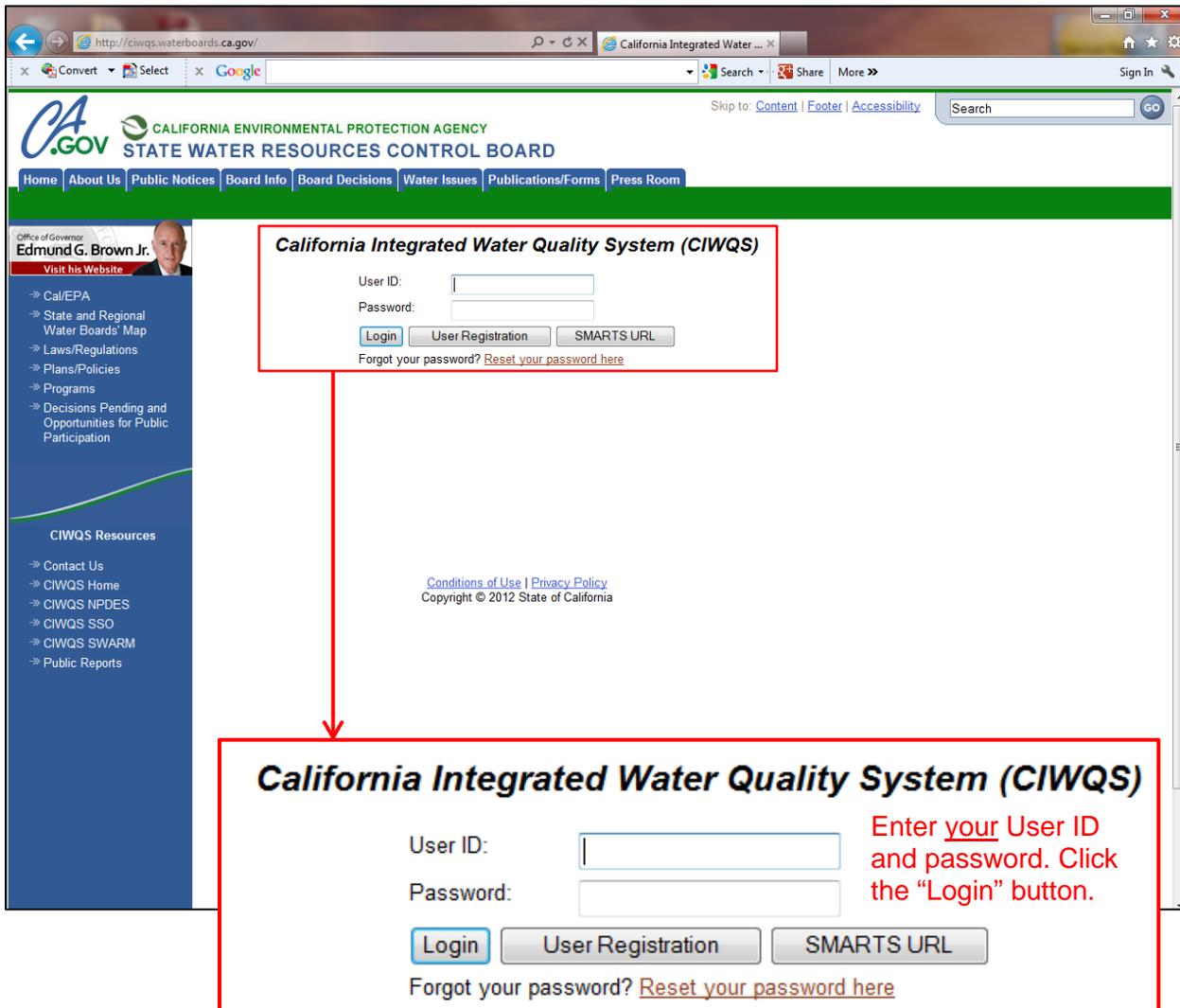
1. Reporting SSOs in CIWQS

 <p><b>Standard Operating Procedure</b></p> <p>City of Pacific Grove</p>		<p>Document No.:</p> <p style="text-align: center;">SS-EOP-03</p> <p>Attachment No.: 1</p>
<p>Title:</p> <p style="text-align: center;"><b>SSO REPORTING ATTACHMENT 1: Reporting SSOs in CIWQS</b></p>		<p>Revision:</p> <p style="text-align: center;">0</p>
<p>Issued by:</p>  <p>Michael Zimmer Community Development/Public Works Director, City of Pacific Grove</p>	<p>Prepared by:</p> <p>Anastasia Mylonas Engineering Associate, Wallace Group</p>	<p>Page:</p> <p style="text-align: center;">1 of 14</p> <p>Effective Date:</p> <p style="text-align: center;">6/19/2013</p>

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Open Internet Explorer 

Go to the following website: <http://ciwqs.waterboards.ca.gov/>, which will bring you to the webpage shown below.



**California Integrated Water Quality System (CIWQS)**

User ID:

Password:

[Login](#) [User Registration](#) [SMARTS URL](#)

Forgot your password? [Reset your password here](#)

**California Integrated Water Quality System (CIWQS)**

User ID:

Password:

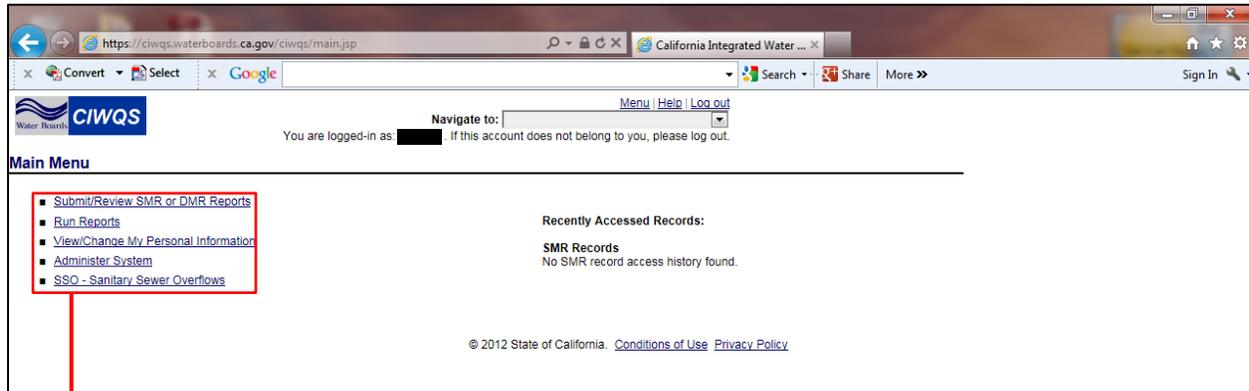
[Login](#) [User Registration](#) [SMARTS URL](#)

Forgot your password? [Reset your password here](#)

Enter your User ID and password. Click the "Login" button.

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This will open the following webpage:



- [Submit/Review SMR or DMR Reports](#)
- [Run Reports](#)
- [View/Change My Personal Information](#)
- [Administer System](#)
- [SSO - Sanitary Sewer Overflows](#)

Click on "SSO – Sanitary Sewer Overflows".

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This will open the following webpage:

The screenshot shows a web browser window displaying the CIWQS SSO Menu. The browser address bar shows the URL <https://ciwqs.waterboards.ca.gov/ciwqs/ss0.jsp>. The page header includes the CIWQS logo and navigation links for Menu, Help, and Log out. Below the header, the user is logged in as [redacted] and is in Region 3 - Central Coast. The SSO Menu is displayed with the following items:

- Collection System Questionnaire [?]
- Sewer System Management Plan (SSMP) Certification [?]
- Reporting New SSO [?]
- Modifying Existing SSO [?]
- Generate No Spill Certification [?]
- View SSO Incident Map - Public Collection Systems (Not Site Specific)
- View SSO Incident Map - Private Laterals (Not Site Specific)

Two red boxes highlight the menu items. The first box highlights the first six items. The second box highlights the same six items, with a red arrow pointing to the "Reporting New SSO" link and the text "Click on 'Reporting New SSO'".

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This will open the following webpage:

**SSO - General Information** ? [SSO Menu](#)

SSO Event ID: **New**      Regional Water Board: **Region 3 - Central Coast**

Spill Location Name:      Agency: XXXXXXXXXX

   Sanitary Sewer System: XXXXXXXXXX

Answer these questions to determine whether the SSO is a Category 1 or 2.

General Info

Spill Related Parties

Attachments

---

*Note: Questions with "\*" are required to be answered.*

**Determine Spill Type:** ?

\* Estimated spill volume?  gallons ← Enter the estimated spill volume in gallons, such as 723.

\* Did the spill discharge to a drainage channel and/or surface water?  ← Select "Yes" or "No".

\* Did the spill reach a storm drainpipe?  ← Select "Yes" or "No".

\* If spill reached a storm drainpipe, was all of the wastewater fully captured and returned to the sanitary sewer system?  ← Select "Yes," "No," or "NA". →

\* Private Lateral Spill?  ← Select "Yes" or "No".

Name of responsible party (for private lateral spill only, if known):  Enter if known.

When you have answered the above questions, click the "Continue" button.

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This will open the following webpage:

**SSO - General Information** [?] SSO Menu

SSO Event ID: [Redacted]

Regional Water Board: Region 3 - Central Coast

Agency: [Redacted]

Sanitary Sewer System: [Redacted]

Document the SSO Event ID in your records.

Follow the instructions included below to complete the questions on this webpage.

1 - Spill Type: SSO Category 1  
2 - Version: 1.0

**Physical Location Details**

\* 3 - Spill location name: [Text Field]

\* 4 - Latitude of spill location: [ ] deg. [ ] min. [ ] sec. OR [ ] decimal degrees [Show Map]

\* 5 - Longitude of spill location: [ ] deg. [ ] min. [ ] sec. OR [ ] decimal degrees [Show Map]

6 - Street number: [ ] 7 - Street direction: [ ]

8 - Street name: [ ] 9 - Street type: [ ] 10 - Suite/Apt: [ ]

11 - Cross street: [ ]

12 - City: [ ] 13 - State: CA [ ] 14 - Zip: [ ]

\* 15 - County: San Luis Obispo [ ]

16 - Spill location description: [ ] (Use attachment if location description is more than 2000 characters)

\* 17 - Regional Water Quality Control Board: Region 3 - Central Coast [ ]

The following are the instructions for completing the SSO Report questions:

\* 3 - Spill location name: [Text Field]

Enter the address, cross street, or name of the area, such as a shopping center name.

\* 4 - Latitude of spill location: [ ] deg. [ ] min. [ ] sec. OR [ ] decimal degrees [Show Map]

\* 5 - Longitude of spill location: [ ] deg. [ ] min. [ ] sec. OR [ ] decimal degrees [Show Map]

Click on "Show Map".

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This will open the following window:

The screenshot shows a web browser window titled "Map window - Windows Internet Explorer" with the URL <https://ciwqs.waterboards.ca.gov/ciwqs/latitudeLongitudeTool.jsp>. The page contains a form with "Latitude:" and "Longitude:" input fields, a note that "Longitudes should always be negative", and a "Set Coordinates" button. Below this is a text instruction: "To find the coordinates for a particular location, click on the map or enter a street address: (Example: '123 Main Street, Sacramento, CA')". A text input field is provided for the address, with a "Go!" button to its right. A map of California and Nevada is displayed below, with a navigation control panel on the right side. Red arrows point to the address input field, the "Go!" button, and the map navigation controls. The text "OR" is placed between the two main instructions.

Enter the address at which the SSO occurred.

OR

Use the buttons on the map to zoom in and select the SSO location on the map.

After entering the address, click on "Go!".

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The map pop-up window will then close and you will return to the SSO Report question webpage. Continue to answer the questions as outlined below.

Only enter a direction if street has N, S, E, or W in its name. Ave., Blvd., Rd, etc.

6 - Street number:  7 - Street direction:

8 - Street name:  9 - Street type:  10 - Suite/Apt:

11 - Cross street:

12 - City:  13 - State:  14 - Zip:

\*15 - County:

Check that all of the SSO location address information auto-populated correctly. Complete any missing information.

**16 - Spill location description:**  
(Use attachment if location description is more than 2000 characters)

Provide a description of the SSO location. Include detail of whether the SSO was from a manhole in the right of way or not, on a steep hill, near a creek, went directly from a catchbasin to the creek, etc.

\*17 - Regional Water Quality Control Board: This is auto-filled by CIWQS.

\*18 - Spill appearance point:  
(Hold Ctrl key to Select Multiple answers from the list)

- Building or structure
- Combined sewer D.I.
- Force main or pressure sewer

Scroll through the entire list for the appropriate appearance point, and click on the correct spill appearance point. If there is more than one appearance point, hold the Ctrl key on your keyboard at the same time as you click on the multiple appearance points in the list.

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**19 - Spill appearance point explanation:**  
(Required if spill appearance point is "Other")

Describe if "Other" was selected in #18. →

\* 20 - Did the spill discharge to a drainage channel and/or surface water?  [View History](#) ← Select "Yes" or "No".

\* 21 - Did the spill reach a separate (i.e.,not combined) storm drainpipe?  [View History](#) ← Select "Yes" or "No".

\* 22 - If spill reached a separate storm drainpipe, was all of the wastewater fully captured from the separate storm drain and returned to the sanitary sewer system?  →

\* 23 - Private lateral spill?  [View History](#) ← Select "Yes" or "No".

24 - Name of responsible party (for private lateral spill only, if known):

\* 25 - Final spill destination:  
(Hold Ctrl key to Select Multiple answers from the list)

[View History](#)

Scroll through the entire list for the appropriate final spill destination, and click on the correct final spill destination. If there is more than one final spill destination, hold the Ctrl key on your keyboard at the same time as you click on the multiple final spill destinations in the list.

**26 - Explanation of final spill destination:**  
(Required if final spill destination is "Other")

Describe if "Other" was selected in #18. →

\* 27 - Estimated spill volume: Total volume of sewage spilled in gallons. →  gallons [View History](#)

\* 28 - Estimated volume of spill recovered: Volume of SSO vacuumed (leave out washdown). →  gallons [View History](#)

\* 1.1 - Estimated volume (greater than 0) of spill that reached surface water, drainage channel, or not recovered from a separate storm drain: Volume of SSO lost to state water. →  gallons [View History](#)

29 - Estimated current spill rate (if applicable): Enter spill rate in GPM. →  gallons per minute

If the SSO is a Category 1 SSO, questions numbers 1.1 through 1.18 will be present in the SSO report and are required.

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\*30 - Estimated spill start date/time:   |  |  Date Format: MM/DD/YYYY

This is the date and time that the informant first noticed the SSO. Lawrence (Stoney) Bangert will ask the caller what this time was and note it in the Sewer Spill Contact Information form (Page 2 of the Contact Report). Use 24 hour time (i.e., 1:15pm is 13:15).

AFTER HOURS: Dispatch asks the caller when they first noticed the SSO or City Staff asks the caller for this information during SSO follow-up activities. If this information is not able to be retrieved, this is the time the call was received by Dispatch.

\*31 - Date and time sanitary sewer system agency was notified of or discovered spill:   |  |  Date Format: MM/DD/YYYY

This is the date and time that the informant called the City and spoke with Stoney. Stoney will note it in the iWorQ notification he sends. Use 24 hour time (i.e., 1:15pm is 13:15).

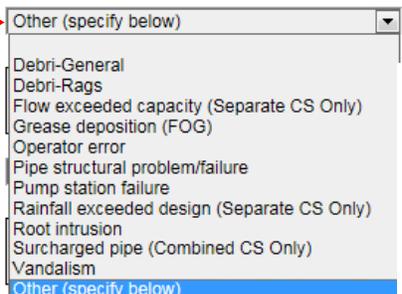
AFTER HOURS: This is the time Dispatch radios the crew.

\*32 - Estimated Operator arrival date/time:   |  |  Date Format: MM/DD/YYYY

Enter the date and time at which the first operator arrived to the site of the SSO in order to respond to and mitigate the SSO. Use 24 hour time (i.e., 1:15pm is 13:15).

\*33 - Estimated spill end date/time:   |  |  Date Format: MM/DD/YYYY

Enter the date and time at which the SSO ended. Use 24 hour time (i.e., 1:15pm is 13:15).

\*34 - Spill cause: Select one of the SSO causes from the drop down list.  

- Other (specify below)
- Debri-General
- Debri-Rags
- Flow exceeded capacity (Separate CS Only)
- Grease deposition (FOG)
- Operator error
- Pipe structural problem/failure
- Pump station failure
- Rainfall exceeded design (Separate CS Only)
- Root intrusion
- Surcharged pipe (Combined CS Only)
- Vandalism
- Other (specify below)

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35 - Spill cause explanation:  
(Required if spill Cause is "Other")

Provide a SSO cause explanation if "Other" was given as the SSO cause in #34.

\* 36 - Where did failure occur? Select one of the failure locations from the drop down list.

Other (specify below)  
Upper Lateral  
Main  
Lower Lateral  
Other (specify below)

37 - Explanation of Where Failure Occurred:  
(Required if Where Failure Occurred is "Other")

Provide a failure location explanation if "Other" was given as the failure location in #36.

If a rain event caused the SSO, enter the estimated storm size.

38 - If spill caused by wet weather, choose size of storm:

39 - Diameter of sewer pipe at the point of blockage or spill cause (if applicable): inches

40 - Material of sewer pipe at the point of blockage or spill cause (if applicable):

41 - Estimated age of sewer pipe at the point of blockage or spill cause (if applicable):

42 - Description of terrain surrounding the point of blockage or spill cause (if applicable):

Enter the pipe properties (diameter, material, and age) for the pipe which was the failure point that caused the SSO.

Enter the terrain (flat, steep, or mixed) of the area at which the failure point that caused the SSO is located.

\* 43 - Spill response activities:  
(Hold Ctrl key to Select Multiple answers from the list)

Cleaned-up (mitigated effects of spill)  
Contained all or portion of spill  
Inspected sewer using CCTV to determine cause

Scroll through the entire list for the appropriate spill response activities, and click on the correct spill response activity. If there is more than one appropriate spill response activity, hold the Ctrl key on your keyboard at the same time as you click on the multiple spill response activities in the list.

44 - Explanation of spill response activities:  
(Required if spill response activities is "Other", use attachment if the text is more than 1700 characters)

Describe if "Other" was selected in #43.

\* 1.2 Spill response completion date:

Date Format: MM/DD/YYYY

This is the date and time at which crews finished all clean-up and drove away from the site. Use 24 hour time (i.e., 1:15pm is 13:15).

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45 - Visual inspection results from impacted receiving water:  
 Enter "N/A", "No visual indicators", or describe the visual indicators, which were witnessed. →

\* 1.3 - Health warnings posted?  ← Select "Yes" or "No".

46a - Name of impacted beach(es) :  
 Enter "N/A" if there was no impact. Enter the beach name if one was impacted. →

\* 46b - Name of impacted surface water(s):  
 Enter "N/A" if there was no impact. Enter the surface water name if one was impacted. →

\* 1.6 - Is there an ongoing investigation?  ← Select "Yes" or "No".

\* 1.7 - Water quality samples analyzed for:  
 (Hold Ctrl key to Select Multiple answers from the list)

Dissolved oxygen  
 Other chemical indicator(s) - specify below  
 Biological indicator(s) - specify below

If the SSO did not reach surface water, select "Not applicable to this spill". If the SSO reached surface water and water quality samples were taken, select "Biological indicator(s) – specify below". If the SSO reached surface water and water quality samples were not taken, select "Other (specify below)".

1.8 - Explanation of water quality samples analyzed for:  
 (Required if water quality samples analyzed for is "Other chemical indicator(s)", "Biological indicator(s)", or "Other")

If "Biological indicator(s) – specify below" was selected in #1.7, identify which water quality samples were taken, such as fecal coliform, total coliform, etc. If "Other (specify below)" was selected in #1.7, describe the reason for not taking water quality samples, such as safety concerns due to flooding and tidal influences.

\* 1.9 - Water quality sample results reported To:  
 (Hold Ctrl key to Select Multiple answers)

County Health Agency  
 Regional Water Quality Control Board  
 None of the above

If the SSO did not reach surface water, select "Not applicable to this spill". If the SSO reached surface water and water quality samples were taken, hold the Ctrl key on your keyboard and click on "County Health Agency" and "RWQCB". If the SSO reached surface water and water quality samples were not taken, select "No water quality samples are taken".

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**1.10 - Explanation of water quality sample results reported to:**  
(Required if water quality sample results reported to is "Other")

**\* 1.11 - Spill corrective action taken:**  
(Hold Ctrl key to Select Multiple answers from the list)

Added sewer to preventive maintenance program  
Adjusted schedule/method of preventive maintenance  
Enforcement action against FOG source

Scroll through the entire list for the appropriate spill corrective action taken, and click on the correct spill corrective action taken. If there is more than one spill corrective action taken, hold the Ctrl key on your keyboard at the same time as you click on the multiple spill corrective actions, which were taken.

**1.12 - Explanation of spill corrective action taken:**  
(Required if spill corrective action is "Other")

Describe if "Other" was selected in #1.11.

**Notification Details**

**47 - OES Control Number**  
(Required for **Category 1** - see SSO Monitoring and Reporting Program Requirements):

**48 - OES Called Date/Time**  
(Required for **Category 1** - see SSO Monitoring and Reporting Program Requirements):

This is the date and time Cal EMA was called and notified of the SSO. This information is located on the Page 4 of the SSO Response Field Checklist under "Reporting". Use 24 hour time (i.e., 1:15pm is 13:15).

**\* 1.13 - County health agency notified:** Select "Yes" or "No".

**1.14 - Agency Name** Enter "Monterey County Environmental Health Services".

**1.15 - Method Notification** Enter "Phone".

**1.16 - Name of Staff Contacted** Enter the name of the Monterey County EHS staff the operator spoke with.

**1.17 - Phone Number of Staff Contacted** Enter "831-253-2687".

**1.18 - County health agency notified date/time:**  
(required if County health agency notified is "Yes")

This is the date and time Monterey County Environmental Health was called and notified of the SSO. Use 24 hour time (i.e., 1:15pm is 13:15).

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49 - Regional Water Quality Control Board notified date/time:  :  Date Format: MM/DD/YYYY

This is the date and time RWQCB was called and notified of the SSO. Use 24 hour time (i.e., 1:15pm is 13:15).

50 - Method Notification Enter "Phone". →

51 - Name of Staff Contacted Enter "Sheila Soderberg" →

52 - Phone Number of Staff Contacted Enter "805-549-3147". →

53 - Other Agency Notified: Enter "California Department of Fish and Wildlife" if Cat. 1 SSO. →

54 - Was any of this spill report information submitted via fax (or electronically) to the Regional Water Quality Control Board?  Yes  No

Select "Yes". Sheila Soderberg should always be notified of the SSO via phone AND email.

55 - Date and time spill report information was submitted via fax (or electronically) to the Regional Water quality Control Board:  :  Date Format: MM/DD/YYYY  
(required if spill report information submitted via fax to Regional Water Board is "Yes")

Note: Questions with "\*" are required to be answered to certify this report.

This is the date and time at which Sheila Soderberg was emailed to notify her of the SSO.

When you have finished filling out the SSO report, click "Save Work in Progress". This will save all of the information you have typed.

Then review all the information you have inputted into the SSO Report. If the information is accurate to your knowledge, click "Submit Draft".

After the draft is submitted, changes can be made to the report. When changes are made, you must click "Update" after you complete the changes in order to save them to the report.

After the evidence of the SSO has been reviewed and evaluated and the SSO estimated volumes have been checked and refined with the data collected during the SSO, click "Ready to Certify". The LRO must then certify this report.

 <b>Standard Operating Procedure</b> City of Pacific Grove		Document No:  SS-EOP-04
Title: SSO TRAFFIC AND CROWD CONTROL		Revision: 0
Issued by:  Michael Zimmer <i>Community Development/Public Works Director,</i> City of Pacific Grove	Prepared by: Anastasia Mylonas <i>Engineering Associate,</i> Wallace Group	Page: 1 of 11  Effective Date: 6/19/2013

**1. Purpose**

The purpose of the SSO Traffic and Crowd Control EOP is to ensure that the public and City of Pacific Grove (City) Staff, who responsible for sanitary sewer overflow (SSO) response and mitigation activities, are safe and that the SSO response and mitigation activities are completed effectively and efficiently.

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## 2. Location

A SSO, which requires the traffic and crowd control procedures included in this EOP, can occur anywhere in the City's sanitary sewer collection system. Figure 4-1 illustrates the City service area in which the sanitary sewer collection system is located.



Source: Esri, DigitalGlobe, GeoEye, Earthstar, USDA, USGS, AeroGRID, IGN, IGP, and the GIS User Community

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LANDSCAPE ARCHITECTURE, MECHANICAL ENGINEERING  
PLANNING, PUBLIC WORKS ADMINISTRATION  
SURVEYING SOLUTIONS, WATER RESOURCES  
WALLACE SIMMONS INTERNATIONAL



City of Pacific Grove  
Service Area

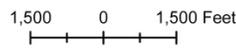


Figure 4-1: City Service Area

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### **3. Scope and Availability**

The State Water Resources Control Board's (SWRCB) Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WDR), Order No. 2006-0003-DWQ, establishes the requirement for all federal and state agencies, municipalities, counties, districts, and other public entities, which own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California, to have procedures to address emergency operations, such as traffic and crowd control.

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#### 4. Definitions

Term	Definition
Business Hours	The City Administrative Office's business hours are 7:30 AM – 4:00 PM, Monday through Friday, excluding legal holidays.
Cal/OSHA	Cal/OSHA is the California Division of Occupational Health and Safety and protects workers and the publics from safety hazards through its health and safety programs.
California Code of Regulations (CCR)	The CCR is the official compilation and publication of the regulations adopted, amended, or repealed by state agencies pursuant to the Administrative Procedure Act.
Category 1 SSO	All discharges of sewage resulting from a failure in City's sanitary sewer system that: <ol style="list-style-type: none"> <li>1. Equal or exceed 1000 gallons, or</li> <li>2. Result in a discharge to a drainage channel and/or surface water; or</li> <li>3. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.</li> </ol>
Category 2 SSO	All other discharges of sewage resulting from a failure in City's sanitary sewer system, which are not Category 1 SSOs.
California Integrated Water Quality System (CIWQS)	The online reporting system developed, hosted, and maintained by the SWRCB for compliance with the WDRs.
City of Pacific Grove (City)	The City operates and maintains a sanitary sewer collection system, which conveys sewage to the wastewater treatment plant operated and maintained by Monterey Regional Water Pollution Control Agency (MRWPCA).
Code of Federal Regulations (CFR)	The CFR is the codification of the general and permanent rules published in the Federal Register by the departments and agencies of the Federal Government.
Collection	Generic term for any system of pipes, sewer lines, and lift stations used

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<b>Term</b>	<b>Definition</b>
System	to convey wastewater to a treatment facility.
Drainage Channel	A man-made canal used to transport stormwater as part of a municipal separate storm sewer system, or an intermittent or perennial stream bed.
Data Submitter	A Data Submitter is any individual authorized by the LRO to enter data into CIWQS, the online SSO database, on behalf of the City. In order for a person to be officially designated as a Data Submitter, they must complete the SWRCB's Data Submitter Registration Form for the SSO Database, which must be approved and signed by the City's LRO and is available on the SWRCB's website at the following link: <a href="http://www.waterboards.ca.gov/water_issues/programs/ss0/docs/datasubmitter_form.pdf">http://www.waterboards.ca.gov/water_issues/programs/ss0/docs/datasubmitter_form.pdf</a> .
Emergency Operating Procedure (EOP)	An EOP is a form of a standard operating procedure (SOP) for an activity associated with an emergency situation. SOP is defined below.
Green Line	Green Line is contracted by the City to provide collection system hydroflush cleaning and tree removal services and emergency call out services.
Injury and Illness Prevention Program (IIPP)	The IIPP is a basic written workplace safety program, which is required by Title 8 of the California Code of Regulations (CCR). The IPP includes eight elements: (1) Responsibility, (2) Compliance, (3) Hazard Assessment, (5) Accident/Exposure Investigation, (6) Hazard Correction, (7) Training and Instruction, and (8) Recordkeeping.
Lateral	The segment of pipe which connects a home or building to a sewer main, which is usually located beneath a street or easement.
Legally Responsible Official (LRO)	A LRO is the person designated for the City as either a principal executive officer or ranking elected official or a duly authorized representative of that person. An individual is a duly authorized representative if: <ol style="list-style-type: none"> <li>1. The authorization is made in writing by a LRO; and</li> <li>2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.</li> </ol> <p>In order for a person to be officially designated as a LRO, they must complete the SWRCB's LRO Registration Form for the SSO Database,</p>

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Term	Definition
	<p>which is available on the SWRCB's website at the following link:  <a href="http://www.waterboards.ca.gov/water_issues/programs/sso/docs/lro_for_m.pdf">http://www.waterboards.ca.gov/water_issues/programs/sso/docs/lro_for_m.pdf</a>.</p>
Monitoring and Reporting Program (MRP)	<p>Establishes monitoring, record keeping, reporting and public notification requirements as part of a waste discharge requirements (WDR). In this EOP, MRP refers to Order No. WQ 2008-0002-EXEC, which is the amended MRP for WDR Order No. 2006-0003-DWQ. Order No. 2006-DWQ is defined below under WDR.</p>
Monterey Regional Water Pollution Control Agency (MRWPCA)	<p>MRWPCA operates a regional wastewater treatment plant, which serves the following agencies: City of Pacific Grove, City of Monterey, City of Del Rey Oaks, Seaside County Sanitation District, Sand City, Fort Ord, City of Marina, Castroville Community Services District, Moss Landing, Boronda, City of Salinas, and Monterey County.</p>
Personal Protective Equipment (PPE)	<p>PPE is designed to protect workers from serious workplace injuries or illnesses resulting from contact with chemical, radiological, physical, electrical, mechanical, or other workplace hazards. PPE includes a variety of equipment, devices, and garments including, but not limited to, face shields, safety glasses, hard hats, safety shoes, goggles, coveralls, gloves, vests, earplugs, and respirators.</p> <p>PPE requirements are in Title 29 of the Code of Federal Regulations (CFR), Part 1910 Subpart I, and Title 8 of the California Code of Regulations (CCR) Chapter 4.</p>
Private Lateral Sewage Discharge (PLSD)	<p>Sewage discharges that are caused by blockages or other problems within a privately owned lateral.</p>
OSHA	<p>The Occupational Safety and Health Administration, which is part of the United States Department of Labor and was created to assure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education, and assistance.</p>
Regional Water Quality Control Board (RWQCB)	<p>There are nine (9) RWQCBs in California, which are semi-autonomous and are comprised of nine (9) part-time Board Members appointed by the Governor and confirmed by the Senate. Each RWQCB makes water quality decisions for its region, including setting standards, issuing WDRs, determining compliance with those requirements, and taking</p>

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Term	Definition
	<p>appropriate enforcement action.</p> <p>The City of Pacific Grove is located in RWQCB Region 3: Central Coast, and therefore is regulated and monitored by the Central Coast RWQCB.</p>
Sanitary Sewer Overflow (SSO)	<p>Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:</p> <ol style="list-style-type: none"> <li>1. Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;</li> <li>2. Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and</li> <li>3. Wastewater backups into buildings on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.</li> </ol> <p>Temporary storage and conveyances facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.</p>
Sanitary Sewer System (SSS)	<p>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 publicly owned treatment facility. Temporary storage and conveyances facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.</p>
Sewer System Management Plan (SSMP)	<p>A system-specific plan required by the WDR, which includes provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis, and a spill response plan that establishes procedures for immediate response to a SSO in a manner designed to minimize water quality impacts and potential nuisance conditions.</p>
Spill	<p>Generic term referring to any sewage discharge (i.e., SSO or PLSD) resulting from a failure in a sanitary sewer system, privately owned</p>

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Term	Definition
Standard Operating Procedure (SOP)	<p>lateral, or collection system.</p> <p>A SOP is a set of written instructions that document a routine or repetitive activity followed by an organization.</p>
State Water Resources Control Board (SWRCB)	<p>The SWRCB's mission is to ensure the highest reasonable quality for waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses. The SWRCB sets statewide policy, coordinates and supports RWQCB efforts, and reviews petitions that contest RWQCB actions. SWRCB is also solely responsible for allocating surface water rights.</p> <p>The SWRCB consists of five full-time salaried Board Members, each filling a different specialty position. Each Board Member is appointed to a four-year term by the Governor and confirmed by the Senate.</p>
Untreated or Partially Treated Wastewater	Any volume of waste discharge from the sanitary sewer system upstream of a wastewater treatment plant headworks.
Waste Discharge Requirements (WDR)	<p>WDRs regulate point discharges that are exempt pursuant to California Code of Regulations Title 27, Subsection 20090, such as sewage, and are not subject to the Federal Water Pollution Control Act. Discharges of domestic sewage or treated effluent are regulated by WDRs issued pursuant to California Code of Regulations Title 23, Division 3, Chapter 9.</p> <p>In this EOP, WDR refers to the SWRCB's Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Order No. 2006-0003-DWQ, and Monitoring and Reporting Program (MRP) No. 2006-0003-DWQ as revised by Order No. WQ 2008-0002-EXEC, which requires all federal and state agencies, municipalities, counties, districts, and other public entities, which own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California to develop and implement Sewer System Management Plans and report all SSOs to SWRCB through CIWQS.</p>
Work Area Traffic Control Handbook	WATCH is a handbook that contains information for traffic control in construction work areas on local and county roads. The City of Pacific Grove uses the 2009 WATCH 11 <sup>th</sup> Edition.

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<b>Term</b>	<b>Definition</b>
(WATCH)	

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## **5. Health and Safety Warnings**

1. Employees are required to follow the City's or contractor's safety practices and procedures, whichever is more stringent. These procedures must establish guidelines in compliance with the:
  - a. Occupational Health and Safety Administration (OSHA);
  - b. California Division of Occupational Safety and Health (Cal/OSHA);
  - c. City of Pacific Grove's Illness and Injury Prevention Program (IIPP); and
  - d. City of Pacific Grove requirements and standards.
2. Multiple hazards exist in the performance of SSO response. The following are some of the more common hazards to be aware of:
  - a. Traffic in the vicinity of SSO response activities
  - b. Distracted drivers
  - c. Members of the public interested in SSO response activities
  - d. Infections and disease
  - e. Slips, trips, and falls
  - f. Falling objects
  - g. Bites (insects, bugs, rodents, etc.)
  - h. Noise
  - i. Weather conditions

## **6. Cautions**

1. Ensure that traffic and crowd control measures are maintained and items, such as signs, flags, and barricades, are not moved or removed.

## **7. Interferences**

1. This section is not applicable to this EOP.

## **8. Personnel Qualifications and Responsibilities**

1. Wastewater Field Supervisor
  - a. Responsible for training all City Staff responsible for SSO Response are trained on this EOP annually.
  - b. Responsible for ensuring that all contractors responsible for SSO Response train their Staff on this EOP annually.
  - c. Responsible for managing, maintaining, and updating this EOP.
2. City Staff and Contractors Responsible for SSO Response
  - a. Required to be trained on this EOP annually.
3. Police and Fire Departments
  - a. Responsible for ensuring that their Staff is trained regularly in traffic and crowd control.
  - b. Responsible for ensuring that their Staff is trained on and employs all of the health and safety requirements and precautions during traffic and crowd control activities.

## **9. Equipment and Supplies**

1. 2009 Work Area Traffic Control Handbook (WATCH) 11<sup>th</sup> Edition

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2. Personal Protective Equipment (PPE):
  - a. Gloves
  - b. Rubber Boots
  - c. Safety Glasses
  - d. Flashlights
  - e. Safety Vest
3. Traffic and Crowd Control Equipment:
  - a. Orange Cones and Delineators
  - b. Handheld Traffic Signs
  - c. Traffic Beacons
  - d. Caution Tape
  - e. Signage, such as "Work Ahead" and "Road Closed"
4. Cell Phone

## 10. Procedure

### Traffic Control

1. City of Pacific Grove Staff follows the 2009 WATCH 11<sup>th</sup> Edition for all traffic control.

### Crowd Control

1. City of Pacific Grove Staff depends on the Police Department to perform crowd control.
  - a. If crowd control is needed, Vince Gentry calls County Com at (831) 647-7911, which contacts Dispatch for the Police and Fire Departments, and requests support for crowd control.

## 11. Data and Records Management

1. Photographs must be taken to document any traffic and crowd control.
  - a. Attach these photographs to the SSO Response Field Checklist described and included in SS-EOP-06: SSO Mitigation and Cleanup.

## 12. Quality Control and Quality Assurance

1. The Wastewater Field Supervisor is responsible for reviewing and evaluating the records of completed traffic and crowd control.
2. The Wastewater Field Supervisor is responsible for reviewing, evaluating, revising, and updating this EOP.

## 13. References

1. 2009 WATCH 11<sup>th</sup> Edition
2. SS-EOP-06: SSO Mitigation and Cleanup
3. WDR: Order No. 2006-0003-DWQ

## 14. Attachments

1. There are no attachments to this EOP.

 <p><b>Standard Operating Procedure</b></p> <p>City of Pacific Grove</p>		<p>Document No:</p> <p style="text-align: center;">SS-EOP-05</p>
<p>Title:</p> <p style="text-align: center;">SSO VOLUME ESTIMATION</p>		<p>Revision:</p> <p style="text-align: center;">0</p>
<p>Issued by:</p>  <p>Michael Zimmer Community Development/Public Works Director City of Pacific Grove</p>	<p>Prepared by:</p> <p>Anastasia Mylonas Engineering Associate, Wallace Group</p>	<p>Page:</p> <p style="text-align: center;">1 of 14</p> <p>Effective Date:</p> <p style="text-align: center;">6/19/2013</p>

**1. Purpose**

The purpose of the SSO Volume Estimation EOP is to ensure proper estimation of the volume of sanitary sewer overflows (SSOs), which occur in the City of Pacific Grove's (City's) sanitary sewer collection system.

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## 2. Location

A SSO, which requires the volume estimation procedures included in this EOP, can occur anywhere in the City's sanitary sewer collection system. Figure 5-1 illustrates the City service area in which the sanitary sewer collection system is located.



Source: Esri, DigitalGlobe, GeoEye, iSatellite, USDA, USGS, AEX, Getmapping, Aergrid, IGN, IGP, and the GIS User Community



City of Pacific Grove  
Service Area

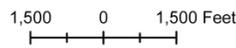


Figure 5-1: City Service Area

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### **3. Scope and Availability**

The State Water Resources Control Board (SWRCB) Monitoring and Reporting Program (MRP) No. 2006-0003-DWQ as revised by Order No. WQ 2008-0002-EXEC for Order No. 2006-0003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems," establishes SSO reporting requirements for all federal and state agencies, municipalities, counties, districts, and other public entities, which own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California. The SSO volume must be estimated by City Staff in order to be reported as required by the MRP.

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#### 4. Definitions

<b>Term</b>	<b>Definition</b>
Business Hours	The City Administrative Office's business hours are 7:30 AM – 4:00 PM, Monday through Friday, excluding legal holidays.
Cal/OSHA	Cal/OSHA is the California Division of Occupational Health and Safety and protects workers and the publics from safety hazards through its health and safety programs.
California Code of Regulations (CCR)	The CCR is the official compilation and publication of the regulations adopted, amended, or repealed by state agencies pursuant to the Administrative Procedure Act.
California Integrated Water Quality System (CIWQS)	The online reporting system developed, hosted, and maintained by the SWRCB for compliance with the WDRs.
Category 1 SSO	All discharges of sewage resulting from a failure in City's sanitary sewer system that: <ol style="list-style-type: none"> <li>1. Equal or exceed 1000 gallons, or</li> <li>2. Result in a discharge to a drainage channel and/or surface water; or</li> <li>3. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.</li> </ol>
Category 2 SSO	All other discharges of sewage resulting from a failure in City's sanitary sewer system, which are not Category 1 SSOs.
City of Pacific Grove (City)	The City operates and maintains a sanitary sewer collection system, which conveys sewage to the wastewater treatment plant operated and maintained by Monterey Regional Water Pollution Control Agency (MRWPCA).
Code of Federal Regulations (CFR)	The CFR is the codification of the general and permanent rules published in the Federal Register by the departments and agencies of the Federal Government.
Collection	Generic term for any system of pipes, sewer lines, and lift stations used

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<b>Term</b>	<b>Definition</b>
System	to convey wastewater to a treatment facility.
Data Submitter	A Data Submitter is any individual authorized by the LRO to enter data into CIWQS, the online SSO database, on behalf of the City. In order for a person to be officially designated as a Data Submitter, they must complete the SWRCB's Data Submitter Registration Form for the SSO Database, which must be approved and signed by the City's LRO and is available on the SWRCB's website at the following link: <a href="http://www.waterboards.ca.gov/water_issues/programs/ss0/docs/datasubmitter_form.pdf">http://www.waterboards.ca.gov/water_issues/programs/ss0/docs/datasubmitter_form.pdf</a> .
Drainage Channel	A man-made canal used to transport stormwater as part of a municipal separate storm sewer system, or an intermittent or perennial stream bed.
Emergency Operating Procedure (EOP)	An EOP is a form of a standard operating procedure (SOP) for an activity associated with an emergency situation. SOP is defined below.
Environmental Protection Agency (EPA)	United States EPA's mission is to protect human health and the environment. EPA works to accomplish this mission through writing and enforcing federal regulations and policies and identifying, initiating national efforts to reduce environmental risk are based on the best available scientific information and identifying measurable environmental and human health outcomes and how EPA plans to achieve those results.
Green Line	Green Line is contracted by the City to provide collection system hydroflush cleaning and tree root removal services and emergency call out services.
Injury and Illness Prevention Program (IIPP)	The IIPP is a basic written workplace safety program, which is required by Title 8 of the California Code of Regulations (CCR). The IPP includes eight elements: (1) Responsibility, (2) Compliance, (3) Hazard Assessment, (5) Accident/Exposure Investigation, (6) Hazard Correction, (7) Training and Instruction, and (8) Recordkeeping.
Lateral	The segment of pipe which connects a home or building to a sewer main, which is usually located beneath a street or easement.
Legally Responsible Official (LRO)	A LRO is the person designated for the City as either a principal executive officer or ranking elected official or a duly authorized representative of that person. An individual is a duly authorized representative if:

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Term	Definition
	<ol style="list-style-type: none"> <li>1. The authorization is made in writing by a LRO; and</li> <li>2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.</li> </ol>
	<p>In order for a person to be officially designated as a LRO, they must complete the SWRCB's LRO Registration Form for the SSO Database, which is available on the SWRCB's website at the following link:  <a href="http://www.waterboards.ca.gov/water_issues/programs/ssso/docs/lro_for_m.pdf">http://www.waterboards.ca.gov/water_issues/programs/ssso/docs/lro_for_m.pdf</a>.</p>
Monitoring and Reporting Program (MRP)	Establishes monitoring, record keeping, reporting and public notification requirements as part of a waste discharge requirements (WDR). In this EOP, MRP refers to Order No. WQ 2008-0002-EXEC, which is the amended MRP for WDR Order No. 2006-0003-DWQ. Order No. 2006-DWQ is defined below under WDR.
Monterey Regional Water Pollution Control Agency (MRWPCA)	MRWPCA operates a regional wastewater treatment plant, which serves the following agencies: City of Pacific Grove, City of Monterey, City of Del Rey Oaks, Seaside County Sanitation District, Sand City, Fort Ord, City of Marina, Castroville Community Services District, Moss Landing, Boronda, City of Salinas, and Monterey County.
Personal Protective Equipment (PPE)	PPE is designed to protect workers from serious workplace injuries or illnesses resulting from contact with chemical, radiological, physical, electrical, mechanical, or other workplace hazards. PPE includes a variety of equipment, devices, and garments including, but not limited to, face shields, safety glasses, hard hats, safety shoes, goggles, coveralls, gloves, vests, earplugs, and respirators.
	PPE standards are in Title 29 of the Code of Federal Regulations (CFR), Part 1910 Subpart I, and Title 8 of the California Code of Regulations (CCR) Chapter 4.
Private Lateral Sewage Discharge (PLSD)	Sewage discharges that are caused by blockages or other problems within a privately owned lateral.
OSHA	The Occupational Safety and Health Administration, which is part of the United States Department of Labor and was created to assure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education, and

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Term	Definition
Regional Water Quality Control Board (RWQCB)	<p>assistance.</p> <p>There are nine (9) RWQCBs in California, which are semi-autonomous and are comprised of nine (9) part-time Board Members appointed by the Governor and confirmed by the Senate. Each RWQCB makes water quality decisions for its region, including setting standards, issuing WDRs, determining compliance with those requirements, and taking appropriate enforcement action.</p>
Sanitary Sewer Overflow (SSO)	<p>The City of Pacific Grove is located in RWQCB Region 3: Central Coast, and therefore is regulated and monitored by the Central Coast RWQCB.</p> <p>Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:</p> <ol style="list-style-type: none"> <li>1. Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;</li> <li>2. Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and</li> <li>3. Wastewater backups into buildings on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.</li> </ol> <p>Temporary storage and conveyances facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.</p>
Sanitary Sewer System (SSS)	<p>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 publicly owned treatment facility.</p> <p>Temporary storage and conveyances facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.</p>
Sewer System Management Plan (SSMP)	<p>A system-specific plan required by the WDR, which includes provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis, and a spill response plan</p>

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Term	Definition
	that establishes procedures for immediate response to a SSO in a manner designed to minimize water quality impacts and potential nuisance conditions.
Spill	Generic term referring to any sewage discharge (i.e., SSO or PLSD) resulting from a failure in a sanitary sewer system, privately owned lateral, or collection system.
Standard Operating Procedure (SOP)	A SOP is a set of written instructions that document a routine or repetitive activity followed by an organization.
State Water Resources Control Board (SWRCB)	<p>The SWRCB's mission is to ensure the highest reasonable quality for waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses. The SWRCB sets statewide policy, coordinates and supports RWQCB efforts, and reviews petitions that contest RWQCB actions. SWRCB is also solely responsible for allocating surface water rights.</p> <p>The SWRCB consists of five full-time salaried Board Members, each filling a different specialty position. Each Board Member is appointed to a four-year term by the Governor and confirmed by the Senate.</p>
Untreated or Partially Treated Wastewater	Any volume of waste discharge from the sanitary sewer system upstream of a wastewater treatment plant headworks.
Waste Discharge Requirements (WDR)	<p>WDRs regulate point discharges that are exempt pursuant to California Code of Regulations Title 27, Subsection 20090, such as sewage, and are not subject to the Federal Water Pollution Control Act. Discharges of domestic sewage or treated effluent are regulated by WDRs issued pursuant to California Code of Regulations Title 23, Division 3, Chapter 9.</p> <p>In this EOP, WDR refers to the SWRCB's Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Order No. 2006-0003-DWQ, and Monitoring and Reporting Program (MRP) No. 2006-0003-DWQ as revised by Order No. WQ 2008-0002-EXEC, which requires all federal and state agencies, municipalities, counties, districts, and other public entities, which own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California to develop and implement Sewer System Management Plans and report all SSOs to SWRCB through</p>

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**Term**

**Definition**

Work Area  
Traffic Control  
Handbook  
(WATCH)

CIWQS.

WATCH is a handbook that contains information for traffic control in construction work areas on local and county roads. The City of Pacific Grove uses the 2009 WATCH 11<sup>th</sup> Edition.

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## **5. Health and Safety Warnings**

1. Employees are required to follow the City's or contractor's safety practices and procedures, whichever is more stringent. These procedures must establish guidelines in compliance with the:
  - a. Occupational Health and Safety Administration (OSHA);
  - b. California Division of Occupational Safety and Health (Cal/OSHA);
  - c. City of Pacific Grove's Illness and Injury Prevention Program (IIPP); and
  - d. City of Pacific Grove requirements and standards.
2. Multiple hazards exist in the performance of SSO response. The following are some of the more common hazards to be aware of:
  - a. Traffic in the vicinity of SSO response activities
  - b. Distracted drivers
  - c. Members of the public interested in SSO response activities
  - d. Slips, trips, and falls
  - e. Falling objects
  - f. Infections and disease
  - g. Poisonous/toxic gases
  - h. Strains and back injuries
  - i. Bites (insects, bugs, rodents, etc.)
  - j. Drowning
  - k. Noise
  - l. Weather conditions

## **6. Cautions**

1. Ensure that the SSO volume estimate being provided in the reporting is defensible and have the documentation needed to support the estimate.

## **7. Interferences**

1. Fluctuations in SSO flow rate alter the SSO volume, which should be estimated. Therefore, Staff should continuously monitor SSO flow rates during SSO response activities as conditions allow.
2. City Staff will need to be able to estimate the total SSO volume after responding to the SSO and defend the SSO volume estimate. Therefore, City Staff should take photographs of the SSO location, site, and cleanup activities to assist in accurate SSO volume estimation and provide support for the reported estimate.
3. SSO volume estimates need to be as accurate as possible and defensible. City Staff needs to maintain a record of all of the information utilized to calculate the volume estimate.

## **8. Personnel Qualifications and Responsibilities**

1. LRO
  - a. Responsible for the final review and approval of the SSO volume estimation.
  - b. Responsible for certifying and submitting any reports regarding the SSO volume estimation to the SWRCB, RWQCB, and EPA.

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- c. Can also be responsible for entering the SSO information, including the SSO volume estimate, into the SSO Report in CIWQS.
  - d. Required to be trained on this EOP annually.
- 2. Data Submitter
  - a. Responsible for entering the SSO information, including the SSO volume estimate, into the SSO Report in CIWQS.
  - b. Required to be trained on this EOP annually.
- 3. Wastewater Field Supervisor
  - a. Responsible for reviewing and approving all SSO volume estimates before they are reported.
  - b. Responsible for training all City Staff and contractors responsible, who are in a position, which could require them to make the notifications outlined in this EOP.
  - c. Required to be trained on this EOP annually. This can be in conjunction with holding this training.
  - d. Responsible for maintaining and updating this EOP.
- 4. City Engineer
  - a. Responsible for reviewing and/or assisting with SSO volume estimation for large SSOs, unusual cases, or at the request of the Wastewater Field Supervisor or LRO.
  - b. Required to be trained on this EOP annually.
- 5. City Staff and Contractors Responsible for SSO Response
  - a. Required to be trained on this EOP annually.

## 9. Equipment and Supplies

- 1. Attachments to this EOP
  - a. Attachment 1: Measured Volume SSO Estimation Worksheet
  - b. Attachment 2: Area and Volume SSO Estimation Guide
  - c. Attachment 3: Active SSO Estimation Worksheet
- 2. Tape Measure
- 3. Camera
- 4. Pen
- 5. Personal Protective Equipment (PPE):
  - a. Gloves
  - b. Rubber Boots
  - c. Safety Glasses
  - d. Flashlights
  - e. Safety Vest

## 10. Procedure

There are three (3) SSO volume estimation methods, which are described below. The person preparing the estimate should use the method most appropriate to the SSO using the best information available. Photographs of the SSO at the time of arrival, during the SSO response, and after the SSO is stopped, and after the SSO is cleaned up must be taken as safety allows in order to assist City Staff with deriving a SSO volume estimate. However, taking photographs should not interfere with the first

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priorities of the responder, such as safeguarding the area, containing the SSO, and clearing the cause of the SSO.

### **Method 1: Eyeball Estimate**

1. Applicability: For use on very small SSOs up to 100 gallons.
2. Image the amount of water that would spill from a bucket or barrel and use that image to estimate the volume of the SSO.
  - a. A bucket contains 5 gallons.
  - b. A barrel contains 55 gallons.
3. For SSOs greater than 55 gallons, divide the standing water into barrels and multiply the number of barrels by 55 gallons.

### **Method 2: Measured Volume**

1. Applicability: For use on most SSOs.
2. Use the Attachment 1 of this EOP, Measured Volume SSO Estimation Worksheet, to document the calculations.
3. Sketch the shape of the contained sewage.
4. Measure or pace off the dimensions in feet.
5. Measure the depth in feet.
6. Calculate the area using the following formulas:
  - a. Rectangle: Area = length x width
  - b. Circle: Area =  $0.785 \times D^2$  where D is the circle diameter
  - c. Triangle: Area = base x height x 0.5
7. Multiply the area calculated in the previous step times the depth of the SSO.
8. Multiply this number by 7.48 to convert it to gallons.
9. This number is the volume of the SSO in gallons.
10. Attachment 2 of this EOP, Volume Estimation Guide, can be referenced for additional calculation methods.

### **Method 3: Duration and Flow Rate**

1. Applicability: For use on SSOs where it is difficult or impossible to measure the area and depth.
2. Duration:
  - a. The duration is the elapsed time from the start time of the SSO to the time the SSO stopped.
  - b. Start Time:
    - i. Ask local residents about their observations of the SSOs, including odors and sounds. This information can be used to estimate the start time.
  - c. End Time:
    - i. This is the time at which the SSO was stopped by the field crew.
3. Flow Rate:
  - a. The flow rate is the average flow that left the sewer system during the time of the SSO, which can be estimated the following two (2) ways:

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- i. Manhole Flow Rate Chart
    1. Use Attachment 3 of this EOP, Active SSO Estimation Worksheet, to document the flow rate calculation.
    2. This chart illustrates the sewage flowing from a manhole cover for a variety of flow rates.
    3. The observations of the field crew, which must be documented in photographs, are used to select the approximate flow rate from the chart.
  - ii. Upstream Connections
    1. Once the location of the SSO is known, the number of upstream connections can be determined.
    2. Multiply the number of upstream connections by the average flow rate (gallons per hour) for that time of day.
      - a. The City Engineer should provide the flow rate based on the City's typical flow curve.
      - b. This number can be converted to gallons per hour if necessary:
        - i.  $\text{Flow Rate (gallons per hour)} \div 24 \text{ hours/day} = \text{Flow Rate (gallons per day)}$
4. Volume Estimate:
- a. Estimated SSO Volume = Duration (in hours) x Flow Rate (in gallons per hour); or
  - b. Estimated SSO Volume = Duration (in days) x Flow Rate (in gallons per day).

## 11. Data and Records Management

1. The Wastewater Field Supervisor will maintain all SSO volume calculations and supporting documents at the City Public Works Office as an attachment to SSO reporting documents.
2. Individual SSO records shall be maintained for a minimum of five (5) years from the date of the SSO. This period may be extended when requested by a RWQCB Executive Officer.
3. All records shall be made available for review upon SWRCB or RWQCB Staff's request.
4. SSO records, which must be retained include, but are not limited to:
  - a. Record of Certified report, as submitted to CIWQS;
  - b. All original recordings for continuous monitoring instrumentation;
  - c. Service call records and complaint logs of calls received;
  - d. SSO calls;
  - e. SSO records;
  - f. Steps that have been and will be taken to prevent the SSO from recurring and a schedule to implement those steps;
  - g. Work orders, work completed, and any other maintenance records from the previous five (5) years which are associated with responses and investigations of system problems related to SSOs;
  - h. A list and description of complaints from customers or others from the previous five (5) years; and

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- i. Documentation of performance and implementation measures for the previous five (5) years.
5. If water quality samples are required as a result of any SSO, records of monitoring information shall include the:
  - a. Date, exact place, and time of sampling measurements;
  - b. Individual(s) who performed the sampling or measurements;
  - c. Date(s) analyses were performed;
  - d. Individuals who performed the analyses;
  - e. Analytical technique or method used; and
  - f. Results of such analyses.

## **12. Quality Control and Quality Assurance**

1. LRO
  - a. Responsible for the final review and approval of the SSO volume estimation.
2. Wastewater Field Supervisor
  - a. Responsible for reviewing and approving all SSO volume estimates before they are reported.
3. City Engineer
  - a. Responsible for reviewing and/or assisting with SSO volume estimation for large SSOs, unusual cases, or at the request of the Wastewater Field Supervisor or LRO.

## **13. References**

1. Adopted Amended MRP for the WDR: Order No. WQ 2008-0002-EXEC
2. CWEA: SSO Volume Estimation Worksheets and Field Materials (May 2012)

## **14. Attachments**

1. Measured Volume SSO Estimation Worksheet
2. Area and Volume SSO Estimation Guide
3. Active SSO Estimation Worksheet

 <p><b>Standard Operating Procedure</b></p> <p>City of Pacific Grove</p>		<p>Document No.:</p> <p style="text-align: center;">SS-EOP-05</p> <p>Attachment No.: 1</p>
<p>Title:</p> <p style="text-align: center;">SSO VOLUME ESTIMATION ATTACHMENT 1: Measured Volume SSO Estimation Worksheet</p>		<p>Revision:</p> <p style="text-align: center;">0</p>
<p>Issued by:</p>  <p>Michael Zimmer Community Development/Public Works Director, City of Pacific Grove</p>	<p>Prepared by:</p> <p>Anastasia Mylonas Engineering Associate, Wallace Group</p>	<p>Page:</p> <p style="text-align: center;">1 of 3</p> <p>Effective Date:</p> <p style="text-align: center;">6/19/2013</p>



# Measured Volume SSO Estimation Worksheet

Surface:  Asphalt  Concrete  Dirt  Landscape  Inside Building Other \_\_\_\_\_

(Draw / Sketch outline of Spill 'Footprint' and attach photos)

*~~ Breakdown the 'Footprint' into Recognizable Shapes and Determine Dimensions of Each Shape ~~*

Area #1 \_\_\_\_\_ % Wet \_\_\_\_\_

Stain. Depth1 \_\_\_\_\_ Depth2 \_\_\_\_\_ Depth3 \_\_\_\_\_ Depth4 \_\_\_\_\_ Depth5 \_\_\_\_\_ Depth6 \_\_\_\_\_

Area #2 \_\_\_\_\_ % Wet \_\_\_\_\_

Stain. Depth1 \_\_\_\_\_ Depth2 \_\_\_\_\_ Depth3 \_\_\_\_\_ Depth4 \_\_\_\_\_ Depth5 \_\_\_\_\_ Depth6 \_\_\_\_\_

Area #3 \_\_\_\_\_ % Wet \_\_\_\_\_

Stain. Depth1 \_\_\_\_\_ Depth2 \_\_\_\_\_ Depth3 \_\_\_\_\_ Depth4 \_\_\_\_\_ Depth5 \_\_\_\_\_ Depth6 \_\_\_\_\_

Area #4 \_\_\_\_\_ % Wet \_\_\_\_\_

Stain. Depth1 \_\_\_\_\_ Depth2 \_\_\_\_\_ Depth3 \_\_\_\_\_ Depth4 \_\_\_\_\_ Depth5 \_\_\_\_\_ Depth6 \_\_\_\_\_

Area #5 \_\_\_\_\_ % Wet \_\_\_\_\_

Stain. Depth1 \_\_\_\_\_ Depth2 \_\_\_\_\_ Depth3 \_\_\_\_\_ Depth4 \_\_\_\_\_ Depth5 \_\_\_\_\_ Depth6 \_\_\_\_\_

Area #6 \_\_\_\_\_ % Wet \_\_\_\_\_

Stain. Depth1 \_\_\_\_\_ Depth2 \_\_\_\_\_ Depth3 \_\_\_\_\_ Depth4 \_\_\_\_\_ Depth5 \_\_\_\_\_ Depth6 \_\_\_\_\_

**(To be Completed by Supervisor)**



## Measured Volume SSO Estimation Worksheet

Area #1 Square Feet: \_\_\_\_\_ x % Wet \_\_\_\_\_ = \_\_\_\_\_ Sq/Ft  
Ave Depth: \_\_\_\_\_  Concrete 0.0026'  Asphalt 0.0013'  
Volume: \_\_\_\_\_ Cu/Ft

Area #2 Square Feet: \_\_\_\_\_ x % Wet \_\_\_\_\_ = \_\_\_\_\_ Sq/Ft  
Ave Depth: \_\_\_\_\_  Concrete 0.0026'  Asphalt 0.0013'  
Volume: \_\_\_\_\_ Cu/Ft

Area #3 Square Feet: \_\_\_\_\_ x % Wet \_\_\_\_\_ = \_\_\_\_\_ Sq/Ft  
Ave Depth: \_\_\_\_\_  Concrete 0.0026'  Asphalt 0.0013'  
Volume: \_\_\_\_\_ Cu/Ft

Area #4 Square Feet: \_\_\_\_\_ x % Wet \_\_\_\_\_ = \_\_\_\_\_ Sq/Ft  
Ave Depth: \_\_\_\_\_  Concrete 0.0026'  Asphalt 0.0013'  
Volume: \_\_\_\_\_ Cu/Ft

Area #5 Square Feet: \_\_\_\_\_ x % Wet \_\_\_\_\_ = \_\_\_\_\_ Sq/Ft  
Ave Depth: \_\_\_\_\_  Concrete 0.0026'  Asphalt 0.0013'  
Volume: \_\_\_\_\_ Cu/Ft

Area #6 Square Feet: \_\_\_\_\_ x % Wet \_\_\_\_\_ = \_\_\_\_\_ Sq/Ft  
Ave Depth: \_\_\_\_\_  Concrete 0.0026'  Asphalt 0.0013'  
Volume: \_\_\_\_\_ Cu/Ft

Total Volume:

#1 \_\_\_\_\_, #2 \_\_\_\_\_, #3 \_\_\_\_\_, #4 \_\_\_\_\_, #5 \_\_\_\_\_, #6 \_\_\_\_\_ = \_\_\_\_\_ \*cu ft

\_\_\_\_\_ \*cu ft x 7.48 gallons = \_\_\_\_\_ **gallons Spilled.**

 <p><b>Standard Operating Procedure</b></p> <p>City of Pacific Grove</p>		<p>Document No.:</p> <p style="text-align: center;">SS-EOP-05</p> <p>Attachment No.: 2</p>
<p>Title:</p> <p style="text-align: center;"><b>SSO VOLUME ESTIMATION ATTACHMENT 2: Area and Volume SSO Estimation Guide</b></p>		<p>Revision:</p> <p style="text-align: center;">0</p>
<p>Issued by:</p>  <p>Michael Zimmer Community Development/Public Works Director City of Pacific Grove</p>	<p>Prepared by:</p> <p>Anastasia Mylonas Engineering Associate, Wallace Group</p>	<p>Page:</p> <p style="text-align: center;">1 of 10</p> <p>Effective Date:</p> <p style="text-align: center;">6/19/2013</p>

# Areas and Volumes

## SSO Estimation Guide

### PURPOSE

The purpose of this guide is to assist with the estimation of the Volume of a Sewage Spill. It has limited application, as it can be used on dry surfaces where the limits of the spill footprint can be determined and in instances when the spill is contained. It does not require that the Spill Duration and Spill Flow Rate be known. However, any and all information available should be used if it helps to make a more accurate estimate.

### HOW IT WORKS

This guide contains formulas for determining the volume of some basic geometric shapes and some simple conversions that are necessary to determine volume (in gallons.) Any sewage spill will leave a 'wetted footprint' on the surfaces affected. This guide will help you to determine the area of the wetted footprint of the spill. The wetted footprint will not likely be a geometric shape that is easy to determine the area. You will have to be creative and find the familiar shapes within the shape. This will be demonstrated later in the guide. After determining the area contacted by the spill, the depth of the spilled sewage must be determined, which, combined with the area, will lead to the volume spilled.

### CONVERSIONS

\*\* To convert inches into feet: Divide the inches by 12.

Example:  $27'' / 12 = 2.25'$

Or Use Chart A

Example:  $1 \frac{3}{4}'' = ?$

$1'' (0.08') + \frac{3}{4}'' (0.06') = \underline{0.14'}$

\*\* One Cubic Foot can contain 7.48 gallons of liquid.

Chart A		
Conversion:		
<u>Inches</u>	to	<u>Feet</u>
1/8"	=	0.01'
1/4"	=	0.02'
3/8"	=	0.03'
1/2"	=	0.04'
5/8"	=	0.05'
3/4"	=	0.06'
7/8"	=	0.07'
1"	=	0.08'
2"	=	0.17'
3"	=	0.25'
4"	=	0.33'
5"	=	0.42'
6"	=	0.50'
7"	=	0.58'
8"	=	0.67'
9"	=	0.75'
10"	=	0.83'
11"	=	0.92'
12"	=	1.00'

# Areas and Volumes

## SSO Estimation Guide

### GEOMETRY

For the purposes of this guide, the unit of measurement will be in feet for formula examples.

Area is two-dimensional - represented in square feet. (Length x Width)

Volume is three-dimensional - represented in cubic feet. (Length x Width x depth) or (Diameter Squared)  $D^2 \times 0.785 \times \text{depth}$ .

#### **A Note about Depth**

Wet Stain on a Concrete Surface - For a stain on concrete, use 0.0026'. This number is 1/32" converted to feet. For a stain on asphalt use 0.0013' (1/64"). These were determined to be a reasonable depth to use on the respective surfaces through a process of trial and error. A known amount of water (one gallon) was poured onto both asphalt and concrete surfaces. Once the Area was determined as accurately as possible, different depths were used to determine the volume of the wetted footprint until the formula produced a result that (closely) matched the one gallon spilled. 1/32" was the most consistently accurate depth on concrete and 1/64" for asphalt. This process was repeated several times.

Sewage "Ponding" or Contained - Measure actual depth of standing sewage whenever possible. When depth varies, measure several (representative) points, determine the average and use that number in your formula to determine volume.

#### **Area/Volume Formulas**

Area is two dimensional and is represented as Square Feet (SQ/FT)

Volume is three dimensional and is represented as Cubic Feet (CU/FT)

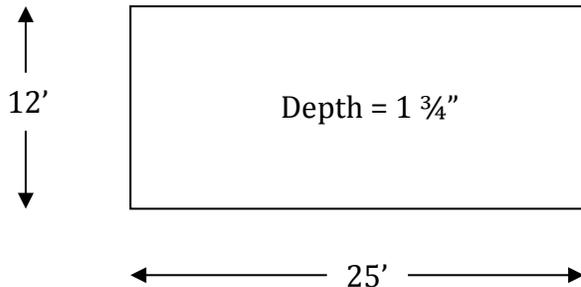
One Cubic Foot can hold 7.48 gallons

# Areas and Volumes

## SSO Estimation Guide

### AREA/VOLUME OF A RECTANGLE OR SQUARE

Formula: **Length x Width x Depth** = Volume in Cubic Feet



Length (25') x Width (12') x Depth (0.14')

25' x 12' x 0.14' = 42 Cubic Feet.

Now the Volume in Cubic Feet is known.

There are 7.48 Gallons in one Cubic Foot

So, 42 Cubic Feet x 7.48 gallons/cubic foot = **314 Gallons**

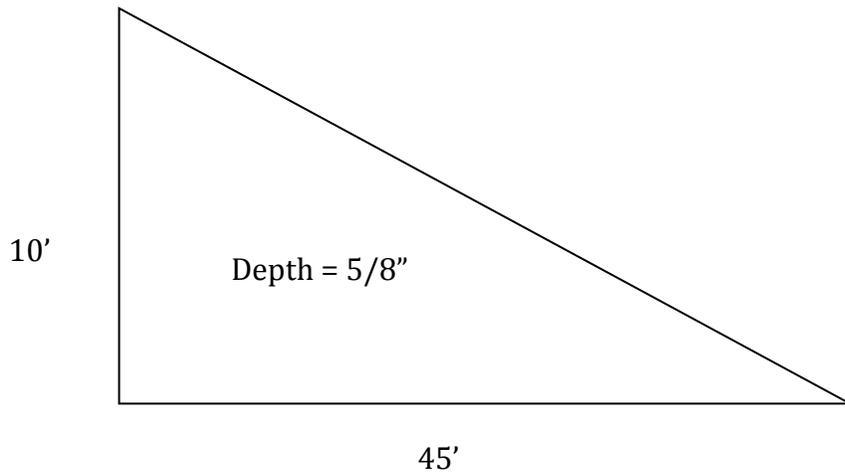
Chart A		
Conversion:		
Inches	to	Feet
1/8"	=	0.01'
1/4"	=	0.02'
3/8"	=	0.03'
1/2"	=	0.04'
5/8"	=	0.05'
3/4"	=	0.06'
7/8"	=	0.07'
1"	=	0.08'
2"	=	0.17'
3"	=	0.25'
4"	=	0.33'
5"	=	0.42'
6"	=	0.50'
7"	=	0.58'
8"	=	0.67'
9"	=	0.75'
10"	=	0.83'
11"	=	0.92'
12"	=	1.00'

# Areas and Volumes

## SSO Estimation Guide

### AREA/VOLUME OF A RIGHT TRIANGLE

Base x Height x 0.5 x Depth = Volume in Cubic Feet



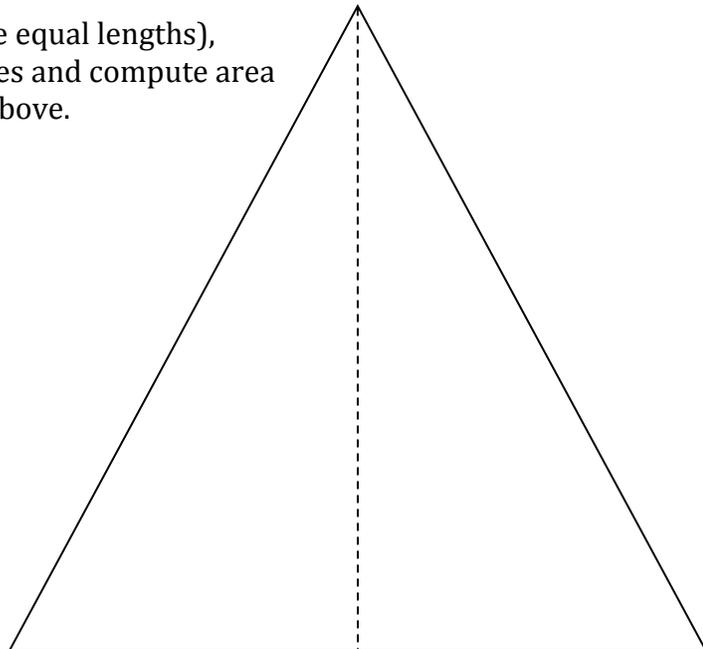
#### Chart A

Conversion:

<u>Inches</u>	to	<u>Feet</u>
1/8"	=	0.01'
1/4"	=	0.02'
3/8"	=	0.03'
1/2"	=	0.04'
5/8"	=	0.05'
3/4"	=	0.06'
7/8"	=	0.07'
1"	=	0.08'
2"	=	0.17'
3"	=	0.25'
4"	=	0.33'
5"	=	0.42'
6"	=	0.50'
7"	=	0.58'
8"	=	0.67'
9"	=	0.75'
10"	=	0.83'
11"	=	0.92'
12"	=	1.00'

Base (45') x Height (10') x 0.5 x Depth (.05') x 7.48 gallons/cubic foot = **84 gallons**

For Isosceles Triangles (two sides are equal lengths),  
Break it down into two Right Triangles and compute area  
as you would for the Right Triangle above.



# Areas and Volumes

## SSO Estimation Guide

### AREA/VOLUME OF A CIRCLE/CYLINDER

$$D^2 \times 0.785 \times d$$

Diameter Squared x 0.785 x Depth = Volume in cubic feet.

Diameter = Any straight line segment that passes through the center of a circle.

For our purposes, it is the measurement across the widest part of a circle.

$$D^2 \times 0.785 \times \text{depth} = \text{Volume in cubic feet}$$

Example:

$$27' \times 27' \times 0.785 \times 0.03 = 17.17 \text{ cubic feet}$$

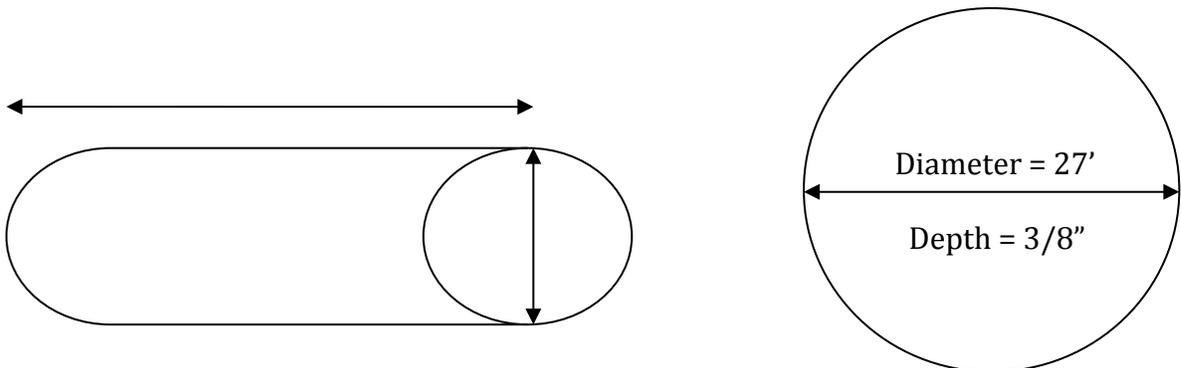
$$17.17 \text{ cubic feet} \times 7.48 \text{ gallons/cubic foot} = \underline{\underline{128 \text{ gallons}}}$$

#### Chart - A

Conversion:

Inches to Feet

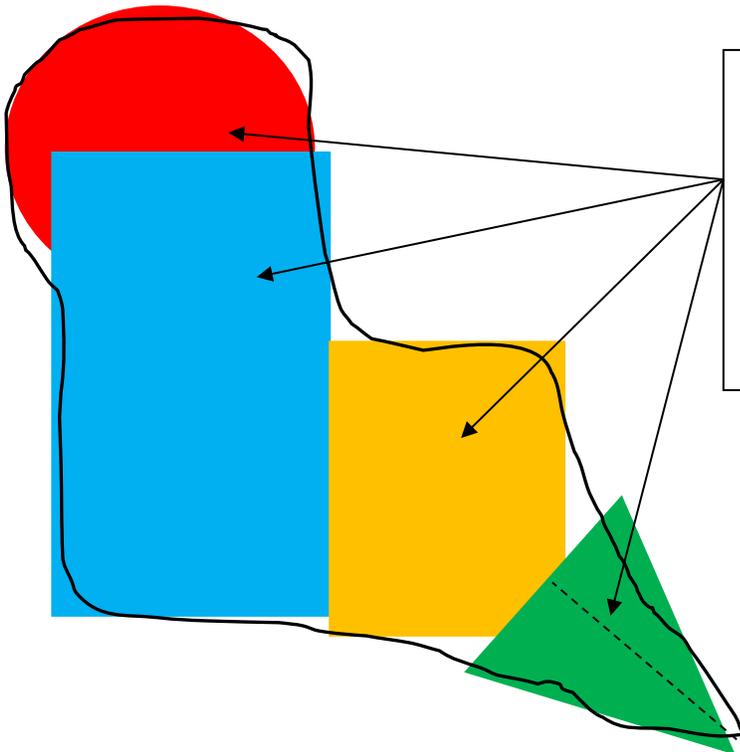
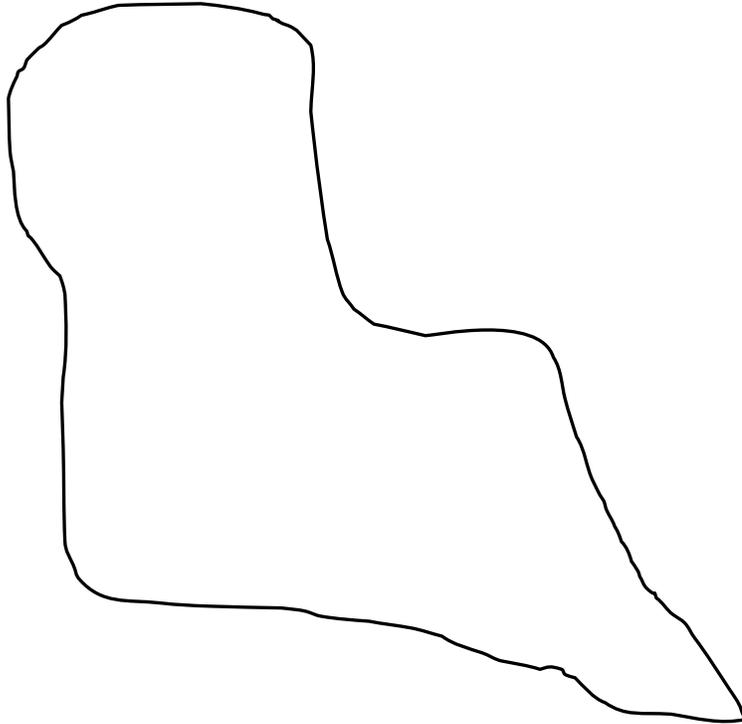
1/8"	=	0.01'
1/4"	=	0.02'
3/8"	=	0.03'
1/2"	=	0.04'
5/8"	=	0.05'
3/4"	=	0.06'
7/8"	=	0.07'
1"	=	0.08'
2"	=	0.17'
3"	=	0.25'
4"	=	0.33'
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8"	=	0.67'
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10"	=	0.83'
11"	=	0.92'
12"	=	1.00'



# Areas and Volumes

## SSO Estimation Guide

Find the geometric shapes within the shape. If this was the shape of your spill, break it down, as best you can, with the shapes we know.



1. Determine the volumes of each shape.

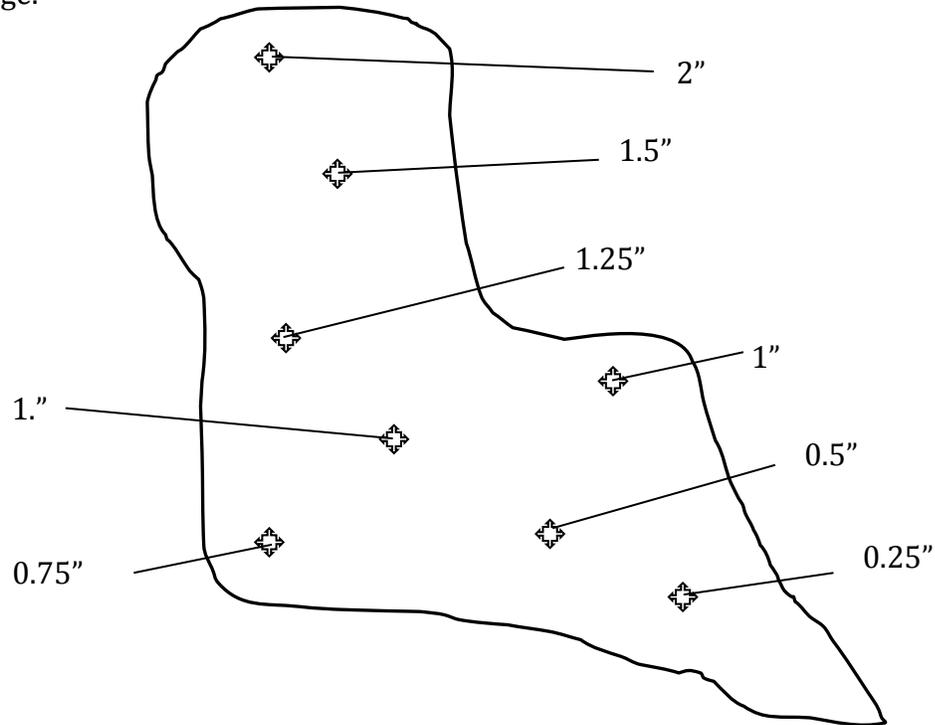
*In this example, after the volume of the circle is determined, multiply it by 55% (+/-) so that the overlap area won't be counted twice.*

2. Add all the volumes to determine total spill volume.

# Areas and Volumes

## SSO Estimation Guide

If the spill depth is of varying depths, take several measurements at different depths and find the average.



$$2'' + 1.5'' + 1.25'' + 1'' + 1'' + 0.75'' + 0.5'' + 0.25'' = 8.25''$$

$$8.25'' / 8 \text{ measurements} = 1.03''$$

Average Depth = 1.03''

# Areas and Volumes

## SSO Estimation Guide

### Step 1

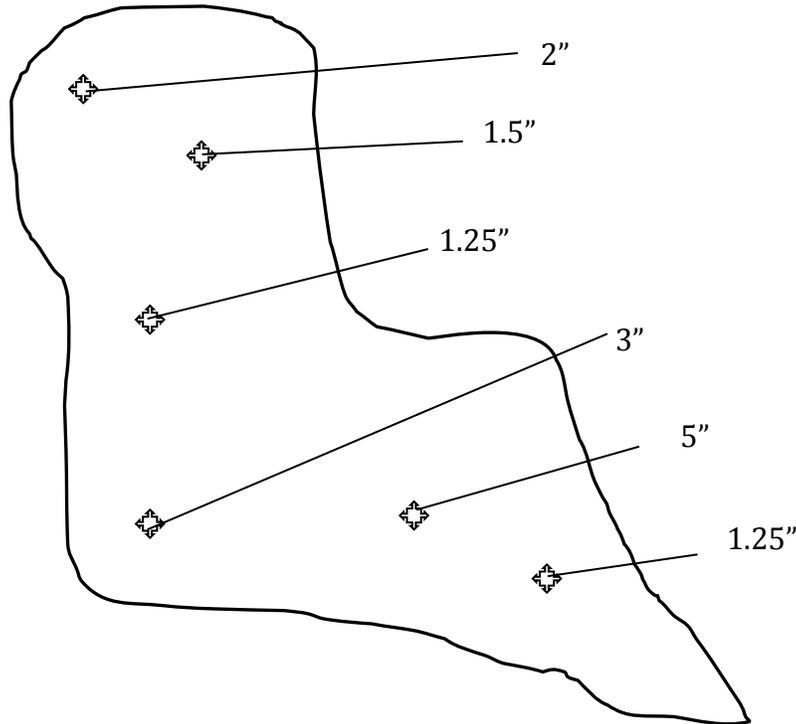
If the spill affects a dry, unimproved area such as a field or dirt parking lot, determine the Area of the wetted ground in the same manner as you would on a hard surface. Using a round-point shovel, dig down into the soil until you find dry soil. Do this in several locations within the wetted area and measure the depth of the wet soil. Average the measurement/thickness of the wet soil and determine the average depth of the wet soil.

### Step 2

**Take a Test Sample**  
( See Next Page)

**NOTE:** This can be used in a (Dry) dirt or grassy area that is not regularly irrigated like a field or a dirt parking lot.

Wet weather would make this method ineffective.



$$2'' + 1.5'' + 1.25'' + 3'' + 5'' + 1.25'' = \underline{14.0''}$$

$$14.0'' / 6 \text{ measurements} = 2.33''$$

$$\text{Average Depth} = 2.33'' (0.194')$$

### EXAMPLE:

If the Area of the spill was determined to be 128 Sq/Ft and the average depth of the wet soil is 2.33 inches:

$$128 \text{ Sq/Ft} \times 0.194' = 24.83 \text{ Cu/Ft}$$

$$24.83 \text{ Cu/Ft} \times 7.48 \text{ Gals/Cu/Ft} = 185.74 \text{ gallons}$$

$$185.74 \times 18\% = \underline{33 \text{ Gallons}} \text{ (water in soil)}$$

# Areas and Volumes

## SSO Estimation Guide

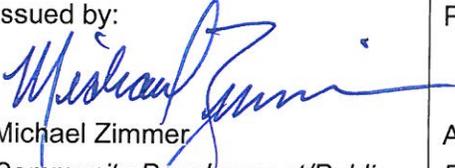
### (Test) SAMPLING SOIL FOR WATER CONTENT

Once you have determined the wetted footprint of the spill, you will want to determine the water (sewage) content in the soil.

1. Select an area of dry soil (near the wetted footprint of the spill) to sample.
2. Pour a known amount of water onto the soil and let it soak in for an adequate amount of time. If possible, use a form to keep the water contained to a geometric shape (circle, square, rectangle, etc.).
3. Determine the Area of the wetted footprint.
4. Using a small hand tool, dig down into the soil until dry soil is reached. Measure the depth of the wet soil. Do this in multiple locations and average the measurements.
5. Multiply the Area by the Average Depth of the wet soil to determine the volume of the wet soil.
6. Determine the water content in the soil
  - a. Since you started with a known amount, you know how much water is in the soil.
  - b. Divide that known amount by the volume determined in step 5 to arrive at the percent of water content in the soil.
  - c. Arrive at the water content of the soil (percent)

Example:

1. Place a 2-foot diameter form onto an area of dry soil.
2. Pour one gallon of water into the form and let it soak in for 15 minutes.
3. Pull the form and measure the Area of the wetted soil (it will likely be larger than the form). Let's say 26" diameter.
4. Dig into the soil in 3 locations and measure the depth of the wetted soil.
5. Average the 3 measurements. (Let's say 2.5", 1.5" & 3.75" = 7.75". divide by 3 = 2.58" or 0.215')
6. Determine the Area of the Circle ( $D^2 \times 0.785$ )  $2.16' \times 2.16' \times 0.785 = 3.66$  Sq/Ft
7. Multiply the Area by the Average Depth to get the Volume ( $3.66 \times 0.215' = 0.79$  Cu/Ft)
8. Multiply 0.79 cubic feet by 7.48 gallons/Cu/ft = 5.9 gallons.
9. Divide 1 Gallon (known Amount) by 5.9 gallons = .17 or 17% is the water content in the soil.
10. Now you have determined that the water content in the soil is 17%. Apply this to your actual spill area.

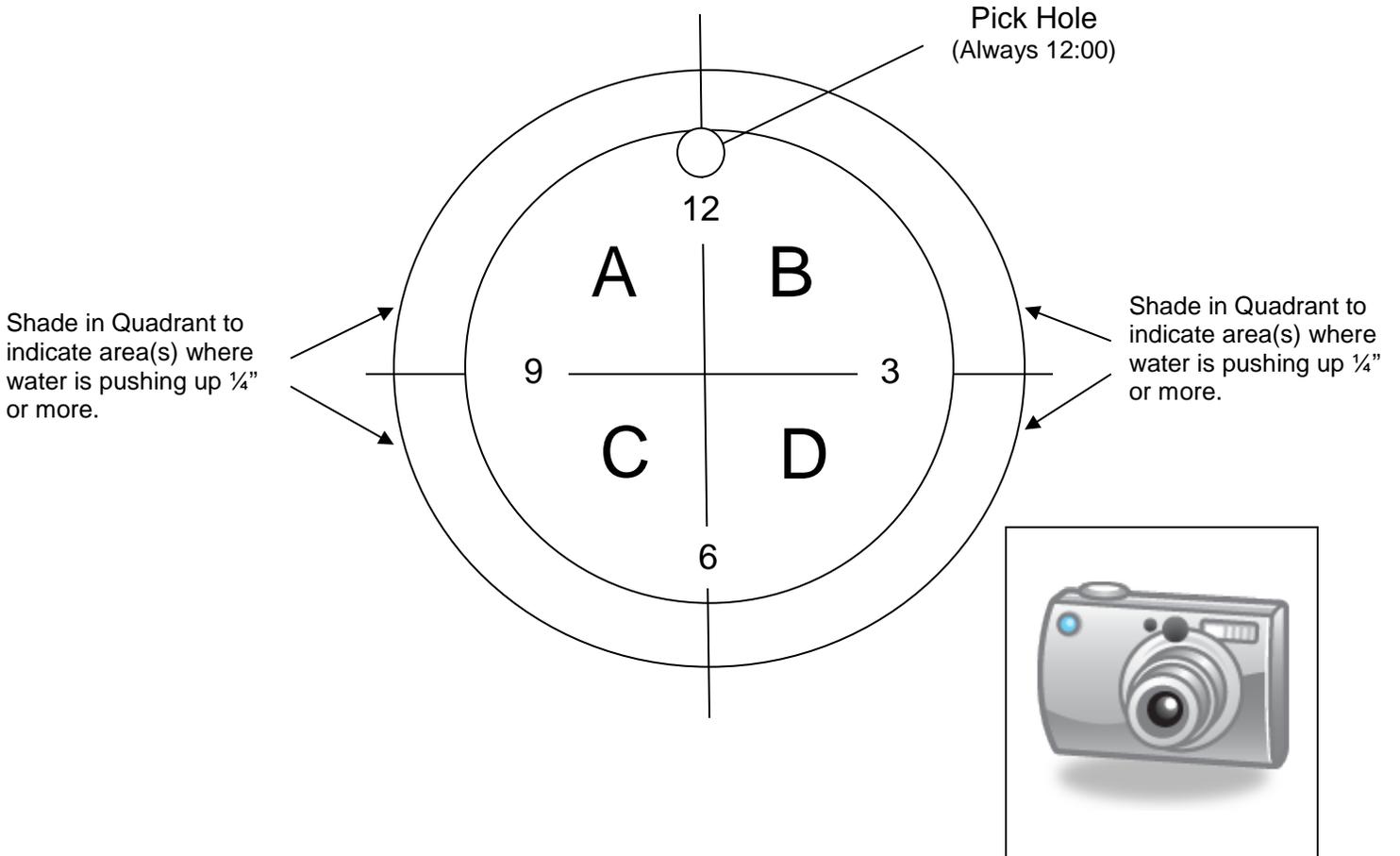
 <p><b>Standard Operating Procedure</b></p> <p>City of Pacific Grove</p>		<p>Document No.:</p> <p style="text-align: center;">SS-EOP-05</p> <p>Attachment No.: 3</p>
<p>Title:</p> <p style="text-align: center;"><b>SSO VOLUME ESTIMATION ATTACHMENT 3: Active SSO Estimation Worksheet</b></p>		<p>Revision:</p> <p style="text-align: center;">0</p>
<p>Issued by:</p>  <p>Michael Zimmer Community Development/Public Works Director, City of Pacific Grove</p>	<p>Prepared by:</p> <p>Anastasia Mylonas Engineering Associate, Wallace Group</p>	<p>Page:</p> <p style="text-align: center;">1 of 2</p> <p>Effective Date:</p> <p style="text-align: center;">6/19/2013</p>

# City of Pacific Grove Active SSO Estimation Worksheet

Manhole ID: \_\_\_\_\_ Cleanout Address: \_\_\_\_\_

Photo(s) of Manhole  Opening: 24-inch  36-inch Other: \_\_\_\_\_

Time Measurements were taken: \_\_\_\_\_:\_\_\_\_\_  AM  PM



Pick Hole Measured Height: \_\_\_\_\_ inches

**Attach Photos**

Quadrant **A** Highest Measure: \_\_\_\_\_ inches. % of Quadrant Spilling \_\_\_\_\_

Quadrant **B** Highest Measure: \_\_\_\_\_ inches. % of Quadrant Spilling \_\_\_\_\_

Quadrant **C** Highest Measure: \_\_\_\_\_ inches. % of Quadrant Spilling \_\_\_\_\_

Quadrant **D** Highest Measure: \_\_\_\_\_ inches. % of Quadrant Spilling \_\_\_\_\_

-----  
or

Measured Height from Clean Out: \_\_\_\_\_ inches (top of stack to top of water)

 <p><b>Standard Operating Procedure</b></p> <p>City of Pacific Grove</p>		<p>Document No:</p> <p style="text-align: center;">SS-EOP-06</p>
<p>Title:</p> <p style="text-align: center;">SSO MITIGATION AND CLEANUP</p>		<p>Revision:</p> <p style="text-align: center;">0</p>
<p>Issued by:</p>  <p>Michael Zimmer Community Development/Public Works Director, City of Pacific Grove</p>	<p>Prepared by:</p> <p>Anastasia Mylonas Engineering Associate, Wallace Group</p>	<p>Page:</p> <p style="text-align: center;">1 of 13</p> <p>Effective Date:</p> <p style="text-align: center;">6/19/2013</p>

**1. Purpose**

The purpose of the SSO Mitigation and Cleanup EOP is to ensure proper sanitary sewer overflows (SSOs) response activities are in place for the safe and effective response to SSOs, which occur in the City of Pacific Grove's (City's) sanitary sewer collection system.

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## 2. Location

A SSO, which requires the notification procedures included in this EOP, can occur anywhere in the City's sanitary sewer collection system. Figure 6-1 illustrates the City service area in which the sanitary sewer collection system is located.



Source: Esri, DigitalGlobe, GeoEye, Earthstar, USDA, USGS, AeroGRID, IGN, IGP, and the GIS User Community

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City of Pacific Grove  
Service Area

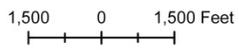


Figure 6-1: City Service Area

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### **3. Scope and Availability**

The State Water Resources Control Board's (SWRCB) Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WDR), Order No. 2006-0003-DWQ, establishes the requirement for all federal and state agencies, municipalities, counties, districts, and other public entities, which own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California, to have a program to ensure an appropriate response to all SSOs and that all reasonable steps are taken to contain and prevent the SSO from reaching waters of the United States to minimize or correct any adverse impact on the environment resulting from the SSO.

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#### 4. Definitions

Term	Definition
Business Hours	The City Administrative Office's business hours are 7:30 AM – 4:00 PM, Monday through Friday, excluding legal holidays.
Cal/OSHA	Cal/OSHA is the California Division of Occupational Health and Safety and protects workers and the publics from safety hazards through its health and safety programs.
California Code of Regulations (CCR)	The CCR is the official compilation and publication of the regulations adopted, amended, or repealed by state agencies pursuant to the Administrative Procedure Act.
California Integrated Water Quality System (CIWQS)	The online reporting system developed, hosted, and maintained by the SWRCB for compliance with the WDRs.
Category 1 SSO	All discharges of sewage resulting from a failure in City's sanitary sewer system that: <ol style="list-style-type: none"> <li>1. Equal or exceed 1000 gallons, or</li> <li>2. Result in a discharge to a drainage channel and/or surface water; or</li> <li>3. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.</li> </ol>
Category 2 SSO	All other discharges of sewage resulting from a failure in City's sanitary sewer system, which are not Category 1 SSOs.
City of Pacific Grove (City)	The City operates and maintains a sanitary sewer collection system, which conveys sewage to the wastewater treatment plant operated and maintained by Monterey Regional Water Pollution Control Agency (MRWPCA).
Code of Federal Regulations (CFR)	The CFR is the codification of the general and permanent rules published in the Federal Register by the departments and agencies of the Federal Government.
Collection	Generic term for any system of pipes, sewer lines, and lift stations used

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<b>Term</b>	<b>Definition</b>
System	to convey wastewater to a treatment facility.
Data Submitter	A Data Submitter is any individual authorized by the LRO to enter data into CIWQS, the online SSO database, on behalf of the City. In order for a person to be officially designated as a Data Submitter, they must complete the SWRCB's Data Submitter Registration Form for the SSO Database, which must be approved and signed by the City's LRO and is available on the SWRCB's website at the following link: <a href="http://www.waterboards.ca.gov/water_issues/programs/ss0/docs/datasubmitter_form.pdf">http://www.waterboards.ca.gov/water_issues/programs/ss0/docs/datasubmitter_form.pdf</a> .
Drainage Channel	A man-made canal used to transport stormwater as part of a municipal separate storm sewer system, or an intermittent or perennial stream bed.
Emergency Operating Procedure (EOP)	An EOP is a form of a standard operating procedure (SOP) for an activity associated with an emergency situation. SOP is defined below.
Green Line	Green Line is contracted by the City to provide collection system hydroflush cleaning and tree removal services and emergency call out services.
Injury and Illness Prevention Program (IIPP)	The IIPP is a basic written workplace safety program, which is required by Title 8 of the California Code of Regulations (CCR). The IPP includes eight elements: (1) Responsibility, (2) Compliance, (3) Hazard Assessment, (5) Accident/Exposure Investigation, (6) Hazard Correction, (7) Training and Instruction, and (8) Recordkeeping.
Lateral	The segment of pipe which connects a home or building to a sewer main, which is usually located beneath a street or easement.
Legally Responsible Official (LRO)	A LRO is the person designated for the City as either a principal executive officer or ranking elected official or a duly authorized representative of that person. An individual is a duly authorized representative if: <ul style="list-style-type: none"> <li>1. The authorization is made in writing by a LRO; and</li> <li>2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.</li> </ul> <p>In order for a person to be officially designated as a LRO, they must complete the SWRCB's LRO Registration Form for the SSO Database,</p>

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Term	Definition
	<p>which is available on the SWRCB's website at the following link:  <a href="http://www.waterboards.ca.gov/water_issues/programs/sso/docs/lro_for_m.pdf">http://www.waterboards.ca.gov/water_issues/programs/sso/docs/lro_for_m.pdf</a>.</p>
Monitoring and Reporting Program (MRP)	<p>Establishes monitoring, record keeping, reporting and public notification requirements as part of a waste discharge requirements (WDR). In this EOP, MRP refers to Order No. WQ 2008-0002-EXEC, which is the amended MRP for WDR Order No. 2006-0003-DWQ. Order No. 2006-DWQ is defined below under WDR.</p>
Monterey Regional Water Pollution Control Agency (MRWPCA)	<p>MRWPCA operates a regional wastewater treatment plant, which serves the following agencies: City of Pacific Grove, City of Monterey, City of Del Rey Oaks, Seaside County Sanitation District, Sand City, Fort Ord, City of Marina, Castroville Community Services District, Moss Landing, Boronda, City of Salinas, and Monterey County.</p>
Personal Protective Equipment (PPE)	<p>PPE is designed to protect workers from serious workplace injuries or illnesses resulting from contact with chemical, radiological, physical, electrical, mechanical, or other workplace hazards. PPE includes a variety of equipment, devices, and garments including, but not limited to, face shields, safety glasses, hard hats, safety shoes, goggles, coveralls, gloves, vests, earplugs, and respirators.</p> <p>PPE standards are in Title 29 of the Code of Federal Regulations (CFR), Part 1910 Subpart I, and Title 8 of the California Code of Regulations (CCR) Chapter 4.</p>
Private Lateral Sewage Discharge (PLSD)	<p>Sewage discharges that are caused by blockages or other problems within a privately owned lateral.</p>
OSHA	<p>The Occupational Safety and Health Administration, which is part of the United States Department of Labor and was created to assure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education, and assistance.</p>
Regional Water Quality Control Board (RWQCB)	<p>There are nine (9) RWQCBs in California, which are semi-autonomous and are comprised of nine (9) part-time Board Members appointed by the Governor and confirmed by the Senate. Each RWQCB makes water quality decisions for its region, including setting standards, issuing WDRs, determining compliance with those requirements, and taking</p>

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Term	Definition
	<p>appropriate enforcement action.</p> <p>The City of Pacific Grove is located in RWQCB Region 3: Central Coast, and therefore is regulated and monitored by the Central Coast RWQCB.</p>
Sanitary Sewer Overflow (SSO)	<p>Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:</p> <ol style="list-style-type: none"> <li>1. Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;</li> <li>2. Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and</li> <li>3. Wastewater backups into buildings on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.</li> </ol> <p>Temporary storage and conveyances facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.</p>
Sanitary Sewer System (SSS)	<p>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 publicly owned treatment facility. Temporary storage and conveyances facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.</p>
Sewer System Management Plan (SSMP)	<p>A system-specific plan required by the WDR, which includes provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis, and a spill response plan that establishes procedures for immediate response to a SSO in a manner designed to minimize water quality impacts and potential nuisance conditions.</p>
Spill	<p>Generic term referring to any sewage discharge (i.e., SSO or PLSD) resulting from a failure in a sanitary sewer system, privately owned</p>

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Term	Definition
	lateral, or collection system.
Standard Operating Procedure (SOP)	A SOP is a set of written instructions that document a routine or repetitive activity followed by an organization.
State Water Resources Control Board (SWRCB)	<p>The SWRCB's mission is to ensure the highest reasonable quality for waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses. The SWRCB sets statewide policy, coordinates and supports RWQCB efforts, and reviews petitions that contest RWQCB actions. SWRCB is also solely responsible for allocating surface water rights.</p> <p>The SWRCB consists of five full-time salaried Board Members, each filling a different specialty position. Each Board Member is appointed to a four-year term by the Governor and confirmed by the Senate.</p>
Untreated or Partially Treated Wastewater	Any volume of waste discharge from the sanitary sewer system upstream of a wastewater treatment plant headworks.
Waste Discharge Requirements (WDR)	<p>WDRs regulate point discharges that are exempt pursuant to California Code of Regulations Title 27, Subsection 20090, such as sewage, and are not subject to the Federal Water Pollution Control Act. Discharges of domestic sewage or treated effluent are regulated by WDRs issued pursuant to California Code of Regulations Title 23, Division 3, Chapter 9.</p> <p>In this EOP, WDR refers to the SWRCB's Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Order No. 2006-0003-DWQ, and Monitoring and Reporting Program (MRP) No. 2006-0003-DWQ as revised by Order No. WQ 2008-0002-EXEC, which requires all federal and state agencies, municipalities, counties, districts, and other public entities, which own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California to develop and implement Sewer System Management Plans and report all SSOs to SWRCB through CIWQS.</p>

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## **5. Health and Safety Warnings**

1. All SSO response activities must be conducted in a safe and efficient manner that protects City Staff, the City's contractors, and the public.
2. Employees are required to follow the City's or contractor's safety practices and procedures, whichever is more stringent. These procedures must establish guidelines in compliance with the:
  - a. Occupational Health and Safety Administration (OSHA);
  - b. California Division of Occupational Safety and Health (Cal/OSHA);
  - c. City of Pacific Grove's Illness and Injury Prevention Program (IIPP); and
  - d. City of Pacific Grove requirements and standards.
3. Multiple hazards exist in the performance of SSO response. The following are some of the more common hazards to be aware of:
  - a. Traffic in the vicinity of SSO response activities
  - b. Distracted drivers
  - c. Members of the public interested in SSO response activities
  - d. Slips, trips, and falls
  - e. Falling objects
  - f. Infections and disease
  - g. Poisonous/toxic gases
  - h. Strains and back injuries
  - i. Bites (insects, bugs, rodents, etc.)
  - j. Drowning
  - k. Noise
  - l. Weather conditions

## **6. Cautions**

1. Ensure that all equipment is used correctly. If the City has a SOP for using that equipment, it must be followed.
2. Ensure that the SSO response activities are sufficiently documented through written documentation and photographs.

## **7. Interferences**

1. Equipment must be used according to the manufacturer's standards and to the City's SOPs in order to obtain accurate results.
2. The SSO Report submitted in CIWQS must be supported by documentation if it is to be considered accurate and defensible. Documentation for why certain response activities could not be accomplished is also imperative for reporting the SSO. Therefore, City Staff must ensure that the SSO response activities are sufficiently documented through written documentation and photographs.

## **8. Personnel Qualifications and Responsibilities**

1. Wastewater Field Supervisor
  - a. Responsible for the SSO response, mitigation, and cleanup activities.
  - b. Responsible for training all City Staff and contractors responsible for SSO Response are trained on this EOP annually.

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- c. Responsible for managing, maintaining, and updating this EOP.
- 2. First Responder
  - a. Responsible for the SSO response, mitigation, and cleanup activities until the Wastewater Field Supervisor arrives to the SSO site or for the entire duration of the SSO if the Wastewater Field Supervisor is unable to respond.
- 3. City Staff and Contractors Responsible for SSO Response, Mitigation, and Cleanup
  - a. Required to be trained on this EOP annually.
- 4. Legally Responsible Official (LRO)
  - a. Responsible for review, certifying, and submitting any reports regarding the SSO response, mitigation, and cleanup activities to the SWRCB, RWQCB, and EPA.
  - b. Can also be responsible for entering the SSO information, including the SSO response, mitigation, and cleanup activities, into the SSO Report in CIWQS.
  - c. Required to be trained on this EOP annually.
- 5. Data Submitter
  - a. Responsible for entering the SSO information, including SSO response, mitigation, and cleanup activities, into the SSO Report in CIWQS.
  - b. Required to be trained on this EOP annually.
- 6. Fire Department
  - a. Responsible for ensuring that their Staff is training in SSO response, mitigation, and cleanup.
  - b. Responsible for ensuring that their Staff is trained on and employs all of the health and safety requirements and precautions during SSO response, mitigation, and cleanup activities.

## **9. Equipment and Supplies**

- 1. Personal Protective Equipment (PPE):
  - a. Gloves
  - b. Rubber Boots
  - c. Safety Glasses
  - d. Flashlights
  - e. Safety Vest
- 2. SSO Cleanup Equipment:
  - a. Hydrovac Truck
  - b. Sewer Bypass Pump
  - c. Bleach
  - d. Shovels
  - e. Rakes
  - f. Sandbags
  - g. Plugs
  - h. Plastic Tarps
  - i. Visqueen
- 3. Attachment 1 of this EOP, SSO Response Field Checklist
- 4. SS-EOP-05: SSO Volume Estimation
- 5. SS-EOP-07: Water Quality Monitoring and SSO Impact Assessment

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## 10. Procedure

### SSO Mitigation and Cleanup

1. Assess the conditions surrounding and involving the SSO event.
  - a. Determine if additional staff will be necessary to contain, mitigate, and clean the SSO while maintaining safe and secure SSO response activities.
  - b. If City Staff needs assistance, Vince Gentry, the Wastewater Field Supervisor, or the first responder will call County Com at (831) 647-7911, which contacts dispatch for the Police and Fire Departments.
  - c. If City Staff needs further assistance, Vince Gentry or the first responder calls Green Line at (831) 422-3279 per the City's contract with Green Line for Emergency Call Out Services.
2. Take photographs of the SSO site if possible for use in SSO calculations and reporting and to document all of the City's SSO response activities.
3. Document SSO characteristics and mitigation activities in Attachment 1 of this EOP, SSO Response Field Checklist.
4. If the SSO is flowing at a high rate and is of large volume, it may be necessary to use the Hydrovac truck or bypass pump to clear the downstream manhole.
5. Contain the SSO as much as possible using sandbags, tarps, visqueen, etc.
6. Plug upstream and downstream portions of impacted stormdrains when applicable and recover any sewage for disposal to the sewer system.
7. Estimate the volume of the SSO as outlined in SS-EOP-05: SSO Volume Estimation and monitor the SSO flow rate.
8. Troubleshoot the cause of the SSO by going to downstream manholes to establish the location of the cause of the SSO, such as a blockage.
9. Clear any blockages by jetting the lines using the appropriate cleaning tools. City Staff should set up a jetter downstream of the blockage and hydroclean upstream from a clear manhole. Flows should be observed to ensure a blockage does not occur downstream. Capture as much of the material causing the blockage as possible.
10. Vacuum or pump up any spilled sewage and discharge it back to the sanitary sewer system
11. When the lines are clear, apply a weak, 10% bleach to the area to disinfect the area. Let the bleach dry and sweep/shovel any residual materials. Bleach should not be applied during wet weather.
12. Rake or sweep up and properly dispose of solids to the extent possible.
13. Estimate the volume of the SSO as outlined in SS-EOP-05: SSO Volume Estimation if the SSO volume was not estimated earlier, and complete the SSO Response Spill Estimation Form as described and provided in SS-EOP-05: SSO Volume Estimation.
14. Complete Attachment 1 of this EOP, SSO Response Field Checklist.
15. If the SSO reaches a waterbody, refer to SS-EOP-07: Water Quality Monitoring and SSO Impact Assessment.

### Force Main SSOs

1. If a SSO resulting from a leak or break in a force main, containment and SSO response activities should proceed as described above.

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2. The lift station connected to the leaking force main should be turned off and bypass procedures should be implemented until the leak can be repaired.
3. The Hydrovac truck and bypass pump should be used to either begin removing wastewater from the SSO site, discharging the wastewater back into the sanitary sewer system, or assisting with lift station bypass procedures.

### **Prolonged SSO Response**

1. If normal mitigation efforts are unsuccessful and the source of the SSO cannot be cleared by standard Hydrovac jetting, other methods may be necessary to stop the SSO.
2. If excavation is identified as the only method of clearing the blockage, Staff should contact the Wastewater Field Supervisor to implement a plan to excavate and take additional steps as necessary.
3. Depending on the volume of the SSO, additional pumper trucks or portable bypass pumping may be necessary to keep the SSO containment area from breaching the contained area.

## **11. Data and Records Management**

1. SSO response, mitigation, and cleanup activities must be documented in Attachment 1 of this EOP, SSO Response Field Checklist.
2. Individual SSO records shall be maintained for a minimum of five (5) years from the date of the SSO. This period may be extended when requested by a RWQCB Executive Officer.
3. All records shall be made available for review upon SWRCB or RWQCB Staff's request.
4. SSO records, which must be retained include, but are not limited to:
  - a. Record of Certified report, as submitted to CIWQS;
  - b. All original recordings for continuous monitoring instrumentation;
  - c. Service call records and complaint logs of calls received;
  - d. SSO calls;
  - e. SSO records;
  - f. Steps that have been and will be taken to prevent the SSO from recurring and a schedule to implement those steps;
  - g. Work orders, work completed, and any other maintenance records from the previous five (5) years which are associated with responses and investigations of system problems related to SSOs;
  - h. A list and description of complaints from customers or others from the previous five (5) years; and
  - i. Documentation of performance and implementation measures for the previous five (5) years.
5. If water quality samples are required as a result of any SSO, records of monitoring information shall include the:
  - a. Date, exact place, and time of sampling measurements;
  - b. Individual(s) who performed the sampling or measurements;
  - c. Date(s) analyses were performed;
  - d. Individuals who performed the analyses;

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- e. Analytical technique or method used; and
- f. Results of such analyses.

**12. Quality Control and Quality Assurance**

- 1. The Wastewater Field Supervisor reviews all SSO Field Reports.
- 2. The Data Submitter will enter and save the SSO Report in CIWQS as a Draft Report.
- 3. The LRO will review the SSO Report, make any needed changes, and certify the final SSO Report in CIWQS.

**13. References**

- 1. SS-EOP-05: Volume Estimation
- 2. SS-EOP-07: Water Quality Monitoring and SSO Impact Assessment
- 3. WDR: Order No. 2006-0003-DWQ

**14. Attachments**

- 1. SSO Response Field Checklist

 <p><b>Standard Operating Procedure</b></p> <p>City of Pacific Grove</p>		<p>Document No.:</p> <p style="text-align: center;">SS-EOP-06</p> <p>Attachment No.: 1</p>
<p>Title:</p> <p style="text-align: center;">SSO MITIGATION AND CLEANUP ATTACHMENT 1: SSO Field Response Checklist</p>		<p>Revision:</p> <p style="text-align: center;">0</p>
<p>Issued by:</p>  <p>Michael Zimmer Community Development/Public Works Director City of Pacific Grove</p>	<p>Prepared by:</p> <p>Anastasia Mylonas Engineering Associate, Wallace Group</p>	<p>Page:</p> <p style="text-align: center;">1 of 6</p> <p>Effective Date:</p> <p style="text-align: center;">6/19/2013</p>

**City of Pacific Grove  
SSO Response Field Checklist**

**REPORTED BY**

Call Address: \_\_\_\_\_

Caller Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Receipt of Call: Date: \_\_\_\_/\_\_\_\_/\_\_\_\_ Time: \_\_\_\_:\_\_\_\_  AM  PM Call Received By: \_\_\_\_\_

**SPILL START TIME NOTES**

Caller Interview: Is sewage spilling?  Yes  No  
If Yes, From: Manhole  PLCO  Two-Way C/O   
Inside Building  Wet Well

Time Caller noticed spill: \_\_\_\_:\_\_\_\_  AM  PM  N/A

Comments: \_\_\_\_\_

If spill is Yes: Last time Caller observed NO Spill occurring: \_\_\_\_:\_\_\_\_  AM  PM Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Comments: \_\_\_\_\_

Ask Caller to describe spill: \_\_\_\_\_

*Suggested Questions: Is it currently spilling? How would you compare it to a garden hose running full? How big would you say the wet stain is – compared to your driveway? What else can you tell me?*

Arrival Time: \_\_\_\_:\_\_\_\_  AM  PM

SSO Discovery \_\_\_\_:\_\_\_\_  AM  PM



On Site Interview 1: Name/Address: \_\_\_\_\_

Observation Description: \_\_\_\_\_

\_\_\_\_\_ Time Observed Spill: \_\_\_\_:\_\_\_\_  AM  PM  N/A

On Site Interview 2: Name/Address: \_\_\_\_\_

Observation Description: \_\_\_\_\_

\_\_\_\_\_ Time Observed Spill: \_\_\_\_:\_\_\_\_  AM  PM  N/A

**\*\* Attempts should be made to interview at least two (2) others in addition to the Caller.  
If nobody is available, document attempts (by address or passer-by) \*\***

**City of Pacific Grove  
SSO Response Field Checklist**

**SPILL LOCATION**



Observed: Spill from:  Manhole ID \_\_\_\_\_  Lift Station ID \_\_\_\_\_

Clean Out Address \_\_\_\_\_

Comments: \_\_\_\_\_

Building Address \_\_\_\_\_

Comments: \_\_\_\_\_

Spill Destination:  Building  Paved Surface  Storm Sys  Street/Curb/Gutter  Unpaved  Water

Did spill reach:  Drainage Channel  Surface Water  Exceed 1000 Gals  ++Storm System

(If Yes, this is a Category 1 Spill, ++ unless fully captured/returned)

Discovered Enter Waterway \_\_\_\_\_:\_\_\_\_ AM PM  N/A

Determined Spill Category to be: \_\_\_\_\_:\_\_\_\_ AM PM **\*\* If Cat.,1 Contact Supervisor \*\***

**SPILL RATE NOTES**



If Currently Spilling: Complete the "Active" Spill Estimation Worksheet

NOTE: This must be performed prior to clearing the blockage or removing the MH lid.

\*\*\* If Mainline blockage - inspect first **MANHOLE DOWNSTREAM** of blockage and note flow rate below \*\*\*

No Flow in Channel  Trickle flow in Channel  Depth of flow in Channel \_\_\_\_\_ inches

Time: \_\_\_\_\_:\_\_\_\_  AM  PM Describe how measurement was taken: \_\_\_\_\_

\_\_\_\_\_

**CAUSE OF SPILL**

Failed at:  Mainline  Lower Lat.  Upper Lat.  Force Main  Lift Station Wet Well  \_\_\_\_\_

Spill Cause:  Roots  Grease  Debris  Vandalism  Capacity  Design  Lift Sta. Fail  \_\_\_\_\_

Spill cause to be determined by CCTV inspection (Attach TV Report to this form)

**City of Pacific Grove  
SSO Response Field Checklist**

---

**SPILL CONTAINMENT**



Containment Implemented:      \_\_\_\_:\_\_\_\_ AM    PM

Containment Measures: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

---

**CLEAN UP**



Clean Up begin:      \_\_\_\_:\_\_\_\_ AM    PM      Gallons Used for Clean Up \_\_\_\_\_ Gallons Retrieved \_\_\_\_\_

Clean Up Complete:      \_\_\_\_:\_\_\_\_ AM    PM      Water De-Chlorinated     Yes     No

Describe Clean Up Operations: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

---

**OTHER IMPORTANT MILESTONES**

Contacted Supervisor:      \_\_\_\_:\_\_\_\_ AM    PM      \_\_\_\_\_

Requested Additional Men/Equip:      \_\_\_\_:\_\_\_\_ AM    PM      \_\_\_\_\_

Spill End Time:      \_\_\_\_:\_\_\_\_ AM    PM      \_\_\_\_\_

Departure Time:      \_\_\_\_:\_\_\_\_ AM    PM      \_\_\_\_\_

\_\_\_\_\_:\_\_\_\_ AM    PM      \_\_\_\_\_

\_\_\_\_\_:\_\_\_\_ AM    PM      \_\_\_\_\_

\_\_\_\_\_:\_\_\_\_ AM    PM      \_\_\_\_\_

**City of Pacific Grove**  
**SSO Response Field Checklist**

**REGULATORY AGENCY NOTIFICATION**

Report to Cal EMA: \_\_\_\_\_:\_\_\_\_ AM PM (Category 1 Only) **(800) 852-7550** By: \_\_\_\_\_

└─> Control Number provided by Cal EMA: \_\_\_\_\_  
└─> Name of Person Contacted: \_\_\_\_\_ or Left Message:

Report to RWQCB: \_\_\_\_\_:\_\_\_\_ AM PM (Category 1 or 2) **(805) 549-3147** By: \_\_\_\_\_

└─> Name of Person Contacted: \_\_\_\_\_ or Left Message:

Report to Monterey Co. Env. Health \_\_\_\_\_:\_\_\_\_ AM PM (Category 1 or 2) **(800) 253-2687** By: \_\_\_\_\_

└─> Name of Person Contacted: \_\_\_\_\_ or Left Message:

Report to Monterey Co. OES \_\_\_\_\_:\_\_\_\_ AM PM (Category 1 Only) **(831) 796-1900** By: \_\_\_\_\_

└─> Name of Person Contacted: \_\_\_\_\_ or Left Message:

Report to CDFW \_\_\_\_\_:\_\_\_\_ AM PM (Category 1 Only) **(831) 649-2817** By: \_\_\_\_\_

└─> Name of Person Contacted: \_\_\_\_\_ or Left Message:

Report to MRWPCA \_\_\_\_\_:\_\_\_\_ AM PM (Category 1 Only) **(831) 422-1001** By: \_\_\_\_\_

└─> Name of Person Contacted: \_\_\_\_\_ or Left Message:

Report to US Coast Guard \_\_\_\_\_:\_\_\_\_ AM PM (Category 1 Only) **(831) 647-7300** By: \_\_\_\_\_

└─> Name of Person Contacted: \_\_\_\_\_ or Left Message:

Report to NOAA \_\_\_\_\_:\_\_\_\_ AM PM (Category 1 Only) **(831) 902-2778** By: \_\_\_\_\_

└─> Name of Person Contacted: \_\_\_\_\_ or Left Message:

Report to MBNMS \_\_\_\_\_:\_\_\_\_ AM PM (Category 1 Only) **(831) 647-4217** By: \_\_\_\_\_

└─> Name of Person Contacted: \_\_\_\_\_ or Left Message:

Report to Monterey Bay Aquarium \_\_\_\_\_:\_\_\_\_ AM PM (If SSO @ Intake) **(831) 648-4974** By: \_\_\_\_\_

└─> Name of Person Contacted: \_\_\_\_\_ or Left Message:

Report to Hopkins \_\_\_\_\_:\_\_\_\_ AM PM (If SSO @ Intake) **(831) 655-6245** By: \_\_\_\_\_

└─> Name of Person Contacted: \_\_\_\_\_ or Left Message:

Report to \_\_\_\_\_:\_\_\_\_ AM PM Phone: \_\_\_\_\_ By: \_\_\_\_\_

└─> Name of Person Contacted: \_\_\_\_\_ or Left Message:



 <p><b>Standard Operating Procedure</b></p> <p>City of Pacific Grove</p>		<p>Document No:</p> <p style="text-align: center;">SS-EOP-07</p>
<p>Title:</p> <p style="text-align: center;">WATER QUALITY MONITORING AND SSO IMPACT ASSESSMENT</p>		<p>Revision:</p> <p style="text-align: center;">0</p>
<p>Issued by:</p>  <p>Michael Zimmer Community Development/Public Works Director, City of Pacific Grove</p>	<p>Prepared by:</p> <p>Anastasia Mylonas Engineering Associate, Wallace Group</p>	<p>Page:</p> <p style="text-align: center;">1 of 18</p> <p>Effective Date:</p> <p style="text-align: center;">6/19/2013</p>

**1. Purpose**

The purpose of the Water Quality Monitoring and SSO Impact Assessment EOP is to ensure proper water quality monitoring is conducted and an effective SSO impact assessment is completed in response to the occurrence of a sanitary sewer overflow (SSO) discharging to the Pacific Ocean in order to protect public and environmental health.

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## 2. Location

A SSO, which requires the water quality monitoring and SSO impact assessment procedures included in this EOP, can occur on any of the beaches in the City's service area, which is illustrated in Figure 7-1.



Source: Esri, DigitalGlobe, GeoEye, Earthstar, USDA, USGS, AeroGRID, IGN, IGP, and the GIS User Community

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WALLACE SIMMONS INTERNATIONAL



City of Pacific Grove  
Service Area

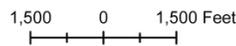


Figure 7-1: City Service Area

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### **3. Scope and Availability**

The State Water Resources Control Board's (SWRCB) Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WDR), Order No. 2006-0003-DWQ, establishes the requirement for all federal and state agencies, municipalities, counties, districts, and other public entities, which own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California, to have a program to ensure that all reasonable steps are taken to contain and prevent the SSO from reaching waters of the United States to minimize or correct any adverse impact on the environment resulting from the SSO, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

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#### 4. Definitions

Term	Definition
Business Hours	The City Administrative Office's business hours are 7:30 AM – 4:00 PM, Monday through Friday, excluding legal holidays.
Cal/OSHA	Cal/OSHA is the California Division of Occupational Health and Safety and protects workers and the public from safety hazards through its health and safety programs.
California Code of Regulations (CCR)	The CCR is the official compilation and publication of the regulations adopted, amended, or repealed by state agencies pursuant to the Administrative Procedure Act.
California Department of Fish and Wildlife (CDFW)	CDFW (formerly "Department of Fish and Game") maintains native fish, wildlife, plant species and natural communities for their intrinsic and ecological value and their benefits to people. This includes habitat protection and maintenance in a sufficient amount and quality to ensure the survival of all species and natural communities.
California Emergency Management Agency (Cal EMA)	<p>Cal EMA was established on January 1, 2009 and merged the duties, powers, and responsibilities of the former California Governor's Office of Emergency Services (OES) with those of the California Governor's Office of Homeland Security.</p> <p>Cal EMA is responsible for the coordination of overall state agency response to major disasters in support of local government. The Agency is responsible for assuring the state's readiness to respond to and recover from hazards – natural, manmade, war-caused emergencies and disasters – and for assisting local governments in their emergency preparedness, response, recover, and hazard mitigation efforts. Sanitary sewer overflows are one of these hazards.</p>
California Integrated Water Quality System (CIWQS)	The online reporting system developed, hosted, and maintained by the SWRCB for compliance with the WDRs.
Category 1 SSO	<p>All discharges of sewage resulting from a failure in City's sanitary sewer system that:</p> <ol style="list-style-type: none"> <li>1. Equal or exceed 1000 gallons, or</li> <li>2. Result in a discharge to a drainage channel and/or surface</li> </ol>

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Term	Definition
	<p>water; or</p> <p>3. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.</p>
Category 2 SSO	All other discharges of sewage resulting from a failure in City's sanitary sewer system, which are not Category 1 SSOs.
City of Pacific Grove (City)	The City operates and maintains a sanitary sewer collection system, which conveys sewage to the wastewater treatment plant operated and maintained by Monterey Regional Water Pollution Control Agency (MRWPCA).
Code of Federal Regulations (CFR)	The CFR is the codification of the general and permanent rules published in the Federal Register by the departments and agencies of the Federal Government.
Collection System	Generic term for any system of pipes, sewer lines, and lift stations used to convey wastewater to a treatment facility.
Data Submitter	A Data Submitter is any individual authorized by the LRO to enter data into CIWQS, the online SSO database, on behalf of the City. In order for a person to be officially designated as a Data Submitter, they must complete the SWRCB's Data Submitter Registration Form for the SSO Database, which must be approved and signed by the City's LRO and is available on the SWRCB's website at the following link: <a href="http://www.waterboards.ca.gov/water_issues/programs/ssso/docs/datasubmitter_form.pdf">http://www.waterboards.ca.gov/water_issues/programs/ssso/docs/datasubmitter_form.pdf</a> .
Drainage Channel	A man-made canal used to transport stormwater as part of a municipal separate storm sewer system, or an intermittent or perennial stream bed.
E. Coli	E. Coli is a type of fecal coliform bacteria commonly found in the intestines of warm blooded animals, such as humans. E. Coli is short for <i>Escherichia coli</i> , and its presence is a strong indicator of recent sewage or animal waste contamination.
Emergency Operating Procedure (EOP)	An EOP is a form of a standard operating procedure (SOP) for an activity associated with an emergency situation. SOP is defined below.
Enterococcus	These bacteria are a subgroup within the fecal streptococcus group. They are distinguished by their ability to survive in salt water. This

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Term	Definition
	<p>group is more human-specific than the larger fecal streptococcus group.</p> <p>EPA recommends enterococcus as the best indicator of health risk in salt water used for recreation and as a useful indicator in fresh water as well.</p>
Environmental Protection Agency (EPA)	<p>United States EPA's mission is to protect human health and the environment. EPA works to accomplish this mission through writing and enforcing federal regulations and policies and identifying, initiating national efforts to reduce environmental risk are based on the best available scientific information and identifying measurable environmental and human health outcomes and how EPA plans to achieve those results.</p>
Fecal Coliform	<p>Fecal coliforms are a subset of total coliform bacteria and are more fecal-specific in origin. However, this group contains <i>Klebsiella</i>, which is a genus associated with textile, pulp, and paper mill wastes.</p> <p>Fecal coliforms are commonly used in many states, including California, as the indicator bacteria.</p>
Fecal Indicator Bacteria (FIB)	<p>Bacteria, such as total coliform, fecal coliform, and enterococcus, are collectively known as fecal indicator bacteria and indicate the potential presence of disease causing organisms.</p> <p>The best indicators of health risk from recreational water contact in salt water are enterococcus and are known as Salt Water FIB. The best indicators of health risk from recreational water contact in fresh water are E. coli and enterococcus and are known as Fresh Water FIB.</p>
Genus	<p>A category of biological classification ranking between the family and the species, comprising structurally or phylogenetically related species or an isolated species exhibiting unusual differentiation, and being designated by a Latin or Latinized capital singular noun.</p>
Green Line	<p>Green Line is contracted by the City to provide collection system hydroflush cleaning and tree root removal services and emergency call out services.</p>
Injury and Illness Prevention Program (IIPP)	<p>The IIPP is a basic written workplace safety program, which is required by Title 8 of the California Code of Regulations (CCR). The IPP includes eight elements: (1) Responsibility, (2) Compliance, (3) Hazard Assessment, (5) Accident/Exposure Investigation, (6) Hazard Correction, (7) Training and Instruction, and (8) Recordkeeping.</p>

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<b>Term</b>	<b>Definition</b>
Lateral	The segment of pipe which connects a home or building to a sewer main, which is usually located beneath a street or easement.
Legally Responsible Official (LRO)	<p>A LRO is the person designated for the City as either a principal executive officer or ranking elected official or a duly authorized representative of that person. An individual is a duly authorized representative if:</p> <ol style="list-style-type: none"> <li>1. The authorization is made in writing by a LRO; and</li> <li>2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.</li> </ol> <p>In order for a person to be officially designated as a LRO, they must complete the SWRCB's LRO Registration Form for the SSO Database, which is available on the SWRCB's website at the following link: <a href="http://www.waterboards.ca.gov/water_issues/programs/ssso/docs/lro_form.pdf">http://www.waterboards.ca.gov/water_issues/programs/ssso/docs/lro_form.pdf</a>.</p>
Monitoring and Reporting Program (MRP)	Establishes monitoring, record keeping, reporting and public notification requirements as part of a waste discharge requirements (WDR). In this EOP, MRP refers to Order No. WQ 2008-0002-EXEC, which is the amended MRP for WDR Order No. 2006-0003-DWQ. Order No. 2006-DWQ is defined below under WDR.
Monterey County (Co.) Environmental Health Services (EHS)	Monterey Co. EHS is a division of Monterey Co. Public Health Department and prevents exposure to toxic substances, diseases, unsanitary conditions, and other environmental hazards through education and enforcement. Programs include hazardous materials management, food safety, water quality, recreational water and swimming pool monitoring, and solid waste facility oversight.
Monterey County (Co.) Office of Emergency Services (OES)	Monterey Co. OES is committed to serving the public before, during, and after times of emergency by promoting effective coordination between agencies, and encouraging preparedness of the public and organizations involved in emergency response. Monterey Co. OES, in coordination with local, state, and emergency response organizations, works continuously to better prepare and respond to any disaster the community may face.
Monterey County Public Health Department	Monterey Co. Public Health Department improves and maintains community health by identifying health issues, preventing disease and injury, influencing policy development, and promoting healthy behaviors through leadership, collaborative partnerships, education, direct services, surveillance, and case management and payment for eligible

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Term	Definition
	indigent medical care.
Monterey Regional Water Pollution Control Agency (MRWPCA)	MRWPCA operates a regional wastewater treatment plant, which serves the following agencies: City of Pacific Grove, City of Monterey, City of Del Rey Oaks, Seaside County Sanitation District, Sand City, Fort Ord, City of Marina, Castroville Community Services District, Moss Landing, Boronda, City of Salinas, and Monterey County.
Personal Protective Equipment (PPE)	<p>PPE is designed to protect workers from serious workplace injuries or illnesses resulting from contact with chemical, radiological, physical, electrical, mechanical, or other workplace hazards. PPE includes a variety of equipment, devices, and garments including, but not limited to, face shields, safety glasses, hard hats, safety shoes, goggles, coveralls, gloves, vests, earplugs, and respirators.</p> <p>PPE standards are in Title 29 of the Code of Federal Regulations (CFR), Part 1910 Subpart I, and Title 8 of the California Code of Regulations (CCR) Chapter 4.</p>
Private Lateral Sewage Discharge (PLSD)	Sewage discharges that are caused by blockages or other problems within a privately owned lateral.
OSHA	The Occupational Safety and Health Administration, which is part of the United States Department of Labor and was created to assure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education, and assistance.
Regional Water Quality Control Board (RWQCB)	<p>There are nine (9) RWQCBs in California, which are semi-autonomous and are comprised of nine (9) part-time Board Members appointed by the Governor and confirmed by the Senate. Each RWQCB makes water quality decisions for its region, including setting standards, issuing WDRs, determining compliance with those requirements, and taking appropriate enforcement action.</p> <p>The City of Pacific Grove is located in RWQCB Region 3: Central Coast, and therefore is regulated and monitored by the Central Coast RWQCB.</p>
Sanitary Sewer Overflow	Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs

Term	Definition
(SSO)	<p>include:</p> <ol style="list-style-type: none"> <li>1. Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;</li> <li>2. Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and</li> <li>3. Wastewater backups into buildings on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.</li> </ol> <p>Temporary storage and conveyances facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.</p>
Sanitary Sewer System (SSS)	<p>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 publicly owned treatment facility. Temporary storage and conveyances facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.</p>
Sewer System Management Plan (SSMP)	<p>A system-specific plan required by the WDR, which includes provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis, and a spill response plan that establishes procedures for immediate response to a SSO in a manner designed to minimize water quality impacts and potential nuisance conditions.</p>
Spill	<p>Generic term referring to any sewage discharge (i.e., SSO or PLSD) resulting from a failure in a sanitary sewer system, privately owned lateral, or collection system.</p>
Standard Operating Procedure (SOP)	<p>A SOP is a set of written instructions that document a routine or repetitive activity followed by an organization.</p>
State Water Resources	<p>The SWRCB's mission is to ensure the highest reasonable quality for waters of the State, while allocating those waters to achieve the</p>

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Term	Definition
Control Board (SWRCB)	<p>optimum balance of beneficial uses. The SWRCB sets statewide policy, coordinates and supports RWQCB efforts, and reviews petitions that contest RWQCB actions. SWRCB is also solely responsible for allocating surface water rights.</p> <p>The SWRCB consists of five full-time salaried Board Members, each filling a different specialty position. Each Board Member is appointed to a four-year term by the Governor and confirmed by the Senate.</p>
Total Coliform	<p>Total coliform is a group of bacteria that are widespread in nature. All members occur in human feces, but some can also be present in other items, such as animal manure, soil, and submerged wood.</p>
Untreated or Partially Treated Wastewater	<p>Any volume of waste discharge from the sanitary sewer system upstream of a wastewater treatment plant headworks.</p>
Waste Discharge Requirements (WDR)	<p>WDRs regulate point discharges that are exempt pursuant to California Code of Regulations Title 27, Subsection 20090, such as sewage, and are not subject to the Federal Water Pollution Control Act. Discharges of domestic sewage or treated effluent are regulated by WDRs issued pursuant to California Code of Regulations Title 23, Division 3, Chapter 9.</p> <p>In this EOP, WDR refers to the SWRCB's Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Order No. 2006-0003-DWQ, and Monitoring and Reporting Program (MRP) No. 2006-0003-DWQ as revised by Order No. WQ 2008-0002-EXEC, which requires all federal and state agencies, municipalities, counties, districts, and other public entities, which own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California to develop and implement Sewer System Management Plans and report all SSOs to SWRCB through CIWQS.</p>

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## **5. Health and Safety Warnings**

1. Review the local sea/swell and weather report for local ocean conditions.
2. Always take two (2) people to the beach when coming into contact with the Pacific Ocean.
3. One person should always be faced toward the ocean to watch for rip currents, hazardous surf, and sneaker waves.
4. Do not enter surf to take samples if it is too hazardous to do so and/or the beach is posted as unsafe due to hazardous surf conditions.
5. Sample when it is safe to do so. If that means delaying the sampling, document that it was unsafe to sample with photographic evidence if possible and wait until it is safe.
6. Wear appropriate personal protective equipment (PPE) and disinfect waders or boots with a weak bleach solution if they come into contact with the water.

## **6. Cautions**

1. Do not enter the Pacific Ocean to sample under hazardous surf or high swell conditions.
2. Do not sample during or immediately after a rain event. The results will be inconclusive.
  - a. Sampling can occur after the rain event once Monterey County Environmental Health Services Staff has determined that the rain event will no longer cause inconclusive sample results.

## **7. Interferences**

1. Samples must be collected in a sterile sample bottle. Do not use a reusable sample bottle.
2. Always sample in knee-deep water and take the sample at mid-depth. Avoid surface scum.

## **8. Personnel Qualifications and Responsibilities**

1. Community Development/Public Works Director and LRO
  - a. Responsible for the oversight and management of the water quality monitoring and SSO impact assessment.
  - b. Required to be trained on this EOP annually.
2. Environmental Programs Manager
  - a. Responsible for the oversight and management of the water quality monitoring and SSO impact assessment.
  - b. Required to be trained on this EOP annually.
3. Wastewater Field Supervisor
  - a. Responsible for the overall implementation of the water quality monitoring and SSO impact assessment.
  - b. Responsible for training all City Staff, including himself, responsible for SSO Response on this EOP annually.
  - c. Responsible for ensuring that all contractors responsible for SSO response train their Staff on this EOP annually.

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4. City Maintenance Worker and Contractors Responsible for SSO Response
  - a. Required to be trained on this EOP annually.
5. Monterey County Environmental Health Services Staff
  - a. Responsible for ensuring that their Environmental Health Staff is trained in all water quality monitoring activities they conduct.
  - b. Responsible for ensuring that their Environmental Health Staff is trained on and employs all of the health and safety requirements and precautions during water quality sampling activities.
6. Monterey Bay National Marine Sanctuary
  - a. Responsible for ensuring that their Monterey Bay National Marine Sanctuary Staff is trained in all water quality monitoring activities they conduct.
  - b. Responsible for ensuring that their Monterey Bay National Marine Sanctuary Staff is trained on and employs all of the health and safety requirements and precautions during water quality sampling activities.
7. Laboratory Requirements
  - a. Water quality samples must be analyzed by a State Certified Laboratory.

**9. Equipment and Supplies**

1. Beach Warning and/or Closure Signs
2. Cell Phone

**10. Procedure**

**Beach Warnings and Closures**

1. City Staff is responsible for posting the beach warning or closure signs when there is a beach advisory or closure due to a SSO.
2. The beach advisory or closure pertains to the area where the SSO discharged into the Pacific Ocean and 1000 yards in each direction along the beach.
3. The signs are posted at all beach public access points within this 2000 yard window.
4. The Monterey County Environmental Health Services' beach advisory and closure signs utilized by the City are illustrated in Figure 7-2.

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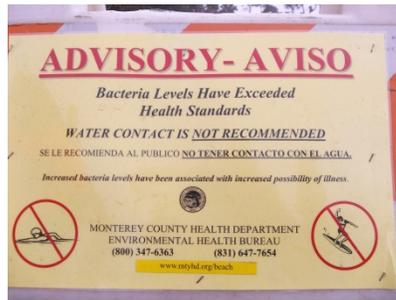
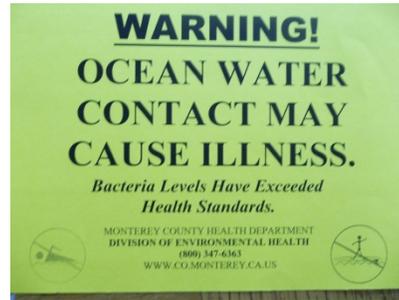


Figure 7-2: Beach Warning and Closure Signs

- The signs are posted using the barricade illustrated in Figure 7-3.



Figure 7-3: Beach Warning and Closure Sign Display

- When Monterey County informs City Staff that the beach is no longer under an advisory or closure, City Staff is responsible for removing the signs and barricades.

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## Water Quality Monitoring Program

1. Water quality monitoring and testing is required when a SSO reaches the Pacific Ocean to determine the extent and impact of the SSO.
2. The Community Development/Public Works Director or Environmental Programs Manager shall contact RWQCB staff by phone and follow-up email to communicate what the City plans to sample for in the Water Quality Monitoring Program outlined below and request additional direction.
3. The Community Development/Public Works Director or Environmental Programs Manager shall contact one of the following State Certified Laboratories in Monterey County and hire them to collect and analyze samples as City staff are not trained and do not have the equipment to perform this type of work. One of the two State Certified Laboratories is private, and one is public.
  - a. Monterey Bay National Marine Sanctuary
    - i. Address: 99 Pacific Street, Bldg. 455A, Monterey, CA
    - ii. Phone Number: (831) 647-4201
    - iii. This is not a lab, but City plans in FY 2013/14 to amend their contract to collect water quality samples after SSOs.
  - b. Monterey Bay Analytical Services
    - i. Address: 4 Justin Court, Suite D, Monterey, CA
    - ii. Phone Number: (831) 875-6227
  - c. MRWPCA
    - i. Address: 14811 Del Monte Avenue, Marina, CA
    - ii. Phone Number: (831) 883-6121
4. The Community Development/Public Works Director or Environmental Programs Manager shall direct the state certified laboratory to collect samples, as soon as possible given safety considerations at the following locations, which must be documented on a map:
  - a. SSO point of entry
  - b. One hundred (100) feet downstream of the SSO
  - c. One hundred (100) feet upstream of the SSO
5. If it is not possible to collect samples due to ocean conditions and/or the location of the SSO into the Pacific Ocean, document site conditions with photographs and label the photographs with the time, date, location, and name of the person taking photograph.
6. Ensure sampling is conducted as soon as site conditions allow, and continue to document by photographing twice a day if they do not.
  - a. The goal is to re-open the beach and/or intertidal area as soon as possible if it has been posted and closed by Monterey County Environmental Health due to the SSO.
  - b. If the City is fined by the SWRCB as a result of the SSO, the penalty calculation includes the number of days the public could not access the beach and/or intertidal area, so the City must document that it has worked closely with Monterey County to re-open the area as soon as possible.

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7. Samples collected are to be analyzed for the following ecological impact and public health pollutants of concern, which are not endorsed by the SWRCB, but are recommended:
  - a. pH
  - b. Temperature
  - c. Dissolved Oxygen
  - d. Ammonia
  - e. Total Phosphorus
  - f. Total Nitrogen
  - g. Total Coliform
  - h. Bacterial Indicators:
    - i. Fecal Coliform
    - ii. Enterococcus
    - iii. E. Coli
8. City Staff may be able to rely on Monterey County Environmental Health Services Staff to conduct bacterial water quality monitoring in the event of a SSO. The Community Development/Public Works Director or Environmental Programs Manager shall work with Monterey County to ensure monitoring is conducted, either by the City or the County for the bacterial indicators listed above in 7.h.
9. Indicator bacterial samples are to be evaluated against the 2009 California Ocean Plan Surface Water Recreational Contact Bacteriological Standards for total coliform, fecal coliform, and enterococcus.
  - a. A single sample exceeds the single sample maximum standard if:
    - i. Total coliform is greater than 10,000 MPN per 100 mL;
    - ii. Fecal coliform is greater than 400 MPN per 100 mL;
    - iii. Enterococcus is greater than 104 MPN per 100 mL; or
    - iv. Total coliform is greater than 1,000 per 100 mL when the fecal coliform/total coliform ratio exceeds 0.1.
  - b. A mean value of at least five weekly consecutive samples during any 30-day sampling period exceeds the standards if:
    - i. Total coliform is greater than 1,000 MPN per 100 mL;
    - ii. Fecal coliform is greater than 200 MPN per 100 mL; or
    - iii. Enterococcus is greater than 35 MPN per 100 mL.
10. At this time the State does not have a limit for E. Coli.
11. Water quality sampling results must be reported as identified in SS-EOP-03: SSO Reporting and documented as outlined in SS-EOP-08: Response Documentation and Records.

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## SSO Ecological and Public Health Impact Assessment

1. A SSO impact assessment is recommended for a SSO greater than 50,000 gallons that reaches the Pacific Ocean, and a SSO impact assessment should be strongly considered by the Community Development/Public Works Director in the event of a SSO less than 50,000 gallons.
  - a. The decision to not conduct an SSO impact assessment in that event should be thoroughly documented.
2. When the decision is made to conduct a SSO impact assessment, a public or private firm experienced in ecological impact assessments must be hired to evaluate the impacts of the SSO on plants, animals, ecosystems, and ideally humans immediately after the SSO in no more than eight (8) hours and again six (6) months after the end of the SSO.
  - a. The following list of public and private biological consultants have experience and have performed ecological assessments in the Monterey Bay area. The provided list is not in order of preference.
    - i. Kinnetic Laboratories
      1. Address: 307 Washington St, Santa Cruz, CA
      2. Phone Number: (831) 457-3950
    - ii. Tenera Environmental
      1. Address: 141 Suburban Rd., Suite A2, San Luis Obispo, CA
      2. Phone Number: (805) 541-0310
    - iii. Moss Landing Marine Laboratories
      1. Address: 8272 Moss Landing Road, Moss Landing, CA
      2. Phone Number: (831) 771-4400
3. An initial ecological impact assessment should be completed at the most appropriate location for sampling transects, which will be used in future quantitative assessments of the SSO area, and should consist of visually checking for and assessing the following SSO impact factors:
  - a. Water clarity;
  - b. Unusual odor;
  - c. Unusual floating organic matter;
  - d. Discolored sand and/or soil;
  - e. Discolored vegetation;
  - f. Algae;
  - g. Fish;
  - h. Amphibians;
  - i. Birds; and
  - j. Mammals.
4. The ecological impact assessment area must be mapped to show the locations of the sampling transects.
5. A second, follow-up short-term impact assessment should be completed and should include any observations of unusual coloration at the distal ends of emergent vegetation.
6. The City's Community Development/Public Works Director must work with Monterey County to assess the human health impacts of the SSO.

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7. The decision to conduct a long-term human health impact assessment will be made by the Community Development/Public Works Director, Monterey County, and the RWQCB Staff responsible for the City of Pacific Grove.
8. Write a report or direct the hired firm to submit a report to keep with the City's SSO records, which includes the following:
  - a. Documentation and evaluation of the cause of the SSO and the corrective actions taken.
  - b. Evaluation of the water quality samples taken after the SSO and comparison of these sample results against the limits provided in the 2009 California Ocean Plan and the constituent base line developed through Monterey County's regular water quality monitoring.
    - i. Monterey County Environmental Health Services' ocean water quality sampling is available on their website at the following link:  
[http://www.mtyhd.org/index.php?option=com\\_content&view=article&id=853&Itemid=522](http://www.mtyhd.org/index.php?option=com_content&view=article&id=853&Itemid=522).
    - ii. Monterey Bay Sanctuary also assists with creating a database of base line data through their Urban Water Pacific Grove Reports, which are available on their Citizen Watershed Monitoring Network website at the following link:  
<http://montereybay.noaa.gov/monitoringnetwork/reports.html>
  - c. Evaluation of the short- and long-term ecological and human health impacts, which includes the following sections:
    - i. Background
    - ii. Methods
    - iii. Results
    - iv. Conclusions
    - v. Recommendations
    - vi. References

## 11. Data and Records Management

1. Individual SSO records shall be maintained for a minimum of five (5) years from the date of the SSO. This period may be extended when requested by a RWQCB Executive Officer.
2. All records shall be made available for review upon SWRCB or RWQCB Staff's request.
3. SSO records, which must be retained include, but are not limited to:
  - a. Record of Certified report, as submitted to CIWQS;
  - b. All original recordings for continuous monitoring instrumentation;
  - c. Service call records and complaint logs of calls received;
  - d. SSO calls;
  - e. SSO records;
  - f. Steps that have been and will be taken to prevent the SSO from recurring and a schedule to implement those steps;
  - g. Work orders, work completed, and any other maintenance records from the previous five (5) years which are associated with responses and investigations of system problems related to SSOs;

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- h. A list and description of complaints from customers or others from the previous five (5) years; and
    - i. Documentation of performance and implementation measures for the previous five (5) years.
- 4. If water quality samples are required as a result of any SSO, records of monitoring information shall include the:
  - j. Date, exact place, and time of sampling measurements;
  - k. Individual(s) who performed the sampling or measurements;
  - l. Date(s) analyses were performed;
  - m. Individuals who performed the analyses;
  - n. Analytical technique or method used; and
  - o. Results of such analyses.

## **12. Quality Control and Quality Assurance**

- 1. Community Development/Public Works Director and LRO
  - a. Responsible for the oversight, management, review, and finalization of the water quality monitoring and SSO impact assessment.
  - b. Responsible for
- 2. Environmental Programs Manager
  - a. Responsible for the oversight, management, and review of the water quality monitoring and SSO impact assessment.
- 3. Wastewater Field Supervisor
  - a. Responsible for reviewing the water quality monitoring and SSO impact assessment.
- 4. Monterey County Environmental Health Services Staff
  - a. Responsible for ensuring that water quality samples are taken accurately and are analyzed by a State Certified Laboratory.

## **13. References**

- 1. SS-EOP-03: SSO Reporting
- 2. SS-EOP-08: Response Documentation and Records
- 3. WDR: Order No. 2006-0003-DWQ
- 4. Adopted Amended MRP for the WDR: Order No. WQ 2008-0002-EXEC
- 5. 2009 California Ocean Plan

## **14. Attachments**

- 1. This section is not applicable to this EOP.

 <p><b>Standard Operating Procedure</b></p> <p>City of Pacific Grove</p>		<p>Document No:</p> <p style="text-align: center;">SS-EOP-08</p>
<p>Title:</p> <p style="text-align: center;">SSO RESPONSE DOCUMENTATION AND RECORDS</p>		<p>Revision:</p> <p style="text-align: center;">0</p>
<p>Issued by:</p>  <p>Michael Zimmer Community Development/Public Works Director, City of Pacific Grove</p>	<p>Prepared by:</p> <p>Anastasia Mylonas Engineering Associate, Wallace Group</p>	<p>Page:</p> <p style="text-align: center;">1 of 11</p> <p>Effective Date:</p> <p style="text-align: center;">6/19/2013</p>

**1. Purpose**

The purpose of the SSO Response Documentation and Records EOP is to ensure proper emergency response activities are in place and are documented for safe and effective response and reporting of sanitary sewer overflows (SSOs), which occur in the City of Pacific Grove's (City's) sanitary sewer collection system.

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**2. Location**

Blank SSO response documents used to record SSO events and response activities are located in the City of Pacific Grove (City) Public Works.

Completed SSO response documents are filed in the SSO binder located in the City Public Works Office.

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**3. Scope and Availability**

The State Water Resources Control Board (SWRCB) Monitoring and Reporting Program (MRP) No. 2006-0003-DWQ as revised by Order No. WQ 2008-0002-EXEC for Order No. 2006-0003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems," establishes SSO reporting documentation requirements for all federal and state agencies, municipalities, counties, districts, and other public entities, which own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California.

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#### 4. Definitions

Term	Definition
Business Hours	The City Administrative Office's business hours are 8:30 AM – 4:00 PM, Monday through Friday, excluding legal holidays.
California Integrated Water Quality System (CIWQS)	The online reporting system developed, hosted, and maintained by the SWRCB for compliance with the WDRs.
Category 1 SSO	All discharges of sewage resulting from a failure in City's sanitary sewer system that: <ol style="list-style-type: none"> <li>1. Equal or exceed 1000 gallons, or</li> <li>2. Result in a discharge to a drainage channel and/or surface water; or</li> <li>3. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.</li> </ol>
Category 2 SSO	All other discharges of sewage resulting from a failure in City's sanitary sewer system, which are not Category 1 SSOs.
City of Pacific Grove (City)	The City operates and maintains a sanitary sewer collection system, which conveys sewage to the wastewater treatment plant operated and maintained by Monterey Regional Water Pollution Control Agency (MRWPCA).
Collection System	Generic term for any system of pipes, sewer lines, and lift stations used to convey wastewater to a treatment facility.
Data Submitter	A Data Submitter is any individual authorized by the LRO to enter data into CIWQS, the online SSO database, on behalf of the City. In order for a person to be officially designated as a Data Submitter, they must complete the SWRCB's Data Submitter Registration Form for the SSO Database, which must be approved and signed by the City's LRO and is available on the SWRCB's website at the following link: <a href="http://www.waterboards.ca.gov/water_issues/programs/ss0/docs/datasubmitter_form.pdf">http://www.waterboards.ca.gov/water_issues/programs/ss0/docs/datasubmitter_form.pdf</a> .
Drainage Channel	A man-made canal used to transport stormwater as part of a municipal separate storm sewer system, or an intermittent or perennial stream bed.

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<b>Term</b>	<b>Definition</b>
Emergency Operating Procedure (EOP)	An EOP is a form of a standard operating procedure (SOP) for an activity associated with an emergency situation. SOP is defined below.
Environmental Protection Agency (EPA)	United States EPA's mission is to protect human health and the environment. EPA works to accomplish this mission through writing and enforcing federal regulations and policies and identifying, initiating national efforts to reduce environmental risk are based on the best available scientific information and identifying measurable environmental and human health outcomes and how EPA plans to achieve those results.
Green Line	Green Line is contracted by the City to provide collection system hydroflush cleaning and tree removal services and emergency call out services.
Lateral	The segment of pipe which connects a home or building to a sewer main, which is usually located beneath a street or easement.
Legally Responsible Official (LRO)	<p>A LRO is the person designated for the City as either a principal executive officer or ranking elected official or a duly authorized representative of that person. An individual is a duly authorized representative if:</p> <ol style="list-style-type: none"> <li>1. The authorization is made in writing by a LRO; and</li> <li>2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.</li> </ol> <p>In order for a person to be officially designated as a LRO, they must complete the SWRCB's LRO Registration Form for the SSO Database, which is available on the SWRCB's website at the following link: <a href="http://www.waterboards.ca.gov/water_issues/programs/ssso/docs/lro_form.pdf">http://www.waterboards.ca.gov/water_issues/programs/ssso/docs/lro_form.pdf</a>.</p>
Monitoring and Reporting Program (MRP)	Establishes monitoring, record keeping, reporting and public notification requirements as part of a waste discharge requirements (WDR). In this EOP, MRP refers to Order No. WQ 2008-0002-EXEC, which is the amended MRP for WDR Order No. 2006-0003-DWQ. Order No. 2006-DWQ is defined below under WDR.
Monterey Regional Water	MRWPCA operates a regional wastewater treatment plant, which serves the following agencies: City of Pacific Grove, City of Monterey, City of Del Rey Oaks, Seaside County Sanitation District, Sand City,

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Term	Definition
Pollution Control Agency (MRWPCA)	Fort Ord, City of Marina, Castroville Community Services District, Moss Landing, Boronda, City of Salinas, and Monterey County.
Private Lateral Sewage Discharge (PLSD)	Sewage discharges that are caused by blockages or other problems within a privately owned lateral.
Regional Water Quality Control Board (RWQCB)	<p>There are nine (9) RWQCBs in California, which are semi-autonomous and are comprised of nine (9) part-time Board Members appointed by the Governor and confirmed by the Senate. Each RWQCB makes water quality decisions for its region, including setting standards, issuing WDRs, determining compliance with those requirements, and taking appropriate enforcement action.</p> <p>The City of Pacific Grove is located in RWQCB Region 3: Central Coast, and therefore is regulated and monitored by the Central Coast RWQCB.</p>
Sanitary Sewer Overflow (SSO)	<p>Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:</p> <ol style="list-style-type: none"> <li>1. Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;</li> <li>2. Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and</li> <li>3. Wastewater backups into buildings on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.</li> </ol>
Sanitary Sewer System (SSS)	<p>Temporary storage and conveyances facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.</p> <p>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 publicly owned treatment facility. Temporary storage and conveyances facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments,</p>

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Term	Definition
	tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.
Sewer System Management Plan (SSMP)	A system-specific plan required by the WDR, which includes provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis, and a spill response plan that establishes procedures for immediate response to a SSO in a manner designed to minimize water quality impacts and potential nuisance conditions.
Spill	Generic term referring to any sewage discharge (i.e., SSO or PLSD) resulting from a failure in a sanitary sewer system, privately owned lateral, or collection system.
Standard Operating Procedure (SOP)	A SOP is a set of written instructions that document a routine or repetitive activity followed by an organization.
State Water Resources Control Board (SWRCB)	<p>The SWRCB's mission is to ensure the highest reasonable quality for waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses. The SWRCB sets statewide policy, coordinates and supports RWQCB efforts, and reviews petitions that contest RWQCB actions. SWRCB is also solely responsible for allocating surface water rights.</p> <p>The SWRCB consists of five full-time salaried Board Members, each filling a different specialty position. Each Board Member is appointed to a four-year term by the Governor and confirmed by the Senate.</p>
Untreated or Partially Treated Wastewater	Any volume of waste discharge from the sanitary sewer system upstream of a wastewater treatment plant headworks.
Waste Discharge Requirements (WDR)	<p>WDRs regulate point discharges that are exempt pursuant to California Code of Regulations Title 27, Subsection 20090, such as sewage, and are not subject to the Federal Water Pollution Control Act. Discharges of domestic sewage or treated effluent are regulated by WDRs issued pursuant to California Code of Regulations Title 23, Division 3, Chapter 9.</p> <p>In this EOP, WDR refers to the SWRCB's Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Order No. 2006-</p>

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**Term****Definition**

0003-DWQ, and Monitoring and Reporting Program (MRP) No. 2006-0003-DWQ as revised by Order No. WQ 2008-0002-EXEC, which requires all federal and state agencies, municipalities, counties, districts, and other public entities, which own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California to develop and implement Sewer System Management Plans and report all SSOs to SWRCB through CIWQS.

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## **5. Health and Safety Warnings**

1. There are no health and safety warnings for this EOP.

## **6. Cautions**

1. The validity of reported results depends on the quality and extent of the documentation taken and maintained by City Staff.
2. Ensure that all SSO response activities are documented in order to verify and support SSO response activities, such as water quality sampling result validity and applicability and SSO volume estimation.
3. Ensure that the SSO volume estimate being provided in the reporting is defensible and have the documentation needed to support the estimate.
4. Review SWRCB and RWQCB records requirements annually in order to ensure the required information, documents, and records are being maintained by the City.

## **7. Interferences**

1. SSO response and mitigation activities supersede documentation in cases with insufficient staffing levels. This requires the documentation to occur after the SSO is contained and its effects are mitigated, which could result in less extensive documentation of the SSO response activities.

## **8. Personnel Qualifications and Responsibilities**

1. Legally Responsible Official (LRO)
  - a. Responsible for ensuring that all required records and documents are maintained by the City and available upon request from or inspection by SWRCB, RWQCB, or EPA.
  - b. Required to be trained on this EOP annually.
2. Wastewater Field Supervisor
  - a. Responsible for managing and maintaining all required records and documents are maintained by the City and available upon request from or inspection by SWRCB, RWQCB, or EPA.
  - b. Required to be trained on this EOP annually.
3. City Staff and Contractors Responsible for SSO Response
  - a. Required to be trained on this EOP annually.

## **9. Equipment and Supplies**

1. SS-EOP-03: SSO Reporting
2. SS-EOP-05: SSO Volume Estimation
3. SS-EOP-06: SSO Mitigation and Cleanup
4. SSO Binder

## **10. Procedure**

### **SSO Response Field Checklist**

1. Responsible Party:

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- a. Wastewater Field Supervisor; or
  - b. First Responder.
2. Complete all of the required information and photographs in the SSO Response Field Checklist as described in SS-EOP-06, SSO Mitigation and Cleanup. This information will be utilized to complete the SSO Report in CIWQS as described in SS-EOP-03, SSO Reporting.
3. Reported Volume Estimate
  - a. The SSO Response Field Checklist attached to SS-EOP-06, SSO Mitigation and Cleanup, requires a SSO volume estimate.
  - b. Utilize SS-EOP-05, SSO Volume Estimation, to complete the appropriate spill estimation method worksheet and calculate this estimate.
  - c. This spill estimation worksheet is the City's documentation of how the SSO volume was evaluated and calculated.
  - d. The estimate developed will be reported in CIWQS as described in SS-EOP-03, SSO Reporting.

### **Historical SSO Records**

1. Responsible Party:
  - a. LRO
  - b. Wastewater Field Supervisor
  - c. Any Duly Authorized Representative
2. Keep all SSO records, including reports, photographs, supporting information, documents, or calculations in the SSO binder.

## **11. Data and Records Management**

The following records shall be maintained in the SSO binder, which is kept in the City of Pacific Grove Public Works Office:

1. Individual SSO records shall be maintained for a minimum of five (5) years from the date of the SSO. This period may be extended when requested by a RWQCB Executive Officer.
2. All records shall be made available for review upon SWRCB or RWQCB Staff's request.
3. SSO records, which must be retained include, but are not limited to:
  - a. Record of Certified report, as submitted to CIWQS;
  - b. All original recordings for continuous monitoring instrumentation;
  - c. Service call records and complaint logs of calls received;
  - d. SSO calls;
  - e. SSO records;
  - f. Steps that have been and will be taken to prevent the SSO from recurring and a schedule to implement those steps;
  - g. Work orders, work completed, and any other maintenance records from the previous five (5) years which are associated with responses and investigations of system problems related to SSOs;
  - h. A list and description of complaints from customers or others from the previous five (5) years; and

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- i. Documentation of performance and implementation measures for the previous five (5) years.
4. If water quality samples are required as a result of any SSO, records of monitoring information shall include the:
  - a. Date, exact place, and time of sampling measurements;
  - b. Individual(s) who performed the sampling or measurements;
  - c. Date(s) analyses were performed;
  - d. Individuals who performed the analyses;
  - e. Analytical technique or method used; and
  - f. Results of such analyses.

## **12. Quality Control and Quality Assurance**

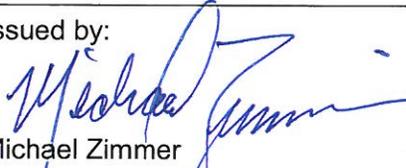
1. LRO
  - a. Responsible for the final review, revision, certification, and submission of documents and reports related to SSOs.
2. Wastewater Field Supervisor
  - a. Responsible for reviewing and approving all SSO related reports and documents before they are reported or submitted.

## **13. References**

1. SS-EOP-03: SSO Reporting
2. SS-EOP-05: SSO Volume Estimation
3. SS-EOP-06: SSO Mitigation and Cleanup
4. Adopted Amended MRP for the WDR: Order No. WQ 2008-0002-EXEC

## **14. Attachments**

1. This section is not applicable to this EOP.

 <p><b>Standard Operating Procedure</b></p> <p>City of Pacific Grove</p>		<p>Document No:</p> <p style="text-align: center;">SS-EOP-09</p>
<p>Title:</p> <p style="text-align: center;"><b>SSO TRAINING REQUIREMENTS</b></p>		<p>Revision:</p> <p style="text-align: center;">0</p>
<p>Issued by:</p>  <p>Michael Zimmer Community Development/Public Works Director City of Pacific Grove</p>	<p>Prepared by:</p> <p>Anastasia Mylonas Engineering Associate, Wallace Group</p>	<p>Page:</p> <p style="text-align: center;">1 of 11</p> <p>Effective Date:</p> <p style="text-align: center;">6/19/2013</p>

**1. Purpose**

The purpose of the SSO Training Requirements EOP is to ensure City of Pacific Grove (City) Staff and contractors are appropriately trained on proper sanitary sewer overflow (SSO) response activities in order to ensure SSO response activities are performed safely and efficiently and to protect human and environmental health.

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## 2. Location

Training activities will take place at City collection system locations and at the City's Public Works Office depending on the topic of the training. Field SSO training exercises should take place in areas where City Staff has experienced SSOs in the past or in areas within the City service area where these procedures can best be demonstrated. Figure 9-1 illustrates the City service area in which the sanitary sewer collection system is located.



Figure 9-1: City Service Area

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### **3. Scope and Availability**

The State Water Resources Control Board's (SWRCB) Statewide General Waste Discharge Requirements for Sanitary Sewer Systems (WDR), Order No. 2006-0003-DWQ, establishes the requirement for all federal and state agencies, municipalities, counties, districts, and other public entities, which own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California, to have procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Overflow Emergency Response Plan (OERP) and are appropriately trained.

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#### 4. Definitions

<b>Term</b>	<b>Definition</b>
Business Hours	The City Administrative Office's business hours are 7:30 AM – 4:00 PM, Monday through Friday, excluding legal holidays.
Cal/OSHA	Cal/OSHA is the California Division of Occupational Health and Safety and protects workers and the publics from safety hazards through its health and safety programs.
California Code of Regulations (CCR)	The CCR is the official compilation and publication of the regulations adopted, amended, or repealed by state agencies pursuant to the Administrative Procedure Act.
California Integrated Water Quality System (CIWQS)	The online reporting system developed, hosted, and maintained by the SWRCB for compliance with the WDRs.
Category 1 SSO	All discharges of sewage resulting from a failure in City's sanitary sewer system that: <ol style="list-style-type: none"> <li>1. Equal or exceed 1000 gallons, or</li> <li>2. Result in a discharge to a drainage channel and/or surface water; or</li> <li>3. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.</li> </ol>
Category 2 SSO	All other discharges of sewage resulting from a failure in City's sanitary sewer system, which are not Category 1 SSOs.
City of Pacific Grove (City)	The City operates and maintains a sanitary sewer collection system, which conveys sewage to the wastewater treatment plant operated and maintained by Monterey Regional Water Pollution Control Agency (MRWPCA).
Code of Federal Regulations (CFR)	The CFR is the codification of the general and permanent rules published in the Federal Register by the departments and agencies of the Federal Government.
Collection	Generic term for any system of pipes, sewer lines, and lift stations used

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<b>Term</b>	<b>Definition</b>
System	to convey wastewater to a treatment facility.
Data Submitter	A Data Submitter is any individual authorized by the LRO to enter data into CIWQS, the online SSO database, on behalf of the City. In order for a person to be officially designated as a Data Submitter, they must complete the SWRCB's Data Submitter Registration Form for the SSO Database, which must be approved and signed by the City's LRO and is available on the SWRCB's website at the following link: <a href="http://www.waterboards.ca.gov/water_issues/programs/ssso/docs/datasubmitter_form.pdf">http://www.waterboards.ca.gov/water_issues/programs/ssso/docs/datasubmitter_form.pdf</a> .
Drainage Channel	A man-made canal used to transport stormwater as part of a municipal separate storm sewer system, or an intermittent or perennial stream bed.
Emergency Operating Procedure (EOP)	An EOP is a form of a standard operating procedure (SOP) for an activity associated with an emergency situation. SOP is defined below.
Green Line	Green Line is contracted by the City to provide collection system hydroflush cleaning and tree root removal services and emergency call out services.
Injury and Illness Prevention Program (IIPP)	The IIPP is a basic written workplace safety program, which is required by Title 8 of the California Code of Regulations (CCR). The IPP includes eight elements: (1) Responsibility, (2) Compliance, (3) Hazard Assessment, (5) Accident/Exposure Investigation, (6) Hazard Correction, (7) Training and Instruction, and (8) Recordkeeping.
Lateral	The segment of pipe which connects a home or building to a sewer main, which is usually located beneath a street or easement.
Legally Responsible Official (LRO)	A LRO is the person designated for the City as either a principal executive officer or ranking elected official or a duly authorized representative of that person. An individual is a duly authorized representative if: <ol style="list-style-type: none"> <li>1. The authorization is made in writing by a LRO; and</li> <li>2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.</li> </ol> <p>In order for a person to be officially designated as a LRO, they must complete the SWRCB's LRO Registration Form for the SSO Database,</p>

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	<p>which is available on the SWRCB's website at the following link:  <a href="http://www.waterboards.ca.gov/water_issues/programs/sso/docs/lro_for_m.pdf">http://www.waterboards.ca.gov/water_issues/programs/sso/docs/lro_for_m.pdf</a>.</p>
Monitoring and Reporting Program (MRP)	<p>Establishes monitoring, record keeping, reporting and public notification requirements as part of a waste discharge requirements (WDR). In this EOP, MRP refers to Order No. WQ 2008-0002-EXEC, which is the amended MRP for WDR Order No. 2006-0003-DWQ. Order No. 2006-DWQ is defined below under WDR.</p>
Monterey Regional Water Pollution Control Agency (MRWPCA)	<p>MRWPCA operates a regional wastewater treatment plant, which serves the following agencies: City of Pacific Grove, City of Monterey, City of Del Rey Oaks, Seaside County Sanitation District, Sand City, Fort Ord, City of Marina, Castroville Community Services District, Moss Landing, Boronda, City of Salinas, and Monterey County.</p>
Personal Protective Equipment (PPE)	<p>PPE is designed to protect workers from serious workplace injuries or illnesses resulting from contact with chemical, radiological, physical, electrical, mechanical, or other workplace hazards. PPE includes a variety of equipment, devices, and garments including, but not limited to, face shields, safety glasses, hard hats, safety shoes, goggles, coveralls, gloves, vests, earplugs, and respirators.</p> <p>PPE standards are in Title 29 of the Code of Federal Regulations (CFR), Part 1910 Subpart I, and Title 8 of the California Code of Regulations (CCR) Chapter 4.</p>
Private Lateral Sewage Discharge (PLSD)	<p>Sewage discharges that are caused by blockages or other problems within a privately owned lateral.</p>
OSHA	<p>The Occupational Safety and Health Administration, which is part of the United States Department of Labor and was created to assure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education, and assistance.</p>
Regional Water Quality Control Board (RWQCB)	<p>There are nine (9) RWQCBs in California, which are semi-autonomous and are comprised of nine (9) part-time Board Members appointed by the Governor and confirmed by the Senate. Each RWQCB makes water quality decisions for its region, including setting standards, issuing WDRs, determining compliance with those requirements, and taking</p>

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	<p>appropriate enforcement action.</p> <p>The City of Pacific Grove is located in RWQCB Region 3: Central Coast, and therefore is regulated and monitored by the Central Coast RWQCB.</p>
Sanitary Sewer Overflow (SSO)	<p>Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:</p> <ol style="list-style-type: none"> <li>1. Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;</li> <li>2. Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and</li> <li>3. Wastewater backups into buildings on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.</li> </ol> <p>Temporary storage and conveyances facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.</p>
Sanitary Sewer System (SSS)	<p>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 publicly owned treatment facility. Temporary storage and conveyances facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.</p>
Sewer System Management Plan (SSMP)	<p>A system-specific plan required by the WDR, which includes provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis, and a spill response plan that establishes procedures for immediate response to a SSO in a manner designed to minimize water quality impacts and potential nuisance conditions.</p>
Spill	<p>Generic term referring to any sewage discharge (i.e., SSO or PLSD) resulting from a failure in a sanitary sewer system, privately owned</p>

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Term	Definition
	lateral, or collection system.
Standard Operating Procedure (SOP)	A SOP is a set of written instructions that document a routine or repetitive activity followed by an organization.
State Water Resources Control Board (SWRCB)	<p>The SWRCB's mission is to ensure the highest reasonable quality for waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses. The SWRCB sets statewide policy, coordinates and supports RWQCB efforts, and reviews petitions that contest RWQCB actions. SWRCB is also solely responsible for allocating surface water rights.</p> <p>The SWRCB consists of five full-time salaried Board Members, each filling a different specialty position. Each Board Member is appointed to a four-year term by the Governor and confirmed by the Senate.</p>
Untreated or Partially Treated Wastewater	Any volume of waste discharge from the sanitary sewer system upstream of a wastewater treatment plant headworks.
Waste Discharge Requirements (WDR)	<p>WDRs regulate point discharges that are exempt pursuant to California Code of Regulations Title 27, Subsection 20090, such as sewage, and are not subject to the Federal Water Pollution Control Act. Discharges of domestic sewage or treated effluent are regulated by WDRs issued pursuant to California Code of Regulations Title 23, Division 3, Chapter 9.</p> <p>In this EOP, WDR refers to the SWRCB's Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Order No. 2006-0003-DWQ, and Monitoring and Reporting Program (MRP) No. 2006-0003-DWQ as revised by Order No. WQ 2008-0002-EXEC, which requires all federal and state agencies, municipalities, counties, districts, and other public entities, which own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California to develop and implement Sewer System Management Plans and report all SSOs to SWRCB through CIWQS.</p>

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## **5. Health and Safety Warnings**

1. All field SSO training exercises must be conducted in a safe manner that protects City Staff, the City's contractors, and the public.
2. Employees are required to follow the City's or contractor's safety practices and procedures, whichever is more stringent. These procedures must establish guidelines in compliance with the:
  - a. Occupational Health and Safety Administration (OSHA);
  - b. California Division of Occupational Safety and Health (Cal/OSHA);
  - c. City of Pacific Grove's Illness and Injury Prevention Program (IIPP); and
  - d. City of Pacific Grove requirements and standards.
3. Multiple hazards exist in the performance of field SSO training. The following are some of the more common hazards to be aware of:
  - a. Traffic in the vicinity of field SSO training exercises
  - b. Distracted drivers
  - c. Members of the public interested in field SSO training exercises
  - d. Slips, trips, and falls
  - e. Falling objects
  - f. Infections and disease
  - g. Strains and back injuries
  - h. Bites (insects, bugs, rodents, etc.)
  - i. Noise
  - j. Weather conditions
4. WDR: Order No. 2006-0003-DWQ
5. Adopted Amended MRP for the WDR: Order No. WQ 2008-0002-EXEC

## **6. Cautions**

1. Ensure that all equipment is used correctly and as outlined in the City's SOPs.

## **7. Interferences**

1. Schedule training when City Staff schedules are relatively free in order to ensure that training exercise can be completed with minimal or no interruptions.
2. Require contractors responsible for assisting the City with SSO response to train on the OERP and associated EOPs as part of their contracts and agreements with the City.

## **8. Personnel Qualifications and Responsibilities**

1. Wastewater Field Supervisor
  - a. Responsible for training all City Staff and contractors responsible for SSO Response are trained on this EOP annually.
  - b. Responsible for documenting all training associated with the OERP and the EOPs referenced in the OERP.
  - c. Responsible for maintaining all training records and documents.
  - d. Responsible for managing, maintaining, and updating this EOP.
2. City Staff and Contractors Responsible for SSO Response
  - a. Required to be trained on this EOP annually.

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3. Environmental Programs Manager
  - a. Responsible for reviewing training records semiannually.
4. Community Development/Public Works Director
  - a. Responsible for the overall management of the training program.
  - b. Responsible for ensuring that the Environmental Programs Manager and Wastewater Field Supervisor are implementing the training program.

## 9. Equipment and Supplies

1. Personal Protective Equipment (PPE):
  - a. Gloves
  - b. Rubber Boots
  - c. Safety Glasses
  - d. Flashlights
  - e. Safety Vest
2. SSO Cleanup Equipment:
  - a. Hydrovac Truck
  - b. Sewer Bypass Pump
  - c. Bleach
  - d. Shovels
  - e. Rakes
  - f. Sandbags
  - g. Plugs
  - h. Plastic Tarps
  - i. Visqueen
3. City SSO Records Binder
4. The City's OERP
5. The City's EOPs

## 10. Procedure

City Staff and contractors responsible for any activities included in the OERP and associated EOPs must be trained at a minimum of once per a year. Training must cover the following activities at a minimum:

- OERP Overview
- Regulatory Notification Requirements
- Regulatory Reporting Requirements
- Traffic and Crowd Control
- SSO Volume Estimation
- SSO Mitigation and Cleanup
- Water Quality Monitoring and Impact Assessment
- Response Documentation
- Records Requirements

City Staff must read and discuss all EOPs in order to insure the procedures are thoroughly understood, agreed upon, and accurate. Each EOP, which can be tested with

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a field training exercise, should be practiced and evaluated through a field training exercise.

After a SSO occurs, all implemented procedures must be evaluated to determine whether the procedures are effective or if there is room for improvement. If it is determined that a procedure needs to be revised or updated, City Staff and contractors, who are responsible for SSO response activities, must review and be trained on the revised or updated procedures to ensure that input is received on the changes made and that the current version of the procedure will be utilized the next time it is needed.

**11. Data and Records Management**

1. All SSO training records must be maintained in a City training binder, which is located in the City Public Works Office, for at least five (5) years. This period may be extended when requested by a RWQCB Executive Officer.
2. All records shall be made available for review upon SWRCB or RWQCB Staff's request.

**12. Quality Control and Quality Assurance**

1. The Wastewater Field Supervisor reviews all training records and procedures and is responsible for maintaining, revising, and updating these documents.
2. The Environmental Programs Manager will review training records semiannually.

**13. References**

1. The City's OERP
2. The City's EOPs
3. WDR: Order No. 2006-0003-DWQ
4. Adopted Amended MRP for the WDR: Order No. WQ 2008-0002-EXEC

**14. Attachments**

1. This section does not apply to this EOP.

## **APPENDIX 6B**

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### Contract with Green Line for Emergency Call Out Services

PUBLIC WORKS AGREEMENT FOR PROFESSIONAL SERVICES WITH GREEN LINE, A  
SUBSIDIARY OF LF & GW CORPORATION, FOR CITY WIDE SANITARY SEWER SYSTEM  
HYDROFLUSH CLEANING AND TREE ROOT REMOVAL

This Professional Services Agreement ("Agreement") is made by and between the City of Pacific Grove, a political subdivision of the State of California (hereinafter "City") and Green Line, A Subsidiary Of LF & GW Corporation, (hereinafter "CONTRACTOR") for city wide sanitary sewer system hydroflush cleaning and tree root removal.

In consideration of the mutual covenants and conditions set forth in this Agreement, the parties agree as follows:

1. **SERVICES TO BE PROVIDED.** The City hereby engages CONTRACTOR to perform, and CONTRACTOR hereby agrees to perform, the services described in **Exhibit A** in conformity with the terms of this Agreement. The services are generally described as follows: City wide sanitary sewer system hydroflush cleaning, tree root removal and emergency call-out services, to hydroflush at rate of \$0.63 per linear foot and to do tree root removal at rate of \$0.85 per linear foot, as well as an emergency call out work rate of \$240 per hour with a 3 hour minimum after 4:30pm weekdays and weekends and a holiday rate of \$305.00 per hour with a 3 hour minimum.
2. **PAYMENTS BY CITY.** City shall pay the CONTRACTOR in accordance with the payment provisions set forth in **Exhibit A**, subject to the limitations set forth in this Agreement. The total amount payable by City to CONTRACTOR under this Agreement shall not exceed \$200,000 per fiscal year, for two years.
3. **TERM OF AGREEMENT.** The term of this Agreement is from July 23, 2012 through June 30, 2014 unless sooner terminated pursuant to the terms of this Agreement. This Agreement is of no force or effect until signed by both CONTRACTOR and City and with City signing last.
4. **ADDITIONAL PROVISIONS/EXHIBITS.** The following attached exhibits are incorporated herein by reference and constitute a part of this Agreement:

**Exhibit A- Scope of Services/Payment Provisions**

5. **PERFORMANCE STANDARDS.**

5.01. CONTRACTOR warrants that CONTRACTOR and CONTRACTOR's agents, employees, and subcontractors performing services under this Agreement are specially trained, experienced, competent, and appropriately licensed to perform the work and deliver the services required under this Agreement and are not employees of the City, or immediate family of an employee of the City.

5.02. CONTRACTOR, its agents, employees, and subcontractors shall perform all work in a safe and skillful manner and in compliance with all applicable laws and regulations. All work performed under this Agreement that is required by law to be performed or supervised by licensed personnel shall be performed in accordance with such licensing requirements.

5.03. CONTRACTOR shall furnish, at its own expense, all materials, equipment, and personnel necessary to carry out the terms of this Agreement, except as otherwise specified in this Agreement. CONTRACTOR

shall not use City premises, property (including equipment, instruments, or supplies) or personnel for any purpose other than in the performance of its obligations under this Agreement.

## 6. PAYMENT CONDITIONS.

6.01. CONTRACTOR shall submit to the Contract Administrator an invoice on a form acceptable to City. If not otherwise specified, the CONTRACTOR may submit such invoice periodically or at the completion of services, but in any event, not later than 30 days after completion of services. The invoice shall set forth the amounts claimed by CONTRACTOR for the previous period, together with an itemized basis for the amounts claimed, and such other information pertinent to the invoice as the City may require. The Contract Administrator or his or her designee shall certify the invoice; either in the requested amount or in such other amount as the City approves in conformity with this Agreement, and shall promptly submit such invoice to the City Administrative Services Director for payment. The City Administrative Services Director shall pay the amount certified within 30 days of receiving the certified invoice.

6.02. CONTRACTOR shall not receive reimbursement for travel expenses unless set forth in this Agreement.

## 7. TERMINATION.

7.01. During the term of this Agreement, the City may terminate the Agreement for any reason by giving written notice of termination to the CONTRACTOR at least fourteen (14) days prior to the effective date of termination. Such notice shall set forth the effective date of termination. In the event of such termination, the amount payable under this Agreement shall be reduced in proportion to the services provided prior to the date of termination.

7.02. The City may cancel and terminate this Agreement for good cause effective immediately upon written notice to CONTRACTOR. "Good cause" includes the failure of CONTRACTOR to perform the required services at the time and in the manner provided under this Agreement. If City terminates this Agreement for good cause, the City may be relieved of the payment of any consideration to CONTRACTOR, and the City may proceed with the work in any manner which City deems proper. The cost to the City shall be deducted from any sum due the CONTRACTOR under this Agreement.

8. **INDEMNIFICATION.** CONTRACTOR shall indemnify, defend, and hold harmless the City, its officers, agents, and employees, from and against any and all claims, liabilities, and losses whatsoever (including damages to property and injuries to or death of persons, court costs, and reasonable attorneys' fees) occurring or resulting to any and all persons, firms or corporations furnishing or supplying work, services, materials, or supplies in connection with the performance of this Agreement, and from any and all claims, liabilities, and losses occurring or resulting to any person, firm, or corporation for damage, injury, or death arising out of or connected with the CONTRACTOR's performance of this Agreement, unless such claims, liabilities, or losses arise out of the sole negligence or willful misconduct of the City. "CONTRACTOR's performance" includes CONTRACTOR's action or inaction and the action or inaction of CONTRACTOR's officers, employees, agents and subcontractors.

## 9. INSURANCE.

9.01. Insurance Coverage Requirements: Without limiting CONTRACTOR's duty to indemnify, CONTRACTOR shall maintain in effect throughout the term of this Agreement a policy or policies of insurance with the following minimum limits of liability:

Commercial general liability insurance, including but not limited to premises and operations, including coverage for Bodily Injury and Property Damage, Personal Injury, Contractual Liability, Broadform Property Damage, Independent Contractors, Products and Completed Operations, with a combined single limit for Bodily Injury and Property Damage of not less than \$1,000,000 per occurrence.

Exemption/Modification (Justification attached; subject to approval).

Business automobile liability insurance, covering all motor vehicles, including owned, leased, non-owned, and hired vehicles, used in providing services under this Agreement, with a combined single limit for Bodily Injury and Property Damage of not less than \$500,000 per occurrence.

Exemption/Modification (Justification attached; subject to approval).

Workers' Compensation Insurance, if CONTRACTOR employs others in the performance of this Agreement, in accordance with California Labor Code section 3700 and with Employer's Liability limits not less than \$1,000,000 each person, \$1,000,000 each accident and \$1,000,000 each disease.

Exemption/Modification (Justification attached; subject to approval).

Professional liability insurance, if required for the professional services being provided, (e.g., those persons authorized by a license to engage in a business or profession regulated by the California Business and Professions Code), in the amount of not less than \$1,000,000 per claim and \$2,000,000 in the aggregate, to cover liability for malpractice or errors or omissions made in the course of rendering professional services. If professional liability insurance is written on a "claims-made" basis rather than an occurrence basis, the CONTRACTOR shall, upon the expiration or earlier termination of this Agreement, obtain extended reporting coverage ("tail coverage") with the same liability limits. Any such tail coverage shall continue for at least three years following the expiration or earlier termination of this Agreement.

Exemption/Modification (Justification attached; subject to approval).

9.02. Other Insurance Requirements. All insurance required by this Agreement shall be with a company acceptable to the City and issued and executed by an admitted insurer authorized to transact Insurance business in the State of California. Unless otherwise specified by this Agreement, all such insurance shall be written on an occurrence basis, or, if the policy is not written on an occurrence basis, such policy with the coverage required herein shall continue in effect for a period of three years following the date CONTRACTOR completes its performance of services under this Agreement.

Each liability policy shall provide that the City shall be given notice in writing at least thirty days in advance of any endorsed reduction in coverage or limit, cancellation, or intended non-renewal thereof. Each policy shall provide coverage for Contractor and additional insureds with respect to claims arising from each subcontractor, if any, performing work under this Agreement, or be accompanied by a certificate of insurance from each subcontractor showing each subcontractor has identical insurance coverage to the above requirements.

*Commercial general liability and automobile liability policies shall provide an endorsement naming the City of Pacific Grove, its officers, agents, and employees as Additional Insureds with respect to liability arising out of the CONTRACTOR'S work, including ongoing and completed operations, and shall further provide that such insurance is primary insurance to any insurance or self-insurance maintained by the City and that the insurance of the Additional Insureds shall not be called upon to contribute to a loss covered by the CONTRACTOR'S insurance. The required endorsement form for Commercial General Liability Additional Insured is ISO Form CG 20 10 11-85 or CG 20 10 10 01 in tandem with CG 20 37 10 01 (2000). The required endorsement form for Automobile Additional Insured endorsement is ISO Form CA 20 48 02 99.*

Prior to the execution of this Agreement by the City, CONTRACTOR shall file certificates of insurance with the City's contract administrator and City's Contracts/Purchasing Division, showing that the CONTRACTOR has in effect the insurance required by this Agreement. The CONTRACTOR shall file a new or amended certificate of insurance within five calendar days after any change is made in any insurance policy which would alter the information on the certificate then on file. Acceptance or approval of insurance shall in no way modify or change the indemnification clause in this Agreement, which shall continue in full force and effect.

CONTRACTOR shall at all times during the term of this Agreement maintain in force the insurance coverage required under this Agreement and shall send, without demand by City, annual certificates to City's Contract Administrator and City's Contracts/Purchasing Division. If the certificate is not received by the expiration date, City shall notify CONTRACTOR and CONTRACTOR shall have five calendar days to send in the certificate, evidencing no lapse in coverage during the interim. Failure by CONTRACTOR to maintain such insurance is a default of this Agreement which entitles City, at its sole discretion, to terminate this Agreement immediately.

## 10. RECORDS AND CONFIDENTIALITY.

10.01. Confidentiality. CONTRACTOR and its officers, employees, agents, and subcontractors shall comply with any and all federal, state, and local laws which provide for the confidentiality of records and other information. CONTRACTOR shall not disclose any confidential records or other confidential information received from the City or prepared in connection with the performance of this Agreement, unless City specifically permits CONTRACTOR to disclose such records or information. CONTRACTOR shall promptly transmit to City any and all requests for disclosure of any such confidential records or information. CONTRACTOR shall not use any confidential information gained by CONTRACTOR in the performance of this Agreement except for the sole purpose of carrying out CONTRACTOR's obligations under this Agreement.

10.02. City Records. When this Agreement expires or terminates, CONTRACTOR shall return to City any City records which CONTRACTOR used or received from City to perform services under this Agreement.

10.03. Maintenance of Records. CONTRACTOR shall prepare, maintain, and preserve all reports and records that may be required by federal, state, and City rules and regulations related to services performed under this Agreement. CONTRACTOR shall maintain such records for a period of at least three years after receipt of final payment under this Agreement. If any litigation, claim, negotiation, audit exception, or other action relating to this Agreement is pending at the end of the three year period, then CONTRACTOR shall retain said records until such action is resolved.

10.04. Access to and Audit of Records. The City shall have the right to examine, monitor and audit all records, documents, conditions, and activities of the CONTRACTOR and its subcontractors related to services provided under this Agreement. Pursuant to Government Code section 8546.7, if this Agreement involves the expenditure of public funds in excess of \$10,000, the parties to this Agreement may be subject, at the request of the City or as part of any audit of the City, to the examination and audit of the State Auditor pertaining to matters connected with the performance of this Agreement for a period of three years after final payment under the Agreement.

10.05. Royalties and Inventions. City shall have a royalty-free, exclusive and irrevocable license to reproduce, publish, and use, and authorize others to do so, all original computer programs, writings, sound recordings, pictorial reproductions, drawings, and other works of similar nature produced in the course of or under this Agreement. CONTRACTOR shall not publish any such material without the prior written approval of City.

**11. NON-DISCRIMINATION.** During the performance of this Agreement, CONTRACTOR, and its subcontractors, shall not unlawfully discriminate against any person because of race, religious creed, color, sex, national origin, ancestry, physical disability, mental disability, medical condition, marital status, age (over 40), or sexual orientation, either in CONTRACTOR's employment practices or in the furnishing of services to recipients. CONTRACTOR shall ensure that the evaluation and treatment of its employees and applicants for employment and all persons receiving and requesting services are free of such discrimination. CONTRACTOR and any subcontractor shall, in the performance of this Agreement, fully comply with all federal, state, and local laws and regulations which prohibit discrimination. The provision of services primarily or exclusively to such target population as may be designated in this Agreement shall not be deemed to be prohibited discrimination.

**12. COMPLIANCE WITH TERMS OF STATE OR FEDERAL GRANT.** If this Agreement has been or will be funded with monies received by the City pursuant to a contract with the state or federal government in which the City is the grantee, CONTRACTOR will comply with all the provisions of said contract, to the extent applicable to CONTRACTOR as a subgrantee under said contract, and said provisions shall be deemed a part of this Agreement, as though fully set forth herein. Upon request, City will deliver a copy of said contract to CONTRACTOR, at no cost to CONTRACTOR.

**13. INDEPENDENT CONTRACTOR.** In the performance of work, duties, and obligations under this Agreement, CONTRACTOR is at all times acting and performing as an independent contractor and not as an employee of the City. No offer or obligation of permanent employment with the City or particular City department or agency is intended in any manner, and CONTRACTOR shall not become entitled by virtue of this Agreement to receive from City any form of employee benefits including but not limited to sick leave, vacation, retirement benefits, workers' compensation coverage, insurance or disability benefits. CONTRACTOR shall be solely liable for and obligated to pay directly all applicable taxes, including federal and state income taxes and social security, arising out of CONTRACTOR's performance of this Agreement. In connection therewith, CONTRACTOR shall defend, indemnify, and hold City harmless from any and all liability which City may incur because of CONTRACTOR's failure to pay such taxes.

**14. NOTICES.** Notices required under this Agreement shall be delivered personally or by first-class, postage pre-paid mail to the City's and CONTRACTOR'S contract administrators at the addresses listed below:

<b>FOR CITY:</b> Tom Frutchey, City Manager  300 Forest Ave. Pacific Grove, CA 93950 (831) 648-3100	<b>FOR CONTRACTOR:</b> David Phillips Owner-President 1128-A Madison Lane Salinas, CA 93907 (831) 649-6388
Sarah Hardgrave Environmental Programs Manager 2100 Sunset Dr. Pacific Grove, CA 93950 (831) 648-5722 ext. 203	

## 15. MISCELLANEOUS PROVISIONS.

15.01. Conflict of Interest. CONTRACTOR represents that it presently has no interest and agrees not to acquire any interest during the term of this Agreement which would directly or indirectly conflict in any manner or to any degree with the full and complete performance of the professional services required to be rendered under this Agreement.

15.02. Amendment. This Agreement may be amended or modified only by an instrument in writing signed by the City and the CONTRACTOR.

15.03. Waiver. Any waiver of any terms and conditions of this Agreement must be in writing and signed by the City and the CONTRACTOR. A waiver of any of the terms and conditions of this Agreement shall not be construed as a waiver of any other terms or conditions in this Agreement.

15.04. Contractor. The term "CONTRACTOR" as used in this Agreement includes CONTRACTOR's officers, agents, and employees acting on CONTRACTOR's behalf in the performance of this Agreement.

15.05. Disputes. CONTRACTOR shall continue to perform under this Agreement during any dispute. Contractor and the CITY hereby agree to make good faith efforts to resolve disputes as quickly as possible. In the event any dispute arising from or related to this Agreement results in litigation or arbitration, the prevailing party shall be entitled to recover all reasonable costs incurred, including court costs, attorney fees, expenses for expert witnesses (whether or not called to testify), expenses for accountants or appraisers (whether or not called to testify), and other related expenses. Recovery of these expenses shall be as additional costs awarded to the prevailing party, and shall not require initiation of a separate legal proceeding.

15.06. Assignment and Subcontracting. The CONTRACTOR shall not assign, sell, or otherwise transfer its interest or obligations in this Agreement without the prior written consent of the City. None of the services covered by this Agreement shall be subcontracted without the prior written approval of the City. Notwithstanding any such subcontract, CONTRACTOR shall continue to be liable for the performance of all requirements of this Agreement.

15.07. Successors and Assigns. This Agreement and the rights, privileges, duties, and obligations of the City and CONTRACTOR under this Agreement, to the extent assignable or delegable, shall be binding upon and inure to the benefit of the parties and their respective successors, permitted assigns, and heirs.

15.08. Compliance with Applicable Law. The parties shall comply with all applicable federal, state, and local laws and regulations in performing this Agreement.

15.09. Headings. The headings are for convenience only and shall not be used to interpret the terms of this Agreement.

15.10. Time is of the Essence. Time is of the essence in each and all of the provisions of this Agreement.

15.11. Governing Law. This Agreement shall be governed by and interpreted under the laws of the State of California.

15.12. Non-exclusive Agreement. This Agreement is non-exclusive and both City and CONTRACTOR expressly reserve the right to contract with other entities for the same or similar services.

15.13. Construction of Agreement. The City and CONTRACTOR agree that each party has fully participated in the review and revision of this Agreement and that any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not apply in the interpretation of this Agreement or any amendment to this Agreement.

15.14. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same Agreement.

15.15. Authority. Any individual executing this Agreement on behalf of the City or the CONTRACTOR represents and warrants hereby that he or she has the requisite authority to enter into this Agreement on behalf of such party and bind the party to the terms and conditions of this Agreement.

15.16. Integration. This Agreement, including the exhibits and any documents incorporated by reference, represent the entire Agreement between the City and the CONTRACTOR with respect to the subject matter of this Agreement and shall supersede all prior negotiations, representations, or agreements, either written or oral, between the City and the CONTRACTOR as of the effective date of this Agreement, which is the date that the City signs the Agreement.

15.17. Interpretation of Conflicting Provisions. In the event of any conflict or inconsistency between the provisions of this Agreement and the Provisions of any exhibit or other attachment to this Agreement, the provisions of this Agreement shall prevail and control.

15.18 Severability. If any of the provisions contained in the Contract are held illegal, invalid, or unenforceable, the enforceability of the remaining provisions shall not be impaired thereby. Limitations of liability and indemnities shall survive termination of the Contract for any cause. If a part of this Contract is valid, all valid parts that are severable from the invalid part remain in effect. If a part of this Contract is invalid in one or more of its applications, the part remains in effect in all valid applications that are severable from the invalid applications.

This space is left blank, intentionally.

IN WITNESS WHEREOF, City and CONTRACTOR have executed this Agreement as of the day and year written below.

**CITY OF PACIFIC GROVE**

By: Thomas Frutchey  
Thomas Frutchey, Purchasing Agent

Date: 8-8-12

By: Sarah Hardgrave  
Sarah Hardgrave, Environmental Programs Manager

Date: 8-2-12

Approved as to Form [Signature]

By: David C. Laredo  
David C. Laredo, City Attorney

Date: 8/8/2012

**CONTRACTOR**

Green Line, a Subsidiary of LF & GW Corporation

By: David Phillips  
David Phillips

owner President  
Owner-President

Date: 8-1-2012

By: Kimberly A Phillips  
(Signature of Secretary, Asst. Secretary, CFO, or Asst. Treasurer)\*  
Kimberly A Phillips  
SECRETARY - TREASURER  
Name and Title

Date: 8-1-2012

\*INSTRUCTIONS: If CONTRACTOR is a corporation, including limited liability and non-profit corporations, the full legal name of the corporation shall be set forth above together with the signatures of two specified officers. If CONTRACTOR is a partnership, the name of the partnership shall be set forth above together with the signature of a partner who has authority to execute this Agreement on behalf of the partnership. If CONTRACTOR is contracting in an individual capacity, the individual shall set forth the name of the business, if any, and shall personally sign the Agreement.

## EXHIBIT A

### SCOPE OF SERVICE/PAYMENT PROVISIONS

CONTRACTOR shall provide city wide sanitary sewer system hydroflush cleaning, tree root removal and emergency call-out services, to hydroflush at rate of \$0.63 per linear foot and to do tree root removal at rate of \$0.85 per linear foot, as well as an emergency call out work rate of \$240 per hour with a 3 hour minimum after 4:30pm weekdays and weekends and a holiday rate of \$305.00 per hour with a 3 hour minimum, with the following requirements and conditions:

- A. The CONTRACTOR shall furnish all labor, materials, tools and equipment necessary to clean sanitary sewer manholes & pipelines in a safe, timely and workmanlike manner.
- B. CONTRACTOR shall be responsible for scheduling monthly work plan update with the Public Works Environmental Programs Manager and Wastewater Division Field Supervisor to provide a map and list of lines cleaned or root cut and to receive direction and schedule for the coming month.
- C. All work performed, methods, and equipment used shall be in conformance with the prevailing state and federal occupational safety and health act. Costs from delays and losses due to operations not in conformance to these acts, specifications, or stoppages by OSHA inspectors or the designated representative, as a result of non-conformance, shall be solely borne by the contractor.
- D. The CONTRACTOR shall be solely responsible for traffic control in accordance with Manual of Work Area Traffic Control Handbook, 2009 Edition. At a minimum, placement of adequate pre-warning and detour signs to control vehicular and pedestrian traffic shall be required. Contractor shall submit a traffic control plan to the project manager and city traffic engineer for review and approval prior to commencement of work.
- E. All manholes shall be treated as confined spaces. The entry of manholes, for cleaning and inspection, shall be avoided when possible. Use of mechanical devices or equipment to remove material from pipelines and manholes should be utilized whenever possible. If entry to confined spaces is necessary, all Cal-OSHA and title 8 requirements shall be followed.
- F. The CONTRACTOR shall be responsible for performing the cleaning of the sanitary sewer system for the project using the Best Management Practices specified in the City's Sewer System Management Plan. The intent of sewer line cleaning is to remove all sludge, dirt, sand, rocks, grease, and other solids or semisolid material from the pipe. Sewer cleaning shall be performed with a hydraulically propelled high-velocity jet. The equipment shall be capable of removing tree roots, dirt, grease, rocks, sand and other materials and obstructions from the sewer lines and manholes. As a minimum, jetting of lines must be performed by pulling the high velocity spray nozzle in the direction opposite to the force created by the water pressure. The CONTRACTOR may propose an alternate method of cleaning the sewer lines at no extra cost to the city, which city may approve or deny in its sole discretion. Such alternative method must be approved in writing by the city prior to implementation.
- G. The CONTRACTOR shall use precautions to ensure that the water pressure created by the cleaning operations does not damage or cause flooding of public or private property. Also, CONTRACTOR shall

take precautions in the use of cleaning equipment, so as to prevent damage to the existing pipe and manholes. The CONTRACTOR shall be responsible for all costs involved in damage to public or private property through its cleaning operation. Any damage to the pipe shall be repaired by the CONTRACTOR immediately at no cost to the city.

- H. The designated sanitary sewer sections shall be cleaned using hydraulically propelled, high-velocity jet equipment. Selection of the equipment used shall be based on the conditions of the lines at the time the work commences. The equipment and methods selected shall be in accordance with industry and the city's best management practices. The equipment shall be capable of removing tree roots, dirt, grease, rocks, sand, and other materials and obstructions in the sewer lines and manholes. If cleaning of the entire section cannot be successfully performed from one manhole, then the equipment shall be set up at the upstream manhole and cleaning attempted again.
- I. The following is a list of equipment that will not be allowed to be used:
  - 1. Hydraulically propelled equipment: sewer balls or movable dam
  - 2. Mechanically powered equipment: bucket machines
- J. The following is a list of cleaning equipment that will be allowed, depending upon the application:
  - 1. High-velocity hydraulic (hydro-cleaning) equipment: all high-velocity sewer cleaning equipment shall be constructed for ease and safety of operation. The equipment shall have a minimum working pressure of 2000 psi at a 30-gpm rate. The nozzles shall be capable of producing a scouring action, in the lines designated to be cleaned, to remove debris and sand from the flow line. Equipment shall also include a high-velocity jetter for washing and scouring manhole walls and floors. The jetter shall be capable of producing flows from a fine spray to a solid stream. The equipment shall carry a nominal 1000 gallon minimum water tank, auxiliary engines, pumps, and hydraulically driven hose reel. The equipment shall have a minimum of 650 feet of high-pressure hose.
  - 2. Root removal equipment: hydraulic or mechanical driven cutters may be used as necessary to remove root intrusion. Chain flail nozzles and warthog type nozzles may be used for root removal.
- J. As a condition of compliance the CONTRACTOR shall obtain the required permits for a meter to access to water from fire hydrants by Monterey Peninsula Water Management District (MPWMD) and Cal American Water (CalAm).
- K. The CONTRACTOR shall be available for emergency callouts, in addition to ongoing line cleaning activities.
- L. As needed, CONTRACTOR shall provide CCTV services of sewer and/or stormdrain lines to investigate the condition of the facilities and to identify possible areas of cross connections.

City shall pay CONTRACTOR up to, but not to exceed, \$200,000 per fiscal year for two years in accord with the terms of the Section 6.01 of this Agreement for completion of all work specified above.