

SEWER SYSTEM MANAGEMENT PLAN

May 2018

Rev 2

Prepared for:

San Luis Obispo County Community College District

WDID No. 3SSO10261

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Table of Contents

Certification Statement	3
List of Acronyms and Abbreviations	4
Plan Introduction	5
Element 1 – Goals	10
Element 2 - Organization	12
Element 3 - Legal Authority	20
Element 4 – Operations and Maintenance	23
Element 5 – Design & Performance Provisions	29
Element 6 - Overflow Emergency Response Plan.....	31
Element 7 - Fats, Oils and Grease (FOG) Control Program.....	42
Element 8 –System Evaluation and Capacity Assurance Plan	45
Element 9 - Monitoring, Measurement and Program Modifications	48
Element 10 – SSMP Audits.....	54
Element 11 –Communication Program	58
Appendix A – Facilities Organization Chart	60
Appendix B – Operations and Maintenance	61
Appendix C – Design and Testing Standards.....	62
Appendix D – Overflow Emergency Response Plan.....	63
Appendix E - FOG Control Program.....	64
Appendix F – System Evaluation and Capacity Assurance Plan.....	65
Appendix G – Monitoring, Measurement and Program Modifications	66
Appendix H – SSMP Audit.....	67
Appendix I – Communication Program.....	68

Certification Statement

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

Terry Reece
Director of Facilities Services, Planning and Capital Projects, Maintenance, Operations
and Grounds

List of Acronyms and Abbreviations

APCD	Air Pollution Control District
BMP	Best Management Practices
Cal OES	California Office of Emergency Services
CCTV	Closed Circuit Television
CDFG	California Department of Fish and Game
CIP	Capital Improvement Plan
CIWQS	California Integrated Water Quality System
CRWA	California Rural Water Association
CWEA	California Water Environment Association
District	San Luis Obispo County Community College District - Cuesta College
EH	San Luis Obispo County Environmental Health Department
FLSA	Fair Labor Standards Act
FOG	Fats, Oils and Grease
FSE	Food Services Establishment
GWDR	General Waste Discharge Requirement
HMA	High Maintenance Area
I/I	Inflow & Infiltration
LRO	Legally Responsible Official
mgd	Million Gallons per Day
NPDES	National Pollution Discharge Elimination System
OERP	Overflow Emergency Response Plan
O&M	Operations and Maintenance
PM	Preventative Maintenance
POTW	Publically Owned Treatment Works
RWQCB	Regional Water Quality Control Board
SCADA	Supervisory Control and Data Acquisition
SCSMP	Sewer Collection System Management Plan
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SWRCB	State Water Resources Control Board
UPC	Uniform Plumbing Code
WDR	Waste Discharge Requirement
WWTP	Wastewater Treatment Plant

Plan Introduction

This Sewer System Management Plan (SSMP) has been developed in accordance with the State Water Resources Control Board (SWRCB) and Regional Water Quality Control Board (RWQCB) requirements. All elements within this plan contain State and Regional Board requirements along with current policies and procedures of the San Luis Obispo Community College District (District) at Cuesta College. Appendix information, goals and any plans for improvement are also included and can be found within the specific element being discussed. The SSMP is a working document and will be reviewed and modified as appropriate during a period not to exceed every twelve months.

0.1 Requirement Background

The Statewide General Waste Discharge Requirement (GWDR) Order No. 2006-0003-DWQ applies to all public agencies that own/operate a sanitary sewer system comprised of more than one mile of pipe or sewer lines which convey untreated wastewater to a publicly owned treatment facility within the State of California.

One of the requirements of the GWDR is the preparation and implementation of a system specific SSMP. By preparing and practicing the procedures in this Plan, the occurrence of sewer spills should decrease.

The intent of this SSMP is to satisfy the requirements of both the RWQCB and SWRCB Waste Discharge Requirements (WDR), Order No. 2006-0003-DWQ. The organization of this document is consistent with RWQCB and SWRCB guidelines. Many of the SSMP requirements are currently in practice by the District. The SSMP includes eleven elements, as follows:

- I. Goals
- II. Organization
- III. Legal Authority
- IV. Operations and Maintenance
- V. Design and Performance Standards
- VI. Overflow Emergency Response Plan (OERP)
- VII. Fats, Oils & Grease (FOG) Control Program
- VIII. System Evaluation and Capacity Assurance Plan (SECAP)
- IX. Monitoring, Measurement and Program Modifications
- X. SSMP Audits
- XI. Communication Plan

Each element is organized into sub-sections, as follows:

- Identification of the associated appendix and list of supporting information included in the appendix.
- Description of both the State and Regional requirements for the element identified.

- Discussion of the required element.

Supporting information for each element will be included in an appendix associated with that section, if applicable. In general, information expected to require relatively frequent updates (such as names and phone numbers of Staff) are included in the appendices, as well as other supporting information, such as forms and schedules.

0.2 System Overview

The District's sewage collection system is located on the Cuesta College campus, comprised of 0.25 square miles on relatively flat terrain, gently sloping to the southwest towards Chorro Creek. The Campus includes one cafeteria (equipped with a grease trap, serviced monthly) serving food to Campus students and faculty. The District facilities service the college itself, the grounds and its food service area. In addition, a portion of the collection system services the San Luis Obispo County Office of Education, and County of San Luis Obispo General Services, both located immediately north of Highway 1. District Staff is responsible for providing operations and maintenance of its sewer system, utility services, water, ground maintenance and custodial services. The entire District collection system that serves Campus and the two above named entities is owned, operated and maintained by the District. Costs for recent sewer construction (see Section 4.5) upgrades were shared by all three parties, based on respective proportionate shares based on flow contribution to the sewer collection system.

Total wastewater flows from the District, San Luis Obispo County Office of Education, and County of San Luis Obispo General Services, are estimated as follows:

District:	1.1 mgd
SLO Office of Education:	0.09 mgd
County General Services:	0.13 mgd

All of the above flows are commercial/institutional in nature. No residences are served in this collection system. The above flows were estimated dry weather flows based on review of water use records in 2006 as part of the August 2006 wastewater collection system study, which preceded the recent 2010 District sewer upgrade project, replacing 4,700 LF of gravity sewer and constructing a new gravity sewer bridge crossing Chorro Creek.

Today, the District maintains a total area of 160 acres (0.25 square miles) of land and is located adjacent to California-1 State Highway, twenty-one miles South of the City of El Paso de Robles and seven miles west of the San Luis Obispo downtown area. The District is also seven miles south east of Morro Bay. As illustrated below in **Figure 0-1**, Chorro Creek runs through the southern portion of the District's boundary.

The District's facility master plan is updated every 5 years. According to the current 2011-2016 facility master plan, the Campus is built-out, and the existing sewer collection system was also master planned to serve current-day build-out conditions. Thus, there

are no future expansions planned for the Campus, and thus the existing gravity sewer system will be hydraulically adequate for years to come.

Figure 0-1: District Service Area



The District owns and operates the local campus collection system. District discharge is transported via gravity trunk sewer lines to the California Men's Colony WWTP (owned and operated by CMC) where the wastewater is treated. The CMC WWTP is regulated by NPDES Permit No. CA0047856. The District's sewer collection system does not flow through any other entity wastewater collection system prior to arrival at the CMC WWTP.

The District operates and maintains an effective collection system which includes:

- Over 1.5 miles of gravity sewer main (120 LF of gravity sewer is exposed crossing Chorro Creek; all remaining gravity sewer is buried). There are no sewer lift stations or force mains or sewer siphons.
- 50 manholes, 100 pipeline segments
- The school can service up to 6,500 students (based on District Facility Master Plan and site facility constraints).

As indicated in Section 4.5, 4,700 LF of new 8" and 10" sewer was constructed/replaced in 2011. Of the total 4,700 LF, 3,300 LF is 10" diameter PVC sewer, and 1,400 LF is 8"

diameter PVC sewer. The remaining sewer system has pipelines ranging in age from 5 years old to over 40 years old. The District has a total of 12 major laterals connecting to the trunk sewer system, with 30 service laterals serving the 30 buildings on Campus. All of the sewer laterals are owned by the District, serving Campus facilities.

Local land use in and around the District campus is a combination of agriculture, residential, commercial, professional office, a penal complex, public facilities, parks and open space.

There is also a regional wastewater collection/conveyance system in this vicinity, which also serves a portion of the southeast corner of Campus, California Men's Colony, and National Guard (Camp San Luis Obispo). The CMC WWTP provides wastewater treatment service to CMC, Camp SLO, County of San Luis Obispo Office of Education, and San Luis Obispo County Department of General Services.

The RWQCB, Central Coast Region 3 oversees the sanitary sewer system requirements as defined in State Water Quality Order No. 2006-003 DWQ.

The District retains ownership and direct responsibility for wastewater collection and conveyance systems up to the point of discharge to the wastewater treatment facility. It is incumbent upon the District to protect the environment to the greatest degree possible and ensure the collection system is protected and utilized properly. The responsibility includes preventing overflows which may include restricting or prohibiting the volume, type, or concentration of wastes added to the system.

Element 1 – Goals

This SSMP element identifies goals for management, operations and maintenance of the sewer collection system and discusses the role of the SSMP in supporting these goals. These goals provide focus for operations Staff to continue high-quality work and implement improvements in the management of the District's sewer collection system.

Element 1: Goals Appendix

There is no appendix associated with Element 1.

1.1 Regulatory Requirements

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

The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur.

1.2 Goals Discussion

The District has developed the following SSMP goals which will contribute to the proper management of the collection system and will assist in minimizing the frequency and impacts of SSO. This task will be accomplished through providing proper guidance for appropriate maintenance, operations management, and emergency response.

The District's SSMP goals are as follows:

1. Maintain or improve the condition of the collection system infrastructure in order to provide reliable service now and into the future.
2. To provide adequate capacity to convey peak dry weather and wet weather wastewater flows.
3. Minimize the number and impact of Sanitary Sewer Overflows (SSOs).

Element 2 - Organization

The Organization element of the SSMP identifies the District Staff who are responsible for implementing this SSMP, responding to SSO events, and meeting the SSO reporting requirements. The Legally Responsible Official (LRO) is also designated below, in order to meet the SWRCB requirements for completing and certifying SSO reports.

The following section outlines the District organization, general and SSMP responsibilities of personnel, authorized representatives, and chains of communication for SSO responding and reporting. Names and contact information of current Staff and are available in **Appendix A** and will be revised when changes occur. Information regarding current Board of Trustees positions can be found in the following link: <https://www.cuesta.edu/about/leadership/boardtrustees/index.html>.

Supporting information for Element 2 is included in **Appendix A** which contains the following documents:

- **SLO County Community College District Organization Chart**

2.1 Regulatory Requirements

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

The SSMP must identify:

- (a) The name of the responsible and authorized representative as described in Section J of this Order.
- (b) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and
- (c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including persons responsible for reporting SSOs to the State or Regional Water Board and other agencies if applicable (such as County Health Officers, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (OES)).

The aforementioned WDR Order No. 2006-0003-DWQ Section J states:

All applications, reports, or information shall be signed and certified as follows:

- (i) All reports required by this Order and other information required by the State or Regional Water Board shall be signed and certified by a person designated, for a municipality, state, federal or other public

agency, as either a principal executive officer or ranking elected official, or by a duly authorized representative of that person, as described in paragraph (ii) of this provision. (For purposes of electronic reporting, an electronic signature and accompanying certification, which is in compliance with the Online SSO database procedures, meet this certification requirement.)

- (ii) An individual is a duly authorized representative only if:
 - (a) The authorization is made in writing by a person described in paragraph (i) of this provision; and
 - (b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.

2.2 Organization Discussion

The following section outlines the District Maintenance, Operations and Grounds organization, SSMP responsibilities of personnel, authorized representative, and chains of communication for SSO response and reporting. Key Staff members that are responsible for implementing and maintaining the SSMP are also addressed.

The District is governed by a Board of six Trustee members (Board) and meets the first Wednesday of every month at 4 pm. Their responsibility is to make decisions in the best interest of the District. The Board establishes policies, sets goals and objectives, approves the annual budget, approves expenditures and performs other related functions.

Daily management of maintenance, operations and grounds is carried out by the District Director. The Director reports directly to the Vice President who appraises the Board.

The District maintains a web site, at: <http://www.cuesta.edu/>. The latest version of the adopted SSMP will be posted on this web site.

Responsible and Authorized Representatives [WDR D.13(ii)(a)]

The name of the authorized representative described in WDR Section J above is listed in Table 2-1:

Table 2-1: Cuesta College Authorized Representative

Name	Title	CIWQS SSO Database
Terry Reece	Director of Maintenance, Operations and Grounds	Legally Responsible Official

2.3 Maintenance, Operations and Grounds Organization

The Organization table showing staff responsibilities for the District SSMP is illustrated in **Table 2-2**. In most cases the Director of Maintenance, Operations and Grounds will be the leading authority of the SSMP. The Director may choose to delegate certain tasks but the overall responsibility will remain with the Director.

The Director of Maintenance, Operations and Grounds are the authorized representatives responsible for implementation of the SSMP and California Integrated Water Quality System (CIWQS) reporting.

The Director of Maintenance, Operations and Grounds will be responsible for, and has the authority for the maintenance and operations of the sewer system.

Maintenance Staff is on-call twenty-four (24) hours per day. The Director of Maintenance, Operations and Grounds is also on-call and available for emergencies, twenty-four (24) hours per day. Currently, in the event of a spill, the District has the Staff to perform containment and cleanup. The spills that the District has experienced involve minor spills at public restrooms where toilets are either plugged or leaking resulting from usage or vandalism. In December 2010 there was a Category 1 spill caused by a tree falling during a storm and breaking a sewer line where it crossed Chorro Creek.

Figure 2-2: District Staff SSMP Responsibilities and Contact Information

Name and Title	SSMP Responsibilities	Contact Information
Terry Reece Director of Maintenance, Operations and Grounds <i>Cuesta College</i>	<ul style="list-style-type: none"> ▪ The Director directs the Operations and Maintenance and contracted staff in the management of all eleven (11) SSMP Elements. 	(805) 235-6576 Cell (805) 546-3283 Office E-mail: treece@cuesat.edu

Name and Title	SSMP Responsibilities	Contact Information
Administrative Staff <i>Cuesta College</i>	<ul style="list-style-type: none"> ▪ The District’s administrative staff receive phone calls, e-mails, and faxes from the public and provides information to the Operations and Maintenance, to assist with the implementation of: <ul style="list-style-type: none"> - Element 4 – Operation and Maintenance Program; - Element 6 – Overflow Emergency Response Plan; - Element 11 – Communication Program. ▪ In a SSO response, could provide a carefully pre-scripted message for citizens who call with general questions. 	(805) 546-3283 Office
Steve Tanaka Contracted Engineers <i>Wallace Group – Contract with Cuesta College</i>	<ul style="list-style-type: none"> ▪ Wallace Group is under contract to assist the Director to manage the CIP and design and inspection services in the implementation of: <ul style="list-style-type: none"> - Element 4 – Operation and Maintenance Program, Rehabilitation and Replacement Plan; - Element 5 – Design and Performance Provisions; and - Element 8 – System Evaluation and Capacity Assurance Plan. 	(805) 544-4011 Office E-mail: StevenT@wallacegroup.us
Bob Madeline District Plumber <i>Cuesta College</i>	<ul style="list-style-type: none"> ▪ Performs routine operation, preventative maintenance, and repair and major maintenance services for as described in Element 4 – Operation and Maintenance Program. ▪ Communicates maintenance results to District Director ▪ Responsible under the direction of the District Director for the following SSMP Elements: <ul style="list-style-type: none"> - Element 4 – Operation and Maintenance Program; 	(805) 546-3283 Office

Name and Title	SSMP Responsibilities	Contact Information
	<ul style="list-style-type: none"> - Element 6 – Overflow Emergency Response Plan ▪ Major O&M activities such as annual line cleaning will be conducted by contracted staff. 	

2.6 Chain of Communication for Responding to SSOs

In the event of a report of a possible wastewater spill, or when staff is contacted concerning odors, standing water or an overflowing manhole, the following steps are taken to verify the report and ensure the safety of the public.

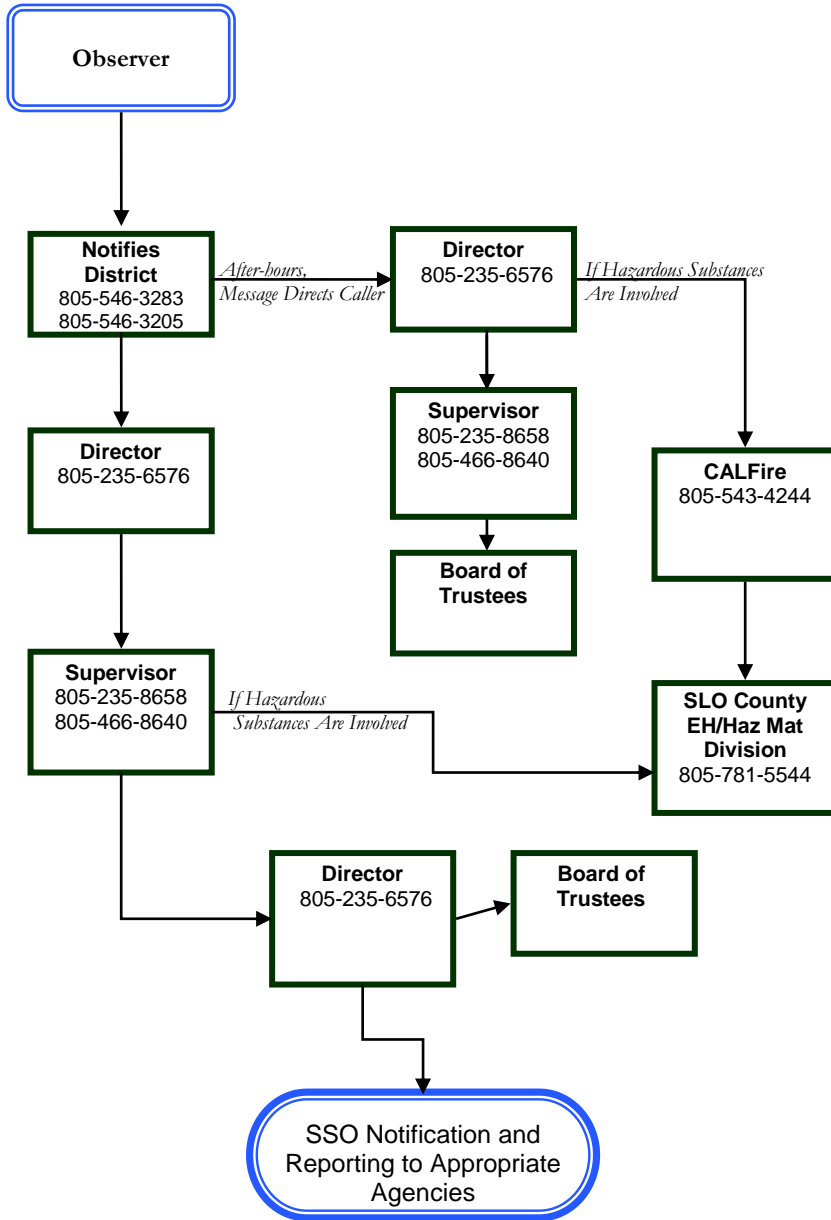
1. The receiver of the call (District Office or Campus Police) will begin filling out a Sanitary Sewer Overflow (SSO) Incident Report Form. This report includes the location and any description of the problem as well as the name and contact information of the caller.
2. The call receiver will contact the on-duty maintenance staff member (first responder) by hand-held radio or cell phone immediately and direct staff to the described location. The Incident Report Form is provided to the first responder.
3. The first responder will proceed to the location to verify report.

If the spill is verified the following actions are to be taken:

1. The first responder will contact the Director and request appropriate support. The Director will keep administrative staff informed of progress as necessary.
2. The Director may notify the Vice President, Board of Trustees or other staff as necessary.
3. The Director or first responder will notify all appropriate regulatory agencies as required by the category of spill.
4. The applicable agencies that would be contacted in order include the following:
 - Cal OES must be contacted within two (2) hours of an SSO, when the SSO is greater than or equal to 1,000 gallons to a surface water (CAT 1 Spill).
 - RWQCB may be contacted to advise them of a spill (optional).

The chain of communication for responding to SSOs is defined further and graphically portrayed in Figure 2-2, and is also repeated in Section 6, Figure 6-1.

Figure 2-1: Chain of Communication for Responding to Sewer System Overflows



SSO notification is outlined in SSMP Element 6 – Overflow Emergency Response Plan. The contact information and notification requirements associated with notifying RWQCB and other applicable agencies, such as Cal OES, are included in that SSMP Element.

Element 3 - Legal Authority

This element of the SSMP describes the legal authority of the District for providing sanitary sewer service, and to prevent illicit discharges into the sanitary sewer system.

Element 3: Legal Authority Appendix

There is no information for the Legal Authority Appendix.

3.1 Regulatory Requirements

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

Each Enrollee must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:

- Prevent illicit discharges into its sanitary sewer system (examples may include Inflow & Infiltration (I/I), storm water, chemical dumping, unauthorized debris and cut roots, etc.);
- Require that sewers and connections be properly designed and constructed;
- Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;
- Limit the discharge of fats, oils, and grease and other debris that may cause blockages; and
- Enforce any violation of its sewer ordinances.

3.2 Inspections and Maintenance

The San Luis Obispo County Community College District is a self-regulating Community College within the California Community College system, with publicly elected officials as its governing Board. Under this authority, the District/Cuesta College has legal authority to:

- Prevent illegal discharges into its system (e.g., storm water or chemical dumping).
- Require that sewers and connections be properly designed and constructed.
- Ensure proper installation, testing, and inspection of new and rehabilitated sewers (such as new or rehabilitated collector sewers and new or rehabilitated laterals).
- Ensure access for maintenance, inspection, or repairs of all portions of the system operated by the District.
- Limit fats and greases and other debris that may cause blockages in the collection system.

3.3 Design and Construction

See Section 3.2 above and Element 5: Design and Performance Provisions.

3.4 FOG Control

See Section 3.2 above.

Element 4 – Operations and Maintenance

This element of the SSMP discusses the activities and control measures employed by the District to keep the collection system in efficient and good working condition.

Element 4 - O&M Appendix

Supporting information for Element 4 is included in **Appendix B** which contains the following information:

- Sewer Collection System and Storm Water Maps
- Map Revision History Log
- Sewer Line Cleaning and Routine Manhole Inspection log
- Manhole Inspection Report
- Critical Parts and Equipment Log
- Annual Budget
- CCTV Analysis

4.1 Regulatory Requirements

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

The SSMP must include those elements listed below, which are appropriate and applicable to the Enrollee's system:

- (a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable storm water conveyance facilities;
- (b) Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;
- (c) Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time

schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;

- (d) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and
- (e) Provide equipment and replacement part inventories, including identification of critical replacement parts.

4.2 Collection System Map

The District maintains an up-to-date map of the collection system showing gravity line segments and manholes. Maps are updated as needed, on an on-going basis. Given the small quantity of manholes and sewers, and the fact that the Campus is built-out with no pipeline additions planned for the foreseeable future, the District updates Campus maps when warranted. Field changes are noted on drawings, and the overall sewer system map is updated in AutoCAD. Map updates are tracked in the Map Update Log found in **Appendix B**. The District also maintains a storm water collection and conveyance map as a layer of their GIS system. District staff utilizes this information in the event of a Sanitary Sewer Overflow (SSO) to identify potential pathways for SSOs that may flow to local surface waters.

As indicated in Section 4.5, the District recently (2011) replaced 4,700 LF (over 50%) of the main trunk sewer system (with 8" and 10" diameter SDR 35 PVC pipe) to minimize inflow/infiltration to the wastewater plant. In addition, the Chorro Creek bridge crossing was replaced, to ensure long-term security and safety of the gravity sewer crossing this Creek to the WWTP. The District's collection system is all gravity flow, with no sewage lift stations. The District has a single easement for approximately 3,200 LF of 10" sewer that traverses Camp San Luis Obispo property before crossing Chorro Creek to the CMC WWTP.

The collection system and storm water maps are included for further reference in **Appendix B**.

4.3 Preventative Maintenance

Preventative operation and maintenance activities are performed by District Staff and outside contractors on an as-needed basis. Such preventative activities include collection system maintenance where needed and spot cleanings and CCTV inspections targeted at known or suspected problem areas. Over the years, the District has not had any blockages due to debris, root intrusion or FOG, and has no identified "hot spots" that require repeated service. The District, through their Work Order System, electronically tracks and logs maintenance of their sewer system. A copy of the District's Work Order System is included as Figure 4-1.

Line Cleaning and Routine Manhole Inspection

In addition to tracking sewer line cleaning in the above-mentioned work order system, the District will begin implementing a Sewer Line Inspection and Manhole Inspection Log

during line cleaning to track; linear footage of line being cleaned, location, line size and material and conditions of these assets. An example of this form is included in **Appendix B**.

Manhole Inspections

During the line cleaning and manhole inspections described above, the District will also utilize a Trunk Line Manhole Inspection Form for manholes that require a more detailed inspection and summary of conditions. These forms are provided to provide detailed information allowing staff to rank the condition of manholes that are identified for repair, rehabilitation or replacement in future Capital Improvement Plans (CIP). An example of this form is located in **Appendix B**.

CCTV Inspection

The District completed a formal CCTV Inspection Program which televised the entire collection system in 2017 utilizing contracted services. The criteria for these services was to inspect each pipeline and include a detailed report for all defects. This information was utilized to make recommendations for the development of future CIP and scheduled maintenance activities. 2017 CCTV results and recommendations are located in **Appendix B**.

The District also maintains a CCTV push camera system utilized by staff to identify any problems that may be encountered in the field. Any issues identified in the field are reported to the Director and addressed based on the issue identified. Records of these inspections are documented in the District Work Order System.

Identified problem areas are remediated, and/or scheduled for future capital improvement project depending on nature and severity of identified problem.

Reporting

The Director will report annually to the Board of Trustees on the results of; sewer line cleaning, manhole inspections and CCTV investigations.

Figure 4-1. District Physical Plant Work Order System

The screenshot shows a web-based interface for creating a new ticket. The page title is "RT for Physical Plant Work Orders" and the user is logged in as "Skilled Mainte". The main heading is "Create a new ticket". The form includes the following fields and options:

- Queue: Skilled Maintenance
- Status: new
- Owner: "Nobody in particular" <> (Nobody)
- Requestors: [Text Field]
- Oc: [Text Field]
- Admin Oc: [Text Field]
- Subject: [Text Field]
- Impacts instruction? (Yes/No radio buttons)
- Building/Room Number or Exact Location (Text Field)
- Safety Issue? (Yes/No radio buttons)
- Date Needed (Text Field)
- Telephone or extension number (Text Field)
- Attach file: [Text Field] [Browse...] [Add More Files]
- Describe the issue below: [Text Area]
- Create button

Red error messages are visible: "Input must match [Mandatory]" for the Requestors, Oc, and Telephone fields.

4.5 Rehabilitation and Replacement Plan

In an effort to control infiltration and inflow, the District plans to continue monitor the sewer system to identify deficient areas of the sewer system. Past problem areas have been identified and addressed. As indicated below, over 50% of the trunk lines in the sewer collection system are new as of 2011, due to the below-described sewer upgrade project.

Past studies (2005) conducted by the District indicated a significant inflow/infiltration problem in some of the collection system areas. The RWQCB required that these issues be addressed by the District, San Luis Obispo Office of Education, and County General Services, and as such these Parties are named in a cleanup and abatement Order No. R3-2005-0036. The District and their consultant, in conjunction with Office of Education and County General Services implemented a significant project in 2011 to replace 4,700 LF (over 50% of the District's trunk sewer collection system) of aging gravity sewer to address specific areas of concern on the District's existing sewer line that conveys the Campus wastewater south to the California Men's Colony wastewater treatment plant.

As part of this past study, one reach of sewer, along the western perimeter of the Campus, that is shared by Office of Education and County General Services, was video inspected at that time (2005), and a number of sags, root intrusion, and line breaks were documented. These deficiencies were remedied by the replacement sewer project. The sewer replacement project, completed in 2010, included the construction of a new gravity sewer bridge crossing Chorro Creek, to further ensure the integrity of gravity sewer service to the CMC WWTP.

Capital Improvement Projects (CIP) for the District's sewer system are conducted on an as-needed basis. As indicated earlier, the District's Campus is built-out, and the sewer system was hydraulically designed for this build-out wastewater flow, and thus no new sewer upgrades (due to lack of capacity) are planned for the foreseeable future. When the need for a sewer rehabilitation project arises, the District's overall Capital Budget is utilized to fund projects. A recent Bond Measure was passed for Campus wide infrastructure rehabilitation in the amount of \$ 275 million. The annual Budget based on this source of funding allocates \$250,000 for sewer improvements throughout the campus. The budget for these improvements can be found in the following link to the District's website: https://www.cuesta.edu/about/documents/fiscal-docs/Adopted_Budget_2017-2018.pdf.

4.6 Training

The District has two staff that are responsible for maintaining the District sewer system. The District recognizes the importance of providing training on a regular basis for Staff in collection system operations and maintenance. The staff level maintenance worker is a General Plumber, and Director and staff both have been provided confined space entry training and annual refresher courses. Sewer maintenance staff that may be exposed to raw sewage are also provided hepatitis vaccinations to safeguard against this potential exposure. There is currently no formal training program for District Operations and Maintenance activities as most significant maintenance is conducted by licensed contractors. Staff is trained on new equipment as warranted, when purchased. Individual job descriptions require the skill sets necessary to operate and maintain the District sewer system.

4.7 Inventory

Snaking and jet/cleaning equipment is kept on hand for minor maintenance cleaning and emergency cleaning of lines. The District also maintains Closed Circuit Television (CCTV) equipment for 4" laterals. When CCTV of the trunk sewers is warranted, the District contracts with a local qualified Contractor that owns and maintains their own video equipment. A critical parts and equipment list is included in **Appendix B**.

Element 5 – Design & Performance Provisions

This Element of the SSMP covers the standards used by the District to ensure proper design and construction of any additions or repairs to the collection system. Also covered is the procedure used for inspection and testing of repair and rehabilitation projects.

Element 5 – Design & Standards Appendix

Pertinent County of San Luis Obispo Sewer Standards are included in **Appendix C**. The District relies on County of San Luis Obispo sewer design standards. The Director maintains a copy of these current standards at the office and requires any consultants to also incorporate County design standards into any sewer design projects. The latest 2011 County standards (and future updated standards) can be accessed at the following address:

<http://www.slocounty.ca.gov/PW/DevServ/PublicImprovementStandards.htm>

5.1 Regulatory Requirements

WDR Order No. 2006-0003-DWQ Section D.13(v) states that the SSMP must identify:

- (a) Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and
- (b) Procedures and standards for inspection and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

5.2 Design and Construction Standards

The District uses consultants to assist with sewer design and repair. The consultants follow engineering industry standards and applicable County of San Luis Obispo sewer design standards and specifications. The District does not maintain their own design standards. Design standards include sewer manhole spacing, sewer pipeline slope/velocity criteria, materials of construction, trenching and backfill requirements, and other standards for appurtenances such as sewer cleanouts and manhole frames, covers and base/cone. The District maintains a copy of the most current County of San Luis Obispo design and construction standards in the Director's office.

5.3 Inspection Standards

The District also defers to County standards for inspection and testing. When a new sewer is installed it is subjected to low pressure air testing, mandrel testing and video inspection per the County's standards.

The District's standard procedures require work to not be placed into service and accepted until satisfactory inspection and testing are completed. The District provides continuous inspection during the construction of sewer facilities and believes that proper installation is the key element to ensure proper operation and maximum life expectancy of the collection system.

Element 6 - Overflow Emergency Response Plan

The element discusses the District's Overflow Emergency Response Plan (OERP).

Element 6 - OERP Appendix

Supporting information for Element 6 is included in **Appendix D** which contains the following documents:

- Overflow Emergency Response Procedures

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:

1. Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
2. A program to ensure appropriate response to all overflows;
3. 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;
4. Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the OERP and are appropriately trained;
5. Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and
6. 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 SSO Response

Staff is on-call twenty-four (24) hours per day, seven (7) days per week. The goal for responding to an SSO during business hours is 15 minutes from receipt of call. During non-business hours, the District's goal for responding to a SSO is 45 minutes.

Cuesta College operations, maintenance, and emergency response activities are funded annually through an adopted budget. Staff maintains much of the equipment necessary to maintain the sewer collection and conveyance system and respond to SSOs.

Examples of this equipment are; sewer jetter, CCTV equipment, and spill containment materials. The District also has a list of vendors where emergency equipment such as emergency bypass pumps can be rented in the event of an emergency (See Element 4 Operations and Maintenance: Critical Parts and Equipment).

The District's policy is to respond to all spills within the service area boundary and to take all steps possible to prevent the spills from reaching the storm drains, flood control channels, or waters of the State.

The District developed Emergency Operating Procedures (EOPs) for emergency response to SSOs to help ensure appropriate response to all SSOs within the system. These procedures are included in **Appendix D**. Training on these procedures was conducted in 2017 with these procedures planned to be implemented in the event of a SSO. Element 2 of this SSMP addresses the organizational structure and responsibilities of District staff. District EOPs also discuss roles and responsibilities for SSO response activities. The lines of authority during an emergency are shown in **Figure 6-1**.

6.2 SSO Notification

The District receives telephone calls at one main telephone number during business hours (546-3283) and the campus police (546-3100 x3205) after hours. The District publishes both telephone numbers on their answering service, in the local telephone books and on the Cuesta College website (<http://www.cuesta.edu/maintenance/>).

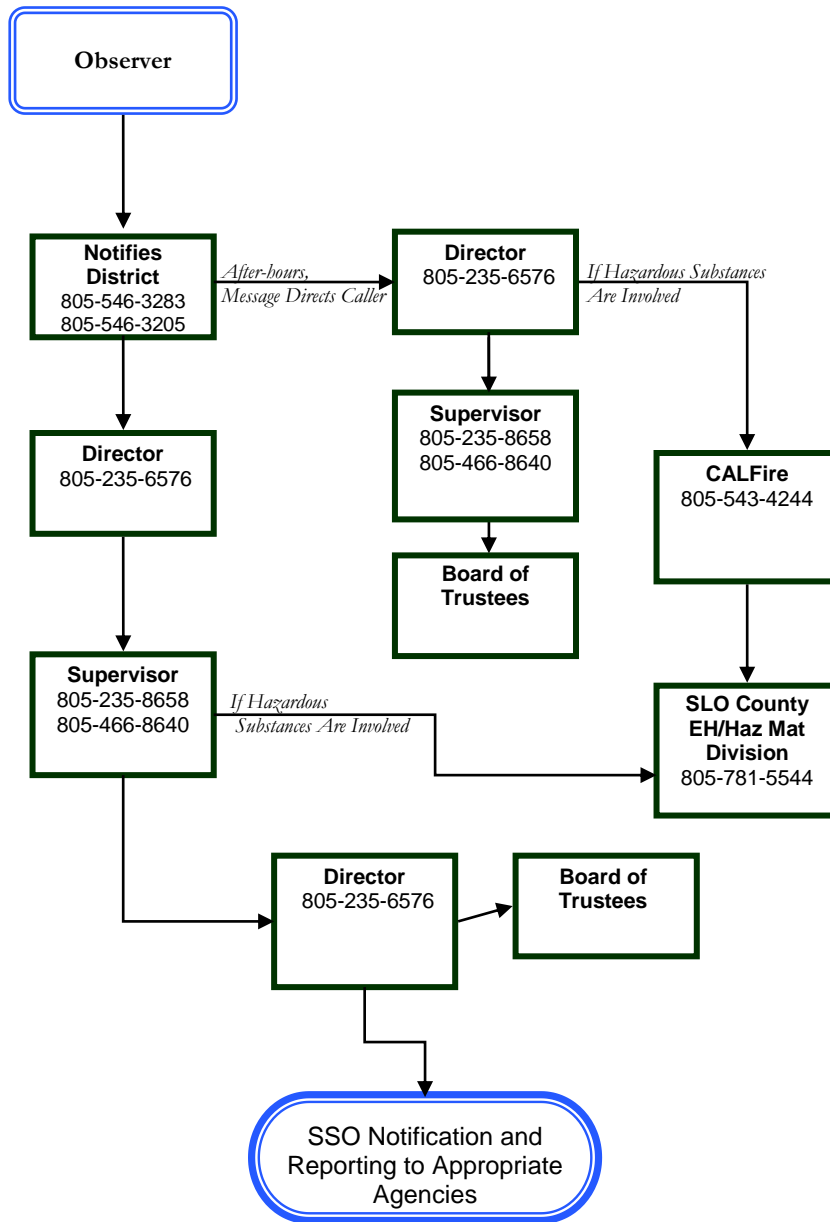
When District Staff members notice an SSO during the course of their regular activities, they immediately notify the main office and begin responding to the situation immediately, if applicable.

The Director and/or delegated maintenance Staff are on standby twenty-four (24) hours per day, seven (7) days per week and are aware of low manholes that may have the highest risk of overflow. In the event of a spill, containment followed by dry chlorine and wash down protocol is used. If the event occurs during non-office hours, the Campus police will contact the appropriate Staff using emergency phone numbers.

6.3 SSO Response and Reporting

The Chain of Communication for responding to SSOs begins with contact at the District office. The District telephone contact number is (805) 546-3283. This telephone number is answered Monday through Friday, 8:00am to 5:00pm. Between the hours of 5:00 p.m. and 8:30 a.m., call (805) 546-3283 or Campus Police at (800) 546-3100 x3205. On weekends the District utilizes an emergency telephone service which notifies the Director or appropriate individual. Figure 6-1 illustrates the chain of communication for Cuesta College/District staff for SSO notifications.

Figure 6-1 SSO Reporting Chain of Command



In the event of a report of a possible wastewater spill, or when staff is contacted concerning odors, standing water or an overflowing manhole, the following steps are taken to verify the report and ensure the safety of the public.

1. The receiver of the call (District Office or Campus Police) will begin filling out an *SSO Incident Report Form*. This report includes the location and any description of the problem as well as the name and contact information of the caller.
2. The call receiver will contact the on-duty maintenance staff member (first responder) by hand-held radio or cell phone immediately and direct staff to the described location. The *SSO Response Checklist* is provided to the first responder.
3. The first responder will proceed to the location to verify report.
4. If the spill is verified the following actions are to be taken:
 - The first responder will contact the Director and request appropriate support. The Director will keep administrative staff informed of progress as necessary.
 - The first responder will assess the situation and make an estimate to determine the category of spill.
5. Once the Category of spill has been determined the appropriate *SSO Response Checklist* will be started.

SSO Notification Procedure

SSO notification procedures vary based on whether the SSO is classified as a Category 1, Category 2, Category 3, or PLSD. After notifying the RWQCB of any SSO, the Director or their designee should email RWQCB Staff, Jon Rokke: Jon.Rokke@waterboards.ca.gov to confirm that the report was submitted and received.

Category 1 SSOs

For any discharges of sewage that result in a discharge to a drainage channel or a surface water or to the District storm drain system and is not fully captured and returned to the sewer system or disposed of properly, the District shall, as soon as possible, but no later than two (2) hours after becoming aware of the discharge, notify the California Governor's Office of Emergency Services (Cal OES) at 1-800-852-7550.

Category 2 SSOs

For a SSO 1,000 gallons or greater in volume that does not discharge to a drainage channel or surface water, the Director or their designee may email RWQCB Staff, Jon Rokke: Jon.Rokke@waterboards.ca.gov to notify him of the SSO within 3 business days after becoming aware of the SSO.

Category 3 SSOs

If a SSO occurs due to a problem in the District's sanitary sewer collection system and does not reach a drainage channel, surface water, the District storm drain system, or is fully captured from the storm drain system and returned to the sewer system or disposed of properly and is less than 1000 gallons in volume, the Utilities

Supervisor or their designee may email RWQCB Staff, Jon Rokke: Jon.Rokke@waterboards.ca.gov to notify him of the SSO within 30 calendar days after the end of the calendar month in which the SSO occurred.

PLSDs

The District may voluntarily notify regulatory agencies, such as the RWQCB, of a private lateral sewage discharge (PLSD). SWRCB encourages notifying Cal OES of a PLSD if the PLSD is greater than or equal to 1,000 gallons with the potential to reach surface water.

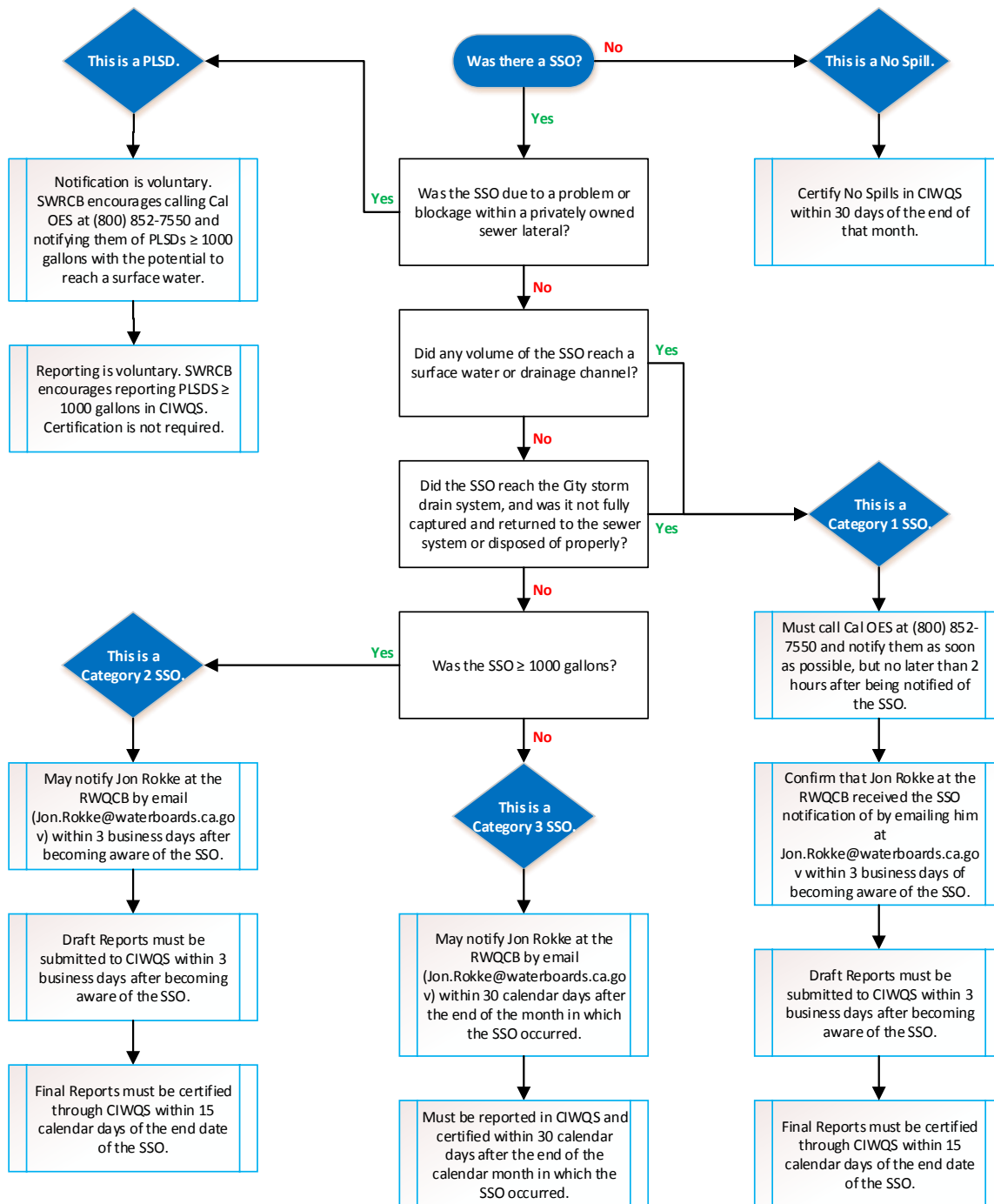
SWRCB also encourages notifying the appropriate regulatory agencies (see list of potential agencies in Element 2: Organization) or notifying the responsible party that notification and reporting should be completed as required by Health and Safety Code Section 5410 et. seq. and Water Code Section 13271 if the PLSD is greater than or equal to 1,000 gallons regardless of the SSO destination.

SWRCB also encourages notifying the appropriate regulatory agencies or notifying the responsible party that notification and reporting should be completed as required by Health and Safety Code Section 5410 et. seq. and Water Code Section 13271 if the PLSD is greater than or equal to 1,000 gallons regardless of the SSO destination.

6. The Director may notify the Vice President, Board of Directors or other District representatives as necessary.
7. The Director or first responder will notify all appropriate regulatory agencies as required by the category of spill.
8. The agencies to be contacted in order include the following:
 - a. Cal OES (800) 852-7550 no later than 2 hours after being notified of the SSO
10. Upon mitigation, containment and clean-up of the spill the Director or first responder will use the *SSO Response Checklist* to complete the spill report to the State Water Board CIWQS database as required.

See **Figure 6-2** for notification and reporting.

Figure 6-2: SSO Notification and Reporting Overview



SSO Notification Procedure

SSO notification procedures vary based on whether the SSO is classified as a Category 1, Category 2, Category 3, or PLSD. After notifying the RWQCB of any SSO, Terry Reece should email RWQCB Staff, Jon Rokke, at Jon.Rokke@waterboards.ca.gov to confirm that the report was submitted and received.

Category 1 SSOs

For any discharges of sewage **greater than or equal to 1,000 gallons** that result in a **discharge to** a drainage channel or **a surface water** or to the District storm drain system and is not fully captured and returned to the sewer system or disposed of properly, the District shall, as soon as possible, but no later than **two (2) hours** after becoming aware of the discharge, notify the California Governor's Office of Emergency Services (Cal OES) at 1-800-852-7550.

Category 2 SSOs

For a SSO **1,000 gallons or greater** in volume that **does not discharge to** a drainage channel or **surface water**, Terry Reece may email RWQCB Staff, Jon Rokke, at Jon.Rokke@waterboards.ca.gov to notify him of the SSO **within 3 business days** after becoming aware of the SSO.

Category 3 SSOs

If a SSO occurs due to a problem in the District's sanitary sewer collection system and does not reach a drainage channel, surface water, the District storm drain system, or is fully captured from the District's storm drain system and returned to the sewer system or disposed of properly and is **less than 1000 gallons** in volume, Terry Reece may email RWQCB Staff, Jon Rokke, at Jon.Rokke@waterboards.ca.gov to notify him of the SSO **within 30 calendar days** after the end of the calendar month in which the SSO occurred.

PLSDs

The District may voluntarily notify regulatory agencies, such as the RWQCB, of a private lateral sewage discharge (PLSD). SWRCB encourages notifying Cal OES of a PLSD if the PLSD is greater than or equal to 1,000 gallons with the potential to reach a surface water.

SWRCB also encourages notifying the appropriate regulatory agencies or notifying the responsible party that notification and reporting should be completed as required by Health and Safety Code Section 5410 et. seq. and Water Code Section 13271 if the PLSD is greater than or equal to 1,000 gallons regardless of the SSO destination.

SSO Reporting Procedure

SSO reporting procedures vary based on whether the SSO is classified as a Category 1, Category 2, Category 3, or PLSD.

Category 1 SSOs

Draft reports for Category 1 SSOs shall be submitted in CIWQS within **three (3) business days** of the District becoming aware of the SSO. Final reports for Category 1 SSOs shall be certified in CIWQS **within fifteen (15) calendar days** of the end date of the SSO. If CIWQS is not available for the submission of the Draft or Final SSO report, the required information must be faxed to RWQCB at (805) 543-0397.

For all Category 1 SSOs greater than or equal to 50,000 gallons, the District must also submit a Technical Report **within forty-five (45) calendar days** of the end date of the SSO.

The required information is outlined below and includes descriptions, diagrams, other documents and information, which outline the causes and circumstances of the SSO, the District's response to the SSO, and the water quality monitoring performed to evaluation the impact of the SSO.

- Causes and Circumstances of the SSO:
 1. Complete and detailed explanation of how and when the SSO was discovered.
 2. Diagram showing the SSO failure point, appearance point(s), and final destination(s).
 3. Detailed description of the methodology employed, and available data used to calculate the volume of the SSO and, if applicable, the SSO volume recovered.
 4. Detailed description of the cause(s) of the SSO.
 5. Copies of original field crew records used to document the SSO.
 6. Historical maintenance records for the failure location.
- Enrollee's Response to SSO:
 1. Chronological narrative description of all actions taken by enrollee to terminate the spill.
 2. Explanation of how the SSMP Overflow Emergency Response Plan was implemented to respond to and mitigate the SSO.
 3. Final corrective action(s) completed and/or planned to be completed, including a schedule for actions not yet completed.
- Water Quality Monitoring:
 1. Description of all water quality sampling activities conducted including analytical results and evaluation of the results.
 2. Detailed location map illustrating all water quality sampling points.

Category 2 SSOs

Draft reports for Category 2 SSOs shall be submitted in CIWQS **within three (3) business days** of the District becoming aware of the SSO. Final reports for Category 2 SSOs shall be certified in CIWQS **within fifteen (15) calendar days** of the end date of the SSO. If CIWQS is not available for the submission of the Draft or Final SSO report, the required information must be faxed to RWQCB at (805) 543-0397.

Category 3 SSOs

Report and certify all Category 3 SSOs in CIWQS **within thirty (30) calendar 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.

PLSDs

PLSDs may be voluntarily reported in CIWQS. SWRCB encourages reporting a PLSD in CIWQS or notifying the responsible party that notification and reporting should be completed as required by Health and Safety Code Section 5410 et. seq. and Water Code Section 13271 if the PLSD is greater than or equal to 1,000 gallons regardless of the SSO destination.

If a PLSD is reported in CIWQS, the District must identify the SSO as occurring and caused by a private lateral, and a responsible party, who is not the District, should be identified, if known. Certification of PLSD reports is not required.

No Spill Certification

If there are no SSOs during a calendar month, the District must certify a “No Spill” certification in CIWQS **within thirty (30) calendar days** after the end the calendar month in which no SSO occurred. If CIWQS is not available, the required information must be faxed to RWQCB at (805) 543-0397.

If there are no SSOs during a calendar month, but the District reported a PLSD, the District shall certify a “No Spill” certification statement for that month.

Amended SSO Reports

If the District wishes to update or add additional information to a certified SSO Report, the District must complete this update or addition by amending the SSO report or adding an attachment to the SSO report in CIWQS **within 120 calendar days** after the SSO end date.

If a SSO report needs to be amended after this 120 calendar day deadline, the District may contact the SSO Program Manager, Victor Lopez, at Victor.Lopez@waterboards.ca.gov and request to amend the SSO report. The District is required to submit justification for why the additional information was not available prior to the end of the 120-calendar day deadline with this request.

6.6 OERP Training [WDR D.13(vi)(d)]

The District has developed formal Overflow Emergency Response Procedures (EOPs) and an associated training program. The District will also require contractor personnel to train on and follow this SSMP Element and its Appendices through their contracts if the work they are conducting is related to SSO Emergency Response. The District will

include training records in the Appendix of this SSMP Element upon the implementation and training on these EOPs. EOPs consist of the following:

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

These EOPs and associated training records are located in **Appendix D**.

Element 7 - Fats, Oils and Grease (FOG) Control Program

This element will describe the Fats, Oils and Grease (FOG) control measures, including identification of problem areas, focused cleaning, and source control.

Element 7: FOG Appendix

Supporting information for Element 6 is included in **Appendix E** which contains the following documents:

- FOG Outreach Materials

7.1 Regulatory Requirements

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

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

- (a). An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;
- (b). A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;
- (c). The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;
- (d). Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;
- (e). Authority to inspect grease producing facilities, enforcement authorities, and whether the Agency has sufficient staff to inspect and enforce the FOG ordinance;
- (f). An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and
- (g). Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (f) above.

7.2 FOG Control Program Discussion

The District has determined that a FOG Control Program is not required based on the history of District SSOs, none resulting from FOG related conditions.

The District has not experienced any SSOs that were FOG related. The District has a single FSE on Campus (cafeteria), and it is equipped with a grease trap. The grease trap is cleaned by a contracted service (name, phone) on a monthly basis. The District has no other FSEs or sources for introduction of FOG to the sewer system, and proactively addresses the single FSE on the District's campus.

The District developed outreach materials to assist in informing Campus food service employees on proper FOG management. These documents can be found in **Appendix E**.

Element 8 –System Evaluation and Capacity Assurance Plan

This element requires evaluation of the collection system to determine the ability to provide sanitary sewer capacity for dry weather peak flow conditions, as well as the appropriate design for storm or wet weather events.

Element 8 – System Evaluation and Capacity Assurance Plan Appendix

Supporting information for Element 8 is included in **Appendix F** which contains the following documents:

- Placeholder: Results of Sewer System Inspection and Assessment

8.1 Regulatory Requirements

The requirements for the System Evaluation and Capacity Assurance element of the SSMP are summarized below.

1. **Evaluation:** Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge deficiency. The evaluation should provide estimates of peak flows associated with conditions similar to those causing overflow events, estimates of the treatment plant's key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;
2. **Design Criteria:** Where design criteria do not exist or are deficient, undertake the evaluation identified above to establish appropriate design criteria; and
3. **Capacity Enhancement Measures:** The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP may include an implementation schedule and may identify sources of funding.
4. **Schedule:** The District will develop a schedule of completion dates for all portions of the capital improvement program developed in (1)-(3) above. This schedule may be reviewed and updated consistent with the SSMP requirements as described by the SWRCB GWDR.

8.2 System Evaluation and Capacity Assurance Plan

Current system capacity is adequate for the present dry weather and wet weather peak sewer flows. As stated earlier, the District campus is already at build-out, and the sewer collection system was designed years ago for such capacity and wastewater flows. The only improvements anticipated in future years are those required for existing sewer collection system maintenance.

As noted in other Sections of this SSMP, the District's Campus has reached build-out, and the existing sewer infrastructure was hydraulically designed and sized to accommodate this build-out wastewater demand. As such, further hydraulic capacity

studies have not been warranted. In addition, in 2011, the District replaced over 50% of its main trunk sewers on Campus with SDR 35 PVC sewer pipe. The new sewer pipe upgrades were designed and constructed to County of San Luis Obispo standards, and video inspected, mandrel tested, and low-pressure air tested for tightness.

The District plans to conduct an inspection of the remaining trunk sewer system on Campus, to ascertain physical condition of the remaining trunk sewer system (by CCTV) and physical inspection of all sewer manholes. The majority of these investigations have been completed resulting in recommendations for some minor rehabilitation and CIP, none of which identified capacity deficient lines. A final report and recommendations for any identified sewer rehabilitation/replacements and capacity related concerns will be developed in 2020. Based on District staff's routine inspection of the system, there are no dry or wet weather capacity concerns at this time.

8.3 Schedule

After completion of this inspection work, future inspections of manholes and sewer lines will be per the schedule stated in Element 4 of this SSMP, and any future identified CIPs will be scheduled accordingly. This schedule will be reviewed and updated when applicable. Results of these inspections, associated analysis and projects if warranted will be placed in **Appendix F** when complete. Staff will assess the need for funding efforts based on the results of these investigations and final analysis.

Element 9 - Monitoring, Measurement and Program Modifications

This element discusses monitoring, measurement and program modifications employed by the District. The District may prepare and implement program modifications as appropriate to address deficiencies, or as a preventative measure for improving the overall collection system.

Element 9 – Monitoring, Measurement & Program Modification Appendix

Supporting information for Element 9 is included in **Appendix G** which contains the following documents:

- Staff Reports: SSMP Performance
- Campus Sewer Related Flyer(s)

9.1 Regulatory Requirements

The District will develop a monitoring, measurement and modifications program to maintain the relevant information that can be used to establish and prioritize appropriate policies, procedures, processes and programs funding within the SSMP. These measurements shall include the following information:

- How to maintain relevant information that can be used to establish and prioritize appropriate processes within the SSMP;
- When to monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;
- Assess the success of the preventative maintenance program;
- Update program elements, as appropriate, based on monitoring or performance evaluations; and
- Identify and illustrate SSO trends, including: frequency, location, and volume.

Establishing and Prioritizing SSMP Activities [WDR D.13(ix)(a)]

Table 9-1 outlines the relevant information maintained by the District to establish and prioritize appropriate SSMP activities:

Table 9-1: SSMP Implementation Management

SSMP Element	SSMP Information
1. Goal	This SSMP Element contains the District's goals for the operation, maintenance, and management of the sanitary sewer collection system, which provide focus to help reduce SSOs and mitigate SSOs that do occur.
2. Organization	A table containing names, job titles, roles, responsibilities, and contact information is contained in this SSMP Element, which allows the public, staff, and regulators to directly contact the person most knowledgeable for each aspect of the

SSMP Element	SSMP Information
	SSMP Program.
3. Legal Authority	N/A
4. Operation and Maintenance Program	Appendices to this SSMP Element document the sanitary sewer system operation and maintenance activities, which are utilized to develop the District's Rehabilitation and Replacement Plan. Appendices include maps, equipment and replacement part inventories.
5. Design and Performance Provisions	Appendices to this SSMP Element include Design Standards and Specifications.
6. Overflow Emergency Response Plan	Appendices to this SSMP Element include notification, response, and emergency operations procedures. OERP Training documentation is also kept on file at the District Facilities office.
7. FOG Control Program	N/A
8. System Evaluation and Capacity Assurance Plan	There are no existing capacity related concerns that require capital improvements. The District will review annual SSO data and O&M data for any wet or dry weather capacity related issues.
9. Monitoring, Measurement, and Program Modifications	This SSMP Element will be updated annually with the number of SSOs that occur and their causes in a calendar year. This is the most important trend to document and a primary reason for the SSMP.
10. SSMP Program Audits	SSMP Audit Reports will be appended to this SSMP Element when they are generated.
11. Communication Program	This SSMP Element discusses a plan and schedule to develop public outreach articles, flyers and include pertinent information on the District website.

SSMP Implementation Monitoring [WDR D.13(ix)(b)]

Element 1 – Goals

The Director of Maintenance, Operations and Grounds (Director) is responsible for monitoring the implementation of this SSMP Element. The District's sanitary sewer system goals will be evaluated and progress toward meeting these goals will be measured on an annual basis by the Director, who will submit a staff report to the District Board of Trustees in February of each year, which communicates the District's progress toward achieving these goals and implementing the SSMP. Copies of these reports will be included in **Appendix G**.

Element 2 – Organization

The Director is responsible for monitoring the implementation of this SSMP Element. The organization charts will be reviewed and revised annually in February of each year. The SSO response and notification process will be reviewed and revised to increase its effectiveness annually in February of each year.

Element 3 – Legal Authority

N/A

Element 4 – Operation and Maintenance Program

The Director is responsible for monitoring the implementation of this SSMP Element, which is to be reviewed and revised annually.

The District will update its mapping system with any updates or changes to the system. As-built plans and construction drawings are maintained as the collection system is improved. Data will also be routinely integrated back into the collection system GIS database as this system is upgraded.

The District's Operation and Maintenance Program includes pipeline cleaning and maintenance, manhole inspections, and CCTV inspection that are conducted as needed. Annual reporting on these activities will be used as a tool to assess the O&M Program.

Element 5 – Design and Performance Provisions

The Director is responsible for monitoring the implementation of this SSMP Element. If current plans, specifications and testing procedures require updating, the Director will advise the Board of Trustees for the development and approval of new standards.

Element 6 – Overflow Emergency Response Plan

The Director is responsible for monitoring the implementation of this SSMP Element. The District's OERP, which will include emergency response procedures, will be reviewed and revised on an annual basis by the Director.

If a SSO occurs, the Director will evaluate the effectiveness of the OERP to determine whether any modifications need to be made to the procedures and protocol contained in the OERP and make the revisions needed to improve the effectiveness of the District's SSO response and notification processes.

Element 7 – FOG Control Program

The Director is responsible for monitoring the implementation of this SSMP Element and its effectiveness at reducing SSOs on an annual basis.

FOG Program development and implementation necessitated by an increase in SSOs caused by FOG will be developed by the Director if necessary.

Element 8 – System Evaluation and Capacity Assurance Plan

The Director is responsible for the implementation of this SSMP Element, which is to be reviewed and revised annually with the identification of any capacity related CIP.

Element 9 – Monitoring, Measurement, and Program Modifications

The Director is responsible for the implementation of this SSMP Element, which is to be reviewed and revised annually. The review and revisions are to be documented on the revision record, which is the first page of each element. The metrics contained in this SSMP Element are important tools in the determination of what tasks and projects contained in each element are a priority from fiscal year to fiscal year.

During the cleaning of the collection system, staff observations are noted and kept in the same files as the cleaning records. The records serve as a functional and strategic guide to be used in future annual cleanings of the District's sewer collection system. This makes it possible to compare changes in the condition of the pipelines from year to year. The emergency call outs and SSOs are tracked in a similar manner and frequency, location and volume are compared from year to year.

The District prepares an annual report to establish if deficiencies in the programs or plans included in the SSMP may be detected. If any deficiencies in the SSMP are noted they are brought to the attention of the Board and updates and modifications are made at that time. This is done in addition to the Audits that are required to be performed every two years.

Element 10 – SSMP Program Audits

The Director or their designee is responsible for assuring the SSMP Audit is conducted and complete continuously on a two-year interval prior to the WDR identified due date.

SSMP Audits should be conducted with cooperation of all of the management, administrative, maintenance, and contract positions responsible for implementing specific measures in the SSMP program. When conducting the SSMP Audit, District Staff must evaluate the effectiveness of each element of the District's SSMP. A comprehensive, effective review of the District's SSMP must be documented in a SSMP Audit Report.

Element 11 – Communication Program

The Director is responsible for the implementation of this SSMP Element, which is to be reviewed and revised annually. Revisions must include examples of public outreach articles, flyers and pertinent District website addresses, as well as meeting agendas and minutes from meetings with stakeholders.

The Director is responsible for communication with the County Office of Education and County General Services which is satellite to the District's sewer collection and conveyance system. These communications should be designed to be a venue for

coordination regarding collections system issues and SSMP related goals and objectives.

Preventative Maintenance Program Assessment [WDR D.13(ix)(b)]

The District's Preventative Maintenance Program includes cleaning, visual manhole inspection, and High Maintenance Area (HMA) identification and maintenance. The District's Preventative Maintenance Program is described in SSMP Element 4 – Operation and Maintenance Program and above in Element 4 – Operation and Maintenance Program.

SSMP Updates [WDR D.13(ix)(d)]

The intention of the District is to use the SSMP for training, planning and regular maintenance of the collection system. As the document is utilized, any deficiencies or discrepancies will be corrected. Program elements will be updated based on performance evaluations, organizational, operational, and maintenance changes, new regulatory requirements, and repairs, replacements, and upgrades made to the collection system.

At a minimum, the District will review and revise the SSMP annually. The Director is responsible for revising and maintaining the SSMP. A revision record will be maintained to track changes.

SSO Trends [WDR D.13(ix)(e)]

The trends in the District's SSOs for 2010 through 2017 are illustrated in Table 9-2 in **Appendix G**. The cause categories identified in Table 9-2 are the causes available for use in the SSO Report in California Integrated Water Quality System (CIWQS). City Staff is responsible for determining which cause category is appropriate for each SSO when the SSO is reported in CIWQS. A copy of this SSO Indicator Table will be updated annually.

Element 10 – SSMP Audits

This section discusses and outlines the procedure for conducting audits of the SSMP. Audits will be performed every two years.

Element 10 – Program Audits Appendix

Supporting information for Element 10 is included in **Appendix H** which shall contain the following documents:

- **SSMP Audit Data and Records Request**
- **2017 SSMP Audit**

10.1 Regulatory Requirements

As part of the SSMP, the District shall conduct an internal audit, appropriate to the size of the system and the number of overflows, and submit a report of such audit, evaluating the SSMP and its compliance with the SWRCB GWDR.

At a minimum, these audits will occur every two years. An audit report will be prepared and kept on file with the SSMP. This audit will focus on evaluating the effectiveness of the SSMP, District compliance with the GWDR, and identification of any deficiencies in the SSMP and steps to correct them.

10.2 SSMP Program Audits

The Director or their designee is responsible for assuring the SSMP Audit is conducted and complete prior to the May 2, 2016 deadline and continuously on a two-year interval following this date. Audits should be conducted with cooperation of the Maintenance and Utilities Director and other applicable Staff. When conducting the SSMP Audit, the District must evaluate the effectiveness of each SSMP Element. A comprehensive, effective review of the District's SSMP must be documented in a SSMP Audit Report.

Summary of Procedure:

1. Gather appropriate documents using the SSMP Data & Records Request, which is provided in **Appendix H**.
2. Write Audit Report and attach all documents reviewed and used as evidence of compliance with the WDR. Create a plan and schedule for revisions to the SSMP based on changes in operational strategies or deficiencies found in the SSMP.
3. Evaluate the effectiveness of the District's SSMP and compliance with each WDR requirement using the ranking methodology outlined in Table 10-1.

Table 10-1: SSMP Audit Ranking Criteria

Ranking	Ranking Basis
In Compliance	All requirements specified in the element are met.
Substantial Compliance	The majority of requirements in the element are met.
Partial Compliance	Half of the requirements in the element are met.
Marginal Compliance	Less than half of the requirements in the element are met.
Out of Compliance	None of the requirements in the element are met.

The SSMP Audit Report must be signed and certified by a person designated as described in WDR Section J.1.(i). WDR Section J states:

All applications, reports, or information shall be signed and certified as follows:

(iii) All reports required by this Order and other information required by the State or Regional Water Board shall be signed and certified by a person designated, for a municipality, state, federal or other public agency, as either a principal executive officer or ranking elected official, or by a duly authorized representative of that person, as described in paragraph (ii) of this provision. (For purposes of electronic reporting, an electronic signature and accompanying certification, which is in compliance with the Online SSO database procedures, meet this certification requirement.)

(iv) An individual is a duly authorized representative only if:

- (a) The authorization is made in writing by a person described in paragraph (i) of this provision; and
- (b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.

The SSMP Audit Report must be hand signed and certified using the language provided below:

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

are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

Subsequent SSMP Audits must be conducted continuously on a two-year interval following the schedule outlined in Table 10-2 below.

Table 10-2: SSMP Audit Schedule

SSMP Audit Due Date	Date District SSMP Audit Completed
1. <u>May 2, 2014</u>	July 14, 2015
2. May 2, 2017*	April 14, 2017
3. May 2, 2019*	
4. May 2, 2021*	
5. May 2, 2023*	

** Due to the fact that the District was late on the first SSMP Audit identified above, the CCC Director has amended the schedule to conduct Audits every 2 years based on the most recent 2015 Audit Report. The schedule has been amended to replace the schedule outlined in the WDRs which would require 2016, 2018, 2020 Audits.*

To assist in the audit process, the District should consider quarterly or semiannual reviews and revisions to specific SSMP Elements and associated supporting documents. These reviews and revisions will help ensure current operational practices and procedures are reflected in the SSMP and documentation of these activities is readily available during an audit by the Regional Water Quality Control Board, State Water Resources Control Board, or United States Environmental Protection Agency.

SSMP Audit Reports must be kept on file with the SSMP and available to regulators and the public upon request. The last District SSMP Audit Report, which is dated April 14, 2017, is included in **Appendix H**.

Element 11 –Communication Program

This will discuss how the District plans to communicate this plan with the public and/or applicable parties within the community.

Element 11 - Communications Appendix

Supporting information for Element 11 is included in **Appendix I** which shall contain the following documents:

- Flyers - Public Outreach
- Satellite Outreach
- Staff Reports

11.1 Regulatory Requirements

The District will communicate on a regular basis with the public, students, faculty on the development, implementation, and performance of its SSMP. The communication system will provide the public the opportunity to provide input to the District's program while being developed and prior to implementation.

11.2 District Communication Program

The communication program employed by the District will provide continual opportunities for interested parties to provide the District with input as the SSMP and associated programs are being developed. These opportunities will take place prior to and during SSMP implementation. Additional information will be generated on an ongoing basis as necessary to educate students and staff on proper use of the sewer system.

Table 11-1: Communication Program Overview

Activity	Frequency	Stakeholders	Year Implemented	
			2017	2018
District Website	Year-round	All	X	
Public Flyers	Annually/Ongoing	All	X	
Board of Trustee Meetings	As Needed	All	X	
Satellite Outreach	Annual	Satellite Sewer Systems	X	

District Website

The Director will post the SSMP, SSMP updates/revisions, and audits on the District web site. The public may comment on any aspect of the SSMP. The District's website is: <http://www.cuesta.edu/>.

Public Flyers

The District distributes public flyers educating the student and faculty on the hazards of flushing “non-flushable” items into the Districts sewer system.

Board of Trustee Meetings

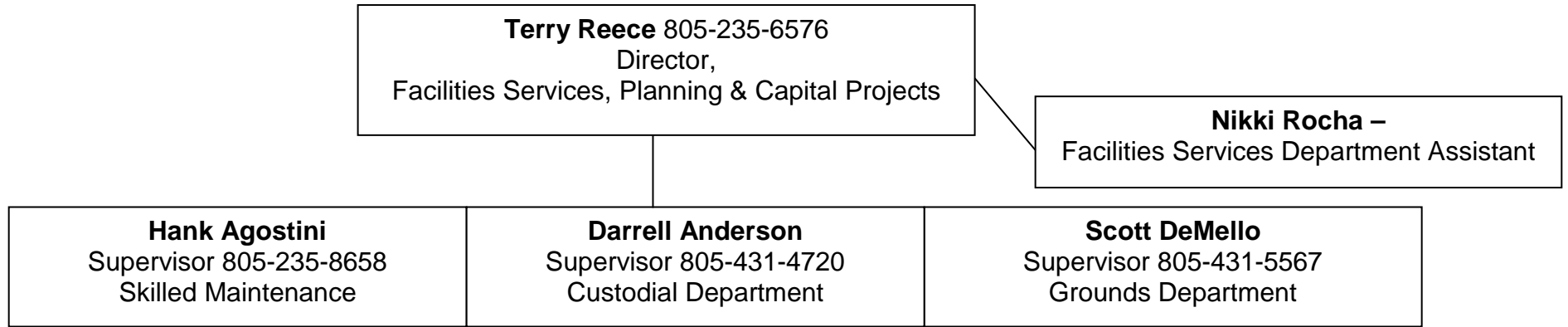
Monthly Board of Trustees Meetings are held on the first Wednesday of each month. SSMP updates and audits are presented to the public during a council meeting to receive input on the document from the public.

Satellite Sewer System Outreach

The Director sends out an annual outreach letter to systems which are satellite to the District sewer system. This letter informs these private systems of operation and maintenance options and procedures to ensure these systems are in adequate working order based on industry standards.

Appendix A – Facilities Organization Chart

SAN LUIS OBISPO COUNTY COMMUNITY COLLEGE DISTRICT
FACILITIES SERVICES ORGANIZATIONAL CHART
805-546-3283



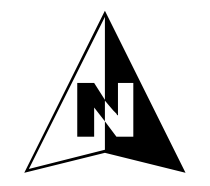
Appendix B – Operations and Maintenance

- 1) Sewer Collection System and Storm Water System Map
- 2) Map Revision History Log
- 3) Sewer Line Cleaning and Routine Manhole Inspection Log
- 4) Manhole Inspection Report
- 5) Critical Parts and Equipment List
- 6) 2017 CCTV Data
- 7) Link to Annual Budget: https://www.cuesta.edu/about/documents/fiscal-docs/Adopted_Budget_2017-2018.pdf



- Legend**
- <all other values>
 - ELECTRIC FACILITIES
 - GAS FACILITIES
 - STORMWATER FACILITIES
 - SEWER FACILITIES
 - WATER FACILITIES

CIVIL ENGINEERING
 CONSTRUCTION MANAGEMENT
 LANDSCAPE ARCHITECTURE
 MECHANICAL ENGINEERING
 PLANNING & ADMINISTRATION
 SURVEYING SOLUTIONS
 WATER RESOURCES
 WALLACE SIMMONS INTERNATIONAL
 610 CLAYTON COURT
 SAN LUIS OBISPO, CA 93401
 T 805 544-4511 F 805 544-4524
 www.wallacegroup.us



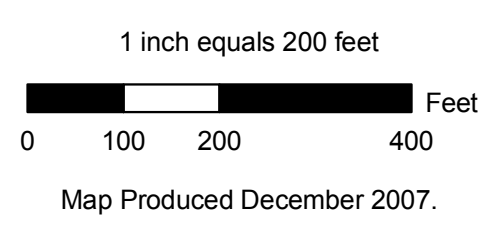
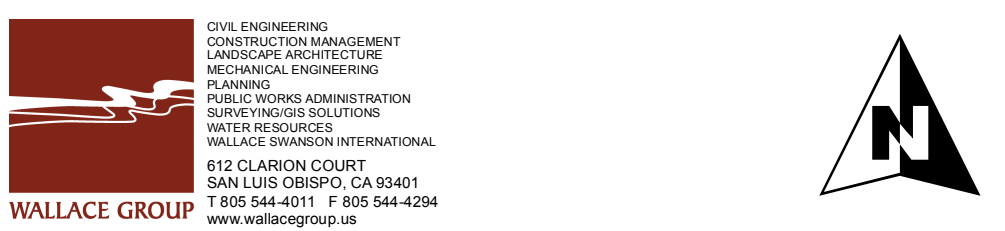
**CUESTA COLLEGE
UTILITY BASEMAP**

1 inch equals 200 feet
 0 100 200 400 Feet
 Map Produced December 2007.



- Legend**
- <all other values>
 - ELECTRIC FACILITIES
 - GAS FACILITIES
 - STORMWATER FACILITIES
 - SEWER FACILITIES
 - WATER FACILITIES

**CUESTA COLLEGE
UTILITY BASEMAP**





Cuesta College Map Revision History

REV #	DATE	DESCRIPTION OF CHANGE	CHANGE BY	APPROVAL	COMMENTS



Cuesta College Map Revision History

REV #	DATE	DESCRIPTION OF CHANGE	CHANGE BY	APPROVAL	COMMENTS



Cuesta Trunk Line Manhole Observation and Inspection Report

MH Initial Inspection

Circle Description of Each Asset

A. Location

1. Road
2. Gutter
3. Alley
4. Easement
5. Other _____

B. Cover

1. Serviceable
2. Damaged
3. Displaced
4. Missing
5. Loose
6. Sealed

C. Ring/Frame

1. Serviceable
2. Loose
3. Displaced
4. Missing Grout
5. Needs Raising
6. Needs Lowering

D. Manhole Material

1. Cast in Place
2. Pre-Cast

E. Manhole Cover

1. 24-inch
2. 30-inch

F. Manhole Size

1. 4-Foot
2. 5-Foot

Structural Inspection

Circle Description of Each Asset

A. Rungs

1. Serviceable
2. Unsafe
3. Missing
4. Corroded

B. Cone

1. Serviceable
2. Broken
3. Corroded
4. Misaligned
5. Leaking/Bad Joints

C. Riser

1. Serviceable
2. Broken
3. Corroded
4. Misaligned
5. Leaking/Bad Joints

D. Shelf

1. Serviceable
2. Broken
3. Dirty
4. Misaligned
5. Bad Base Joints

E. Channel

1. Serviceable
2. Obstructed
3. Corroded
4. Bad Pipe Joint
5. Silt/Dirt
6. Poor Condition

Hydraulic Inspection

Circle Description of Each Asset

A. Inflow Indications

1. Stains on Rungs
2. Stains on Bench

B. Surcharge Indications

1. Debris on Shelf
2. Debris on Rungs

C. Clarity of Flow

1. Turbid/Cloudy
2. Clear

D. Flow Type

1. Steady
2. Pulsing
3. Turbulent
4. Surcharging
5. Sluggish

E. Flow Depth Compared to Adjacent MHs

1. Same
2. Lower
3. Higher

F. Approximate Flow Depth

1. _____ inches
2. Time _____ AM/PM



Cuesta Trunk Line Manhole Observation and Inspection Report
Observation Summary (Inspector):

Recommendations (Inspector):

Inspector's Signature: _____

Date: _____

Recommendations (Engineering Staff):



Critical Parts and Equipment List

Parts and Equipment:

Rigid - K1500 Cable System

Portable Sewer Line Jetter

Sand Bags for containment of SSO – Available through our grounds department. These are kept in stock year round.

Wattle for containment of SSO - Available through our grounds department. These are kept in stock year round.

In the event of a serious incident requiring an excavation and/or Sewer Bypass the District utilizes:

Rick Elisarraras Excavation

PO Box 122

Atascadero, Ca 93423

805-466-0659

CUESTA COLLEGE: 2017 CCTV RESULTS

Report	Date	Location	Manhole Numbers	Pipe Length	Summary of CCTV Findings	Recommendation
Session 1	7/24/2017 9:23	BLDG 8000	C/O 1 To 1	0	N/A 4" line	Normal Maintenance
Session 2	7/28/2017 8:30	BLDG 8000	1 To 2	0	N/A	Normal Maintenance
Session 3	7/28/2017 8:44	BLDG 6800	2 To 3	0	No Video	Normal Maintenance
Session 4	7/28/2017 8:50	BLDG 6800	3 To 4	68.1	Significant Roots at 67 ft: Unable to complete video past roots.	Hot Spot
Session 5	7/28/2017 9:19	BLDG 6800	3 To 4	0	Concrete in line ("0ft")	Normal Maintenance
Session 6	7/28/2017 9:22	BLDG 6800	5 To 4	0	Significant Roots @ 0 ft could not proceed.	Hot Spot / Foam
Session 7	7/28/2017 9:27	BLDG 6300	4 To 6	151.7	Broken pipe w/ root intrusion @ 143.6 ft	Monitor for potential point repair in future. <i>Missing Report for C/O3 to MH6?</i>
Session 8	8/1/2017 9:37	BLDG 6800	3 To 4	262.5	Heavy Roots at 67.9 ft. Concrete in line 260.8 ft (Is this actually MH #4 to #3 ?) <i>See session 5 comments.</i>	Hot Spot See Session 5
Session 9	8/1/2017 10:05	BLDG 6100	5 To 4	197.2	Cracks w/ minor root intrusion @ 96.4 ft. on Lt side, moderate root intrusion on Rt side @ 96.4 ft, Concrete in line @ 99.4 ft - unable to pass (however report continues ?), 190.9 cracks w/ minor root intrusion.	See Session 6 Hot Spot
Session 10	8/1/2017 10:25	BLDG 3100	6 To 7	105.7	Tap w/ Root Intrusion (moderate) @ 58.4 ft.	Hot Spot / Foam
Session 11	8/1/2017 10:32	BLDG 3100	7 To 8	101.7	N/A	Normal Maintenance
Session 12	8/1/2017 10:41	BLDG 3100	8 To 9	0	Unable to inspect (due to turn in pipe) @ 0 ft.	Normal Maintenance
Session 13	8/2/2017 9:11	BLDG 3100	8 To 9	154.4	N/A	Normal Maintenance
Session 14	8/2/2017 9:20	BLDG 3100	9 To 9A	206.9	N/A	Normal Maintenance
Session 15	8/2/2017 9:34	BLDG 1300	9A To 10	64.9	N/A	Normal Maintenance
Session 16	8/2/2017 9:42	BLDG 1300	10 To 11	128.5	Transition to PVC @ 6.4 ft w/ light root intrusion. "Roots at most joints @ 9.7 ft. Cracks @ 47.7 ft. Tap w/ minor roots @ 66.8 ft. Roots in MH @ 128.5 ft (MH # 11).	Hot Spot / Foam
Session 17	8/2/2017 10:00	PARKING LOT	11 To 12	364.7	Cracks w/ roots @ 261.4 ft.	Potential Repair / Flat poor draining line (high water level) influencing CCTV inspection - could not completely assess.
Session 18	8/2/2017 10:22	PARKING LOT	12 To 13	369.7	Light Roots in joints @ 291 ft and 362 ft. Heavy roots entering MH @ 367.4 ft.	Foam treatment for MH and line.
Session 19	8/9/2017 8:45	BASEBALL FEILD	19 To 18	191.9	Moderate dirt/sand in pipe @ 6 ft, minor cracks in joint @ 17.9 ft, light roots and debris @ 102.9 ft, light roots @ 121 ft, moderate roots @ 188.4 ft, unpassable due to roots @ 191.9 ft.	Hot Spot / Foam / Consider Dish Install

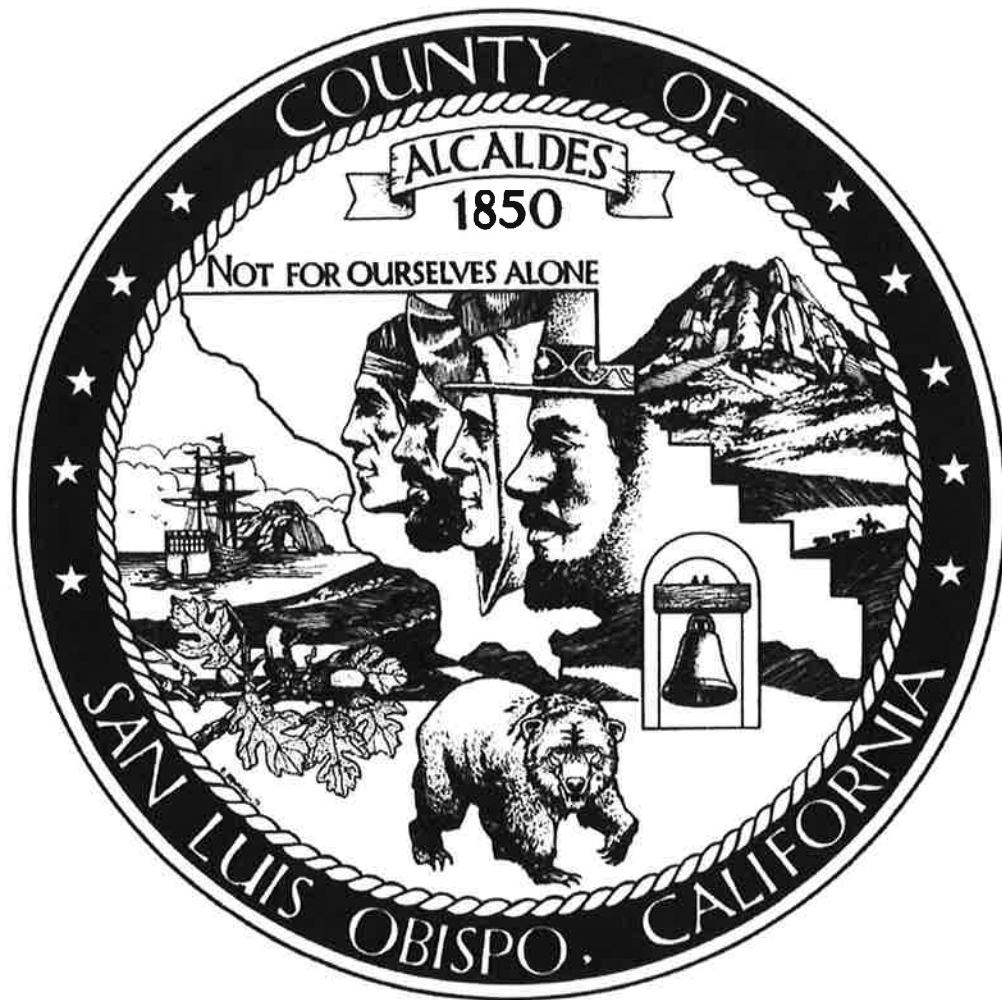
Session 20	8/9/2017 9:20	BASEBALL PARKING LOT	18 To 17	30.6	Light roots in joint w/ heavy debris @ 24.1 ft, Unable to pass due to heavy debris (pipe ~1/3 full).	Hot Spot / Consider Dish Install
Session 21	8/9/2017 9:27	BASEBALL PARKING LOT	16 To 15	65.9	Tap (capped) w/ light roots. Light/moderate roots in joints @ 20.1 ft, 25.6 ft, 47.8 ft, 53.8 ft, 62.8 ft. Heavy roots @ 65.9 ft (unable to pass).	Hot Spot / Foam
Session 22	8/9/2017 9:37	BASEBALL PARKING LOT	16 To 15	118.2	Unable to pass due to buildup of rags @ 118.2 ft.	Outreach / Hot Spot
Session 23	8/9/2017 10:30	BLDG 1400	15 To 14	304.3	Light roots in joint @ 6.6 ft, moderate cracks in pipe @ 32.7 ft,	Foam / Monitor cracks for future repair.
Session 24	8/9/2017 10:56	LOT 5	14 To 13	158.3	Moderate Roots in joint @ 51.6 ft, 79.7 ft, 88 ft, 90 ft, 98.6 ft (light), 117ft, 120 ft, unable to pass due to rock in pipe @ 158.3 ft.	Hot Spot / Foam
Session 25	8/9/2017 11:16	LOT 5	14 To 13	76.6	Moderate roots @ 12.4ft, 18.7 ft, 22.2ft, 25.2 ft, 58.4 ft, Heavy roots @ 76.6 unable to pass.	See Session 24 Hot Spot
Session 26	8/10/2017 11:44	NEW BLDG	20 To 21A	309.9	Moderate Roots in Tap @ 253.6 ft,	Foam
Session 27	8/10/2017 12:19	NEW BLDG	21A To 22	6	Unable to pass due to turn @ 6 ft.	Normal Maintenance
Session 28	8/11/2017 9:36	LOT 6	18 To 17	343.9	Tap w/ heavy roots @ 68.9 ft, light roots in joints @ 203.1 ft, light roots in tap @ 223.8ft, moderate roots in tap @ 300.1 and 208.5 ft. Severe roots in tap @ 311.5 ft. Light roots in joint @ 338.9 ft, Heavy roots (unpassable) @ 343.9ft.	Hot Spot See Session 20 / Foam
Session 29	8/14/2017 8:30	LOT 6	16 To 15	252.6	Light roots in joint @ 20.6 ft, minor cracks in line @ 24.8 ft, roots in spiral crack @ 48.4 ft, heavy roots @ 68 ft.	Hot Spot / Foam
Session 30	8/14/2017 8:56	LOT 5	14 To 13	336.9	Several moderate cracks @ 0 ft., moderate cracks @ 9.3 ft, 30.4 ft, 32.9 ft, 39.6 ft, 52ft, light roots in joint @75.8 ft, 87.9 ft, 172.8 ft, moderate roots in tap @ 176.9 ft, light roots in joint @ 181.6 ft, 257.5 ft, 266.6 ft. Light roots in tap @ 289.4 ft, moderate cracks @ joint @ 290.7 ft.	Hot Spot / Foam / Monitor for future repairs
Session 31	8/14/2017 9:37	BLDG 2500	24 To 25	107.8	Roots in MH barrel (MH 26)	Foam MH Roots
Session 32	8/14/2017 9:45	BLDG 2500	25 To 26	46.9	N/A	Normal Maintenance
Session 33	8/14/2017 9:50	BLDG 2500	26 To 13	247.2	N/A	Normal Maintenance
Session 34	8/14/2017 10:23	BLDG 4200	C/O 5 To 20	162.4	162.4 ft unable to pass due to debris in line.	Hot Spot - Outreach
Session 35	8/14/2017 10:47	BLDG 8000	1 To 2	0	"Could not launch camera".	Normal Maintenance
Session 36	8/14/2017 10:54	BLDG 8000	2 To 3	44.1	Moderate roots in joint and debris @ 8.6 ft. Camera under water @ 44.1 ft (sag/belly). Water marks show pipe running full.	Potential Repair

Appendix C – Design and Testing Standards

- 1) SLO County Design Standards: Sewer
- 2) SLO County Testing Standards: Sewer

San Luis Obispo County

Department of Public Works & Transportation



2011 Public Improvement Standards

Available Online at:

<http://www.slocounty.ca.gov/PW/DevServ/PublicImprovementStandards.htm>



San Luis Obispo County
Department of Public Works & Transportation
Paavo Ogren, Director

2011 Public Improvement Standards

Adopted by the Board of Supervisors:

Resolution No. 2011-312
September 20, 2011

Approved:

David J. Flynn, PE
Deputy Director of Public Works



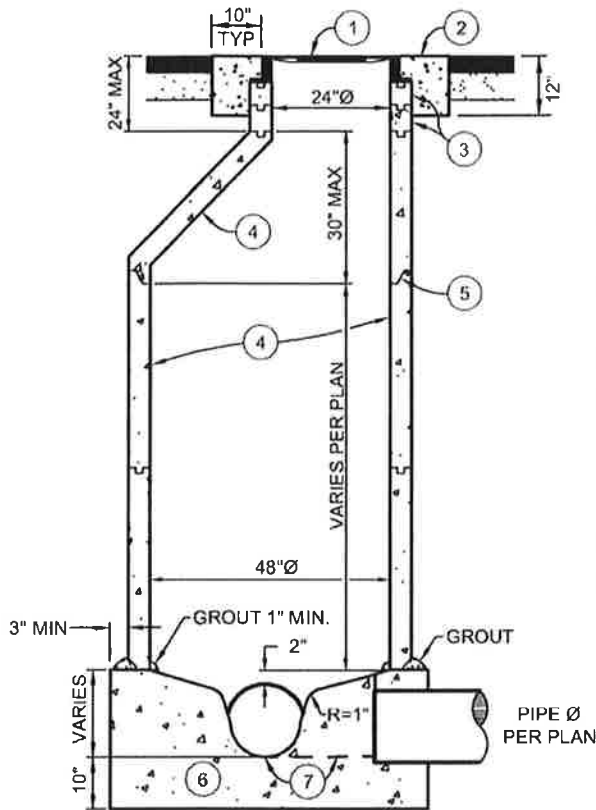
Recommended for Approval:

Glenn D. Marshall, PE
Development Services Engineer

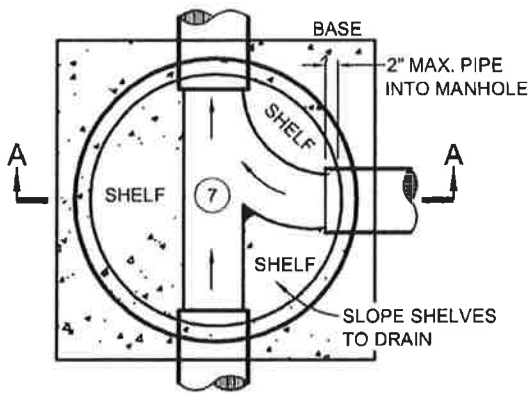


Revisions

Description	Approved	Date	Description	Approved	Date
NOTES 2 & 6	REM	NOV 07			
NOTES 3	GDM	JAN 11			



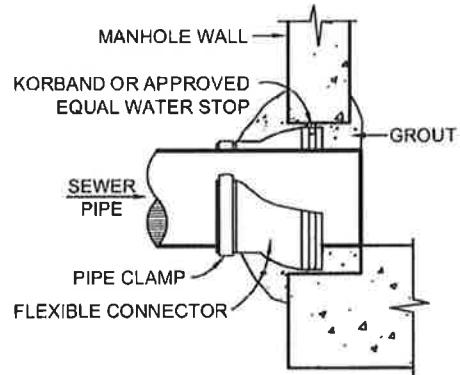
SECTION A-A



PLAN VIEW

NOTES:

1. MANHOLE COVER AND FRAME SHALL HAVE A MINIMUM 24"Ø OPENING AND CONFORM TO HS-20 TRAFFIC LOADING. LID SHALL HAVE A BLIND PICKHOLE, WATERTIGHT GASKET, AND BE LETTERED "SANITARY SEWER".
2. CONCRETE COLLAR SHALL CONFORM TO STATE STANDARD 90-1.01, 565 LBS/CY CEMENTITIOUS MATERIAL [6 SACK], TROWELLED TO STREET GRADE, AND ALLOWED TO CURE 48 HOURS PRIOR TO FULL TRAFFIC USE.
3. PROVIDE 3" OR 6" (9" MAX) ADJUSTING RINGS AS NEEDED, GROUDED ON THE INSIDE. PROVIDE HYDRAULIC CEMENT GROUT BETWEEN MANHOLE FRAME AND TOP RING SHALL BE PER APPENDIX C3.
4. PRECAST SHAFT(S) AND ECCENTRIC CONE SHALL MEET ASTM C-478 61T FOR CLASS 2 REINFORCED CONCRETE PIPE, OR AS APPROVED BY THE DEPARTMENT.
5. JOINTS SHALL BE WATERTIGHT, SET WITH BUTYL RUBBER SEALANT (RUB'R-NEK OR EQUAL).
6. CONCRETE MANHOLE BASE SHALL CONFORM TO STATE STANDARD 90-1.01, 565 LBS/CY CEMENTITIOUS MATERIAL [6 SACK], AND REST UPON UNDISTURBED MATERIAL. BOTTOM SHAFT SHALL BE WET-SET OR SET IN FORMED GROOVE. PRECAST BASES MAY BE USED WITH PRIOR APPROVAL OF THE DEPARTMENT AND SHALL MEET ASTM C-478 61T.
7. CONCRETE CHANNEL SHALL BE STEEL TROWEL FINISH AND SHELF AREAS SHALL BE MONOLITHICALLY PLACED.
8. UNDER NO CIRCUMSTANCES SHALL UTILITY LIDS AND CONCRETE COLLARS BE LOCATED WITHIN CURBS, GUTTERS, SIDEWALKS, DRIVEWAY APRONS, CURB RAMPS, OR CROSS GUTTERS.



TYPICAL CONNECTION DETAIL



LID DETAIL

PINKERTON A-640 WITH SKID RESISTANT SURFACE, BLIND PICKHOLE, WATER TIGHT GASKET, AND HS-20 TRAFFIC LOADING, OR APPROVED EQUAL, MARKED "SANITARY SEWER"



DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION

SEWER MANHOLE

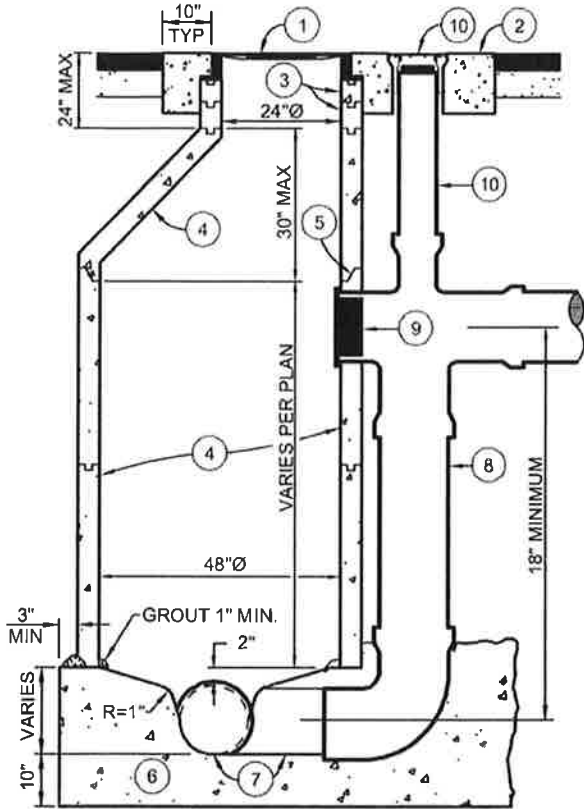
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Sheet No:	

Revisions

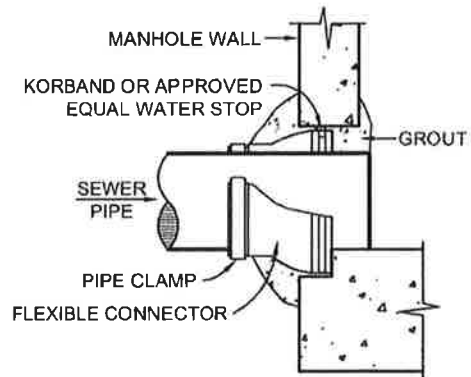
Description	Approved	Date	Description	Approved	Date
NOTES 2 & 6	REM	NOV 07			
NOTES 3	GDM	JAN 11			

NOTES:

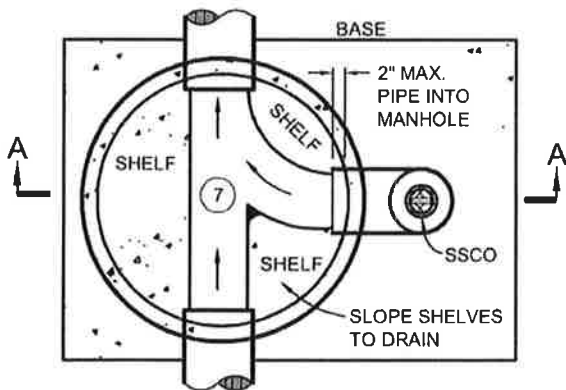
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2. CONCRETE COLLAR SHALL CONFORM TO STATE STANDARD 90-1.01, 565 LBS/CY CEMENTITIOUS MATERIAL (6 SACK), TROWELLED TO STREET GRADE, AND ALLOWED TO CURE 48 HOURS PRIOR TO FULL TRAFFIC USE.
3. PROVIDE 3" OR 6" (9" MAX) ADJUSTING RINGS AS NEEDED, GROUTED ON THE INSIDE. PROVIDE HYDRAULIC CEMENT GROUT BETWEEN MANHOLE FRAME AND TOP RING SHALL BE PER APPENDIX C3.
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5. JOINTS SHALL BE WATERTIGHT, SET WITH BUTYL RUBBER SEALANT (RUB'R-NEK OR EQUAL).
6. CONCRETE MANHOLE BASE SHALL CONFORM TO STATE STANDARD 90-1.01, 565 LBS/CY CEMENTITIOUS MATERIAL (6 SACK), AND REST UPON UNDISTURBED MATERIAL. BOTTOM SHAFT SHALL BE WET-SET OR SET IN FORMED GROOVE. PRECAST BASES MAY BE USED WITH PRIOR APPROVAL OF THE DEPARTMENT AND SHALL MEET ASTM C-478 61T.
7. CONCRETE CHANNEL SHALL BE STEEL TROWEL FINISH AND SHELF AREAS SHALL BE MONOLITHICALLY PLACED.
8. LATERAL CONNECTION OVER 5' TO BE P.V.C. FOR DROP TEE, PIPE, AND 90° BEND.
9. INSTALL REMOVABLE PLUG.
10. SEWER CLEANOUT BOX PER STANDARD DRAWING S-2.
11. UNDER NO CIRCUMSTANCES SHALL UTILITY LIDS AND CONCRETE COLLARS BE LOCATED WITHIN CURBS, GUTTERS, SIDEWALKS, DRIVEWAY APRONS, CURB RAMPS, OR CROSS GUTTERS.



SECTION A-A



TYPICAL CONNECTION DETAIL



PLAN VIEW



LID DETAIL

PINKERTON A-640 WITH SKID RESISTANT SURFACE, BLIND PICKHOLE, WATER TIGHT GASKET, AND HS-20 TRAFFIC LOADING, OR APPROVED EQUAL, MARKED "SANITARY SEWER"



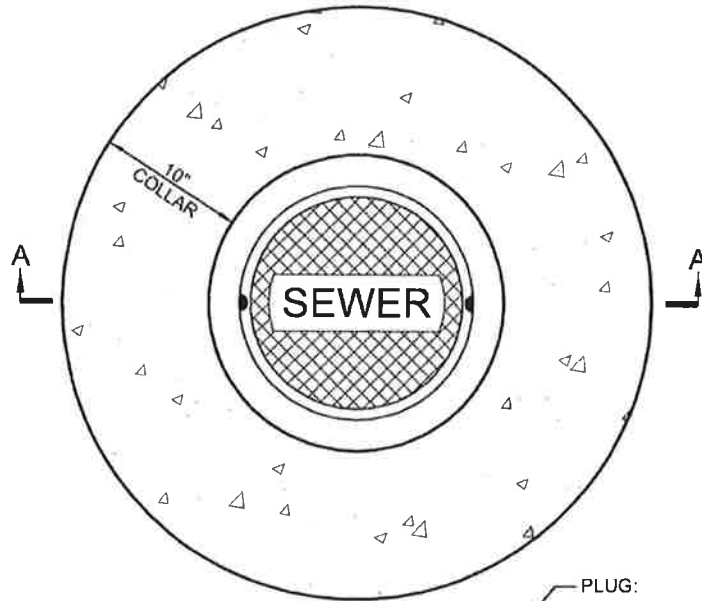
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION

SEWER DROP MANHOLE

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NTS	2011
Drawing No:	S-1a
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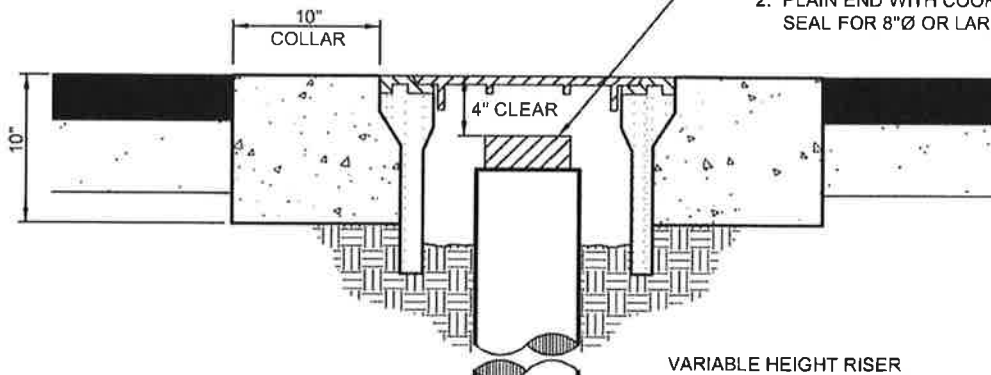
Revisions

Description	Approved	Date	Description	Approved	Date
NOTE 3	REM	NOV 07			

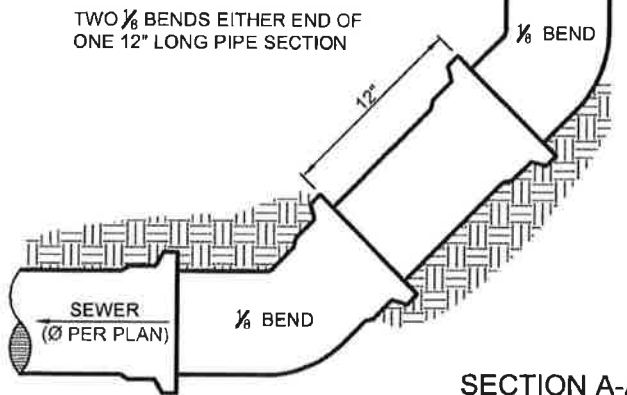


PLAN

- PLUG:
1. EXPANDABLE O-RING PLUG FOR 6" Ø PIPE BELL WITH CAP, OR
 2. PLAIN END WITH COOKIE AND BAND SEAL FOR 8"Ø OR LARGER PIPES



VARIABLE HEIGHT RISER



SECTION A-A

NOTES:

1. NO LATERALS ARE TO BE CONNECTED TO CLEANOUTS.
2. VALVE BOX SHALL BE CHRISTY G-12 TRAFFIC VALVE BOX WITH G-12C LID (OR APPROVED EQUAL). COVER SHALL BE MARKED "SEWER".
3. CONCRETE COLLAR SHALL CONFORM TO STATE STANDARD 90-1.01, 565 LBS/CY CEMENTITIOUS MATERIAL [6 SACK], TROWELLED TO STREET GRADE, AND ALLOWED TO CURE 48 HOURS PRIOR TO FULL TRAFFIC USE.
4. UNDER NO CIRCUMSTANCES SHALL UTILITY LIDS AND CONCRETE COLLARS BE LOCATED WITHIN CURBS, GUTTERS, SIDEWALKS, DRIVEWAY APRONS, CURB RAMPS, OR CROSS GUTTERS.



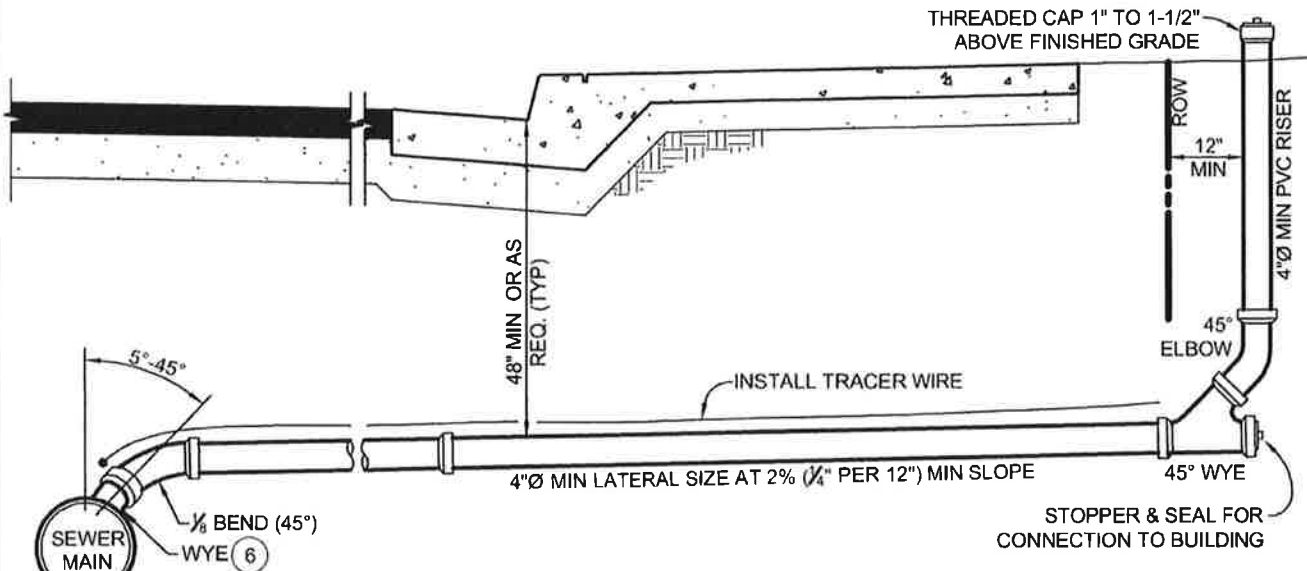
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION

SEWER MAIN CLEANOUT

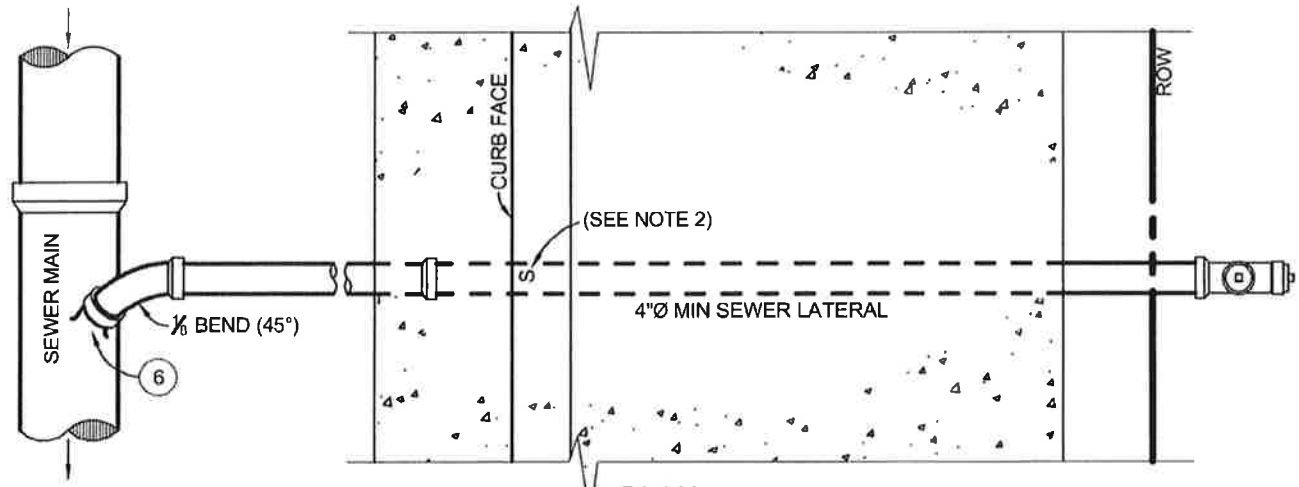
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NTS	2011
Drawing No:	S-2
Sheet No:	

Revisions

Description	Approved	Date	Description	Approved	Date



ELEVATION



PLAN

NOTES:

- SEWER LATERAL SHALL BE 4"Ø PVC PIPE AND SHALL MEET ASTM STANDARD D 3034, SDR 35.
- AN "S" SHALL BE STAMPED OR CHISELED ON THE CURB OVER THE SEWER LATERAL WHEN CURB AND GUTTER IS EITHER CONSTRUCTED OR EXISTING. THE "S" SHALL BE A MINIMUM OF 3" HIGH x 2" WIDE x 3/16" DEEP.
- MAINTAIN A 5' MINIMUM SEPARATION BETWEEN WATER AND SEWER SERVICE LATERALS.
- SEWER LATERALS SHALL NOT BE LOCATED UNDER DRIVEWAYS.
- SADDLE CONNECTIONS ARE NOT PERMITTED ON NEW SEWER MAINS.
- FACTORY-FABRICATED WYE IN SEWER MAIN WITH 1/8 (45°) BEND. BEND SHALL POINT DOWNSTREAM AND ENTER MAIN AT A VERTICAL ANGLE OF NOT LESS THAN 5° OR MORE THAN 45°. FOR SEWER LATERALS CONNECTING ONTO EXISTING SEWER MAIN A SADDLE TEE-BRANCH MAYBE USED IF APPROVED BY THE DEPARTMENT.
- UNDER NO CIRCUMSTANCES SHALL UTILITY LIDS AND CONCRETE COLLARS BE LOCATED WITHIN CURBS, GUTTERS, SIDEWALKS, DRIVEWAY APRONS, CURB RAMPS, OR CROSS GULLERS.



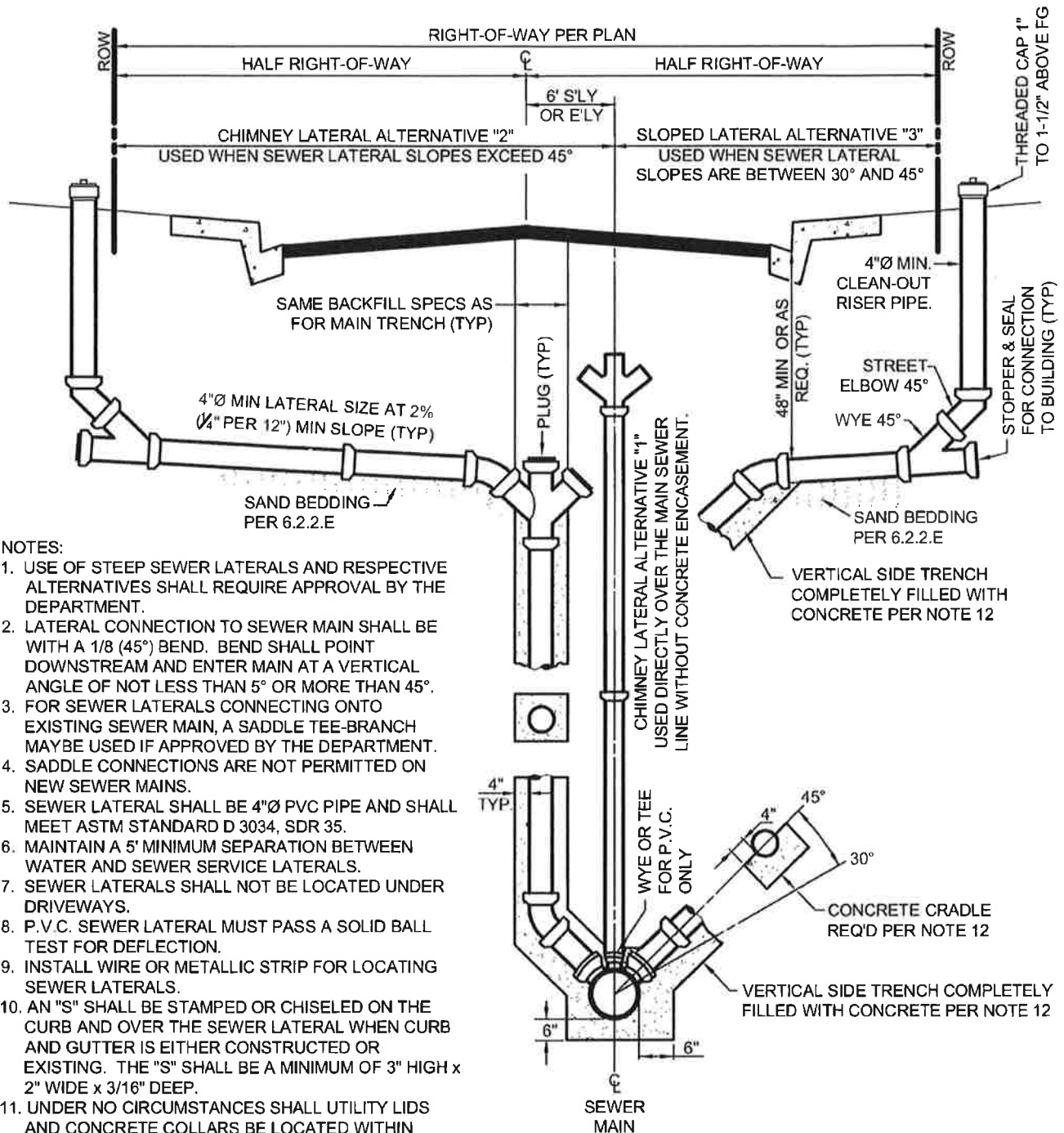
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION

SEWER LATERAL

Scale: NTS	Adopted: 2011
Drawing No:	S-3
Sheet No:	1 OF 1

Revisions

Description	Approved	Date	Description	Approved	Date
ADDED NOTE 12	REM	NOV 07			



NOTES:

1. USE OF STEEP SEWER LATERALS AND RESPECTIVE ALTERNATIVES SHALL REQUIRE APPROVAL BY THE DEPARTMENT.
2. LATERAL CONNECTION TO SEWER MAIN SHALL BE WITH A 1/8 (45°) BEND. BEND SHALL POINT DOWNSTREAM AND ENTER MAIN AT A VERTICAL ANGLE OF NOT LESS THAN 5° OR MORE THAN 45°.
3. FOR SEWER LATERALS CONNECTING ONTO EXISTING SEWER MAIN, A SADDLE TEE-BRANCH MAY BE USED IF APPROVED BY THE DEPARTMENT.
4. SADDLE CONNECTIONS ARE NOT PERMITTED ON NEW SEWER MAINS.
5. SEWER LATERAL SHALL BE 4"Ø PVC PIPE AND SHALL MEET ASTM STANDARD D 3034, SDR 35.
6. MAINTAIN A 5" MINIMUM SEPARATION BETWEEN WATER AND SEWER SERVICE LATERALS.
7. SEWER LATERALS SHALL NOT BE LOCATED UNDER DRIVEWAYS.
8. P.V.C. SEWER LATERAL MUST PASS A SOLID BALL TEST FOR DEFLECTION.
9. INSTALL WIRE OR METALLIC STRIP FOR LOCATING SEWER LATERALS.
10. AN "S" SHALL BE STAMPED OR CHISELED ON THE CURB AND OVER THE SEWER LATERAL WHEN CURB AND GUTTER IS EITHER CONSTRUCTED OR EXISTING. THE "S" SHALL BE A MINIMUM OF 3" HIGH x 2" WIDE x 3/16" DEEP.
11. UNDER NO CIRCUMSTANCES SHALL UTILITY LIDS AND CONCRETE COLLARS BE LOCATED WITHIN CURBS, GUTTERS, SIDEWALKS, DRIVEWAY APRONS, CURB RAMPS, OR CROSS GUTTERS.
12. CONCRETE THRUST BLOCKS SHALL CONFORM TO STATE STANDARD 90-1.01, 470 LBS/CY CEMENTITIOUS MATERIAL [5 SACK].

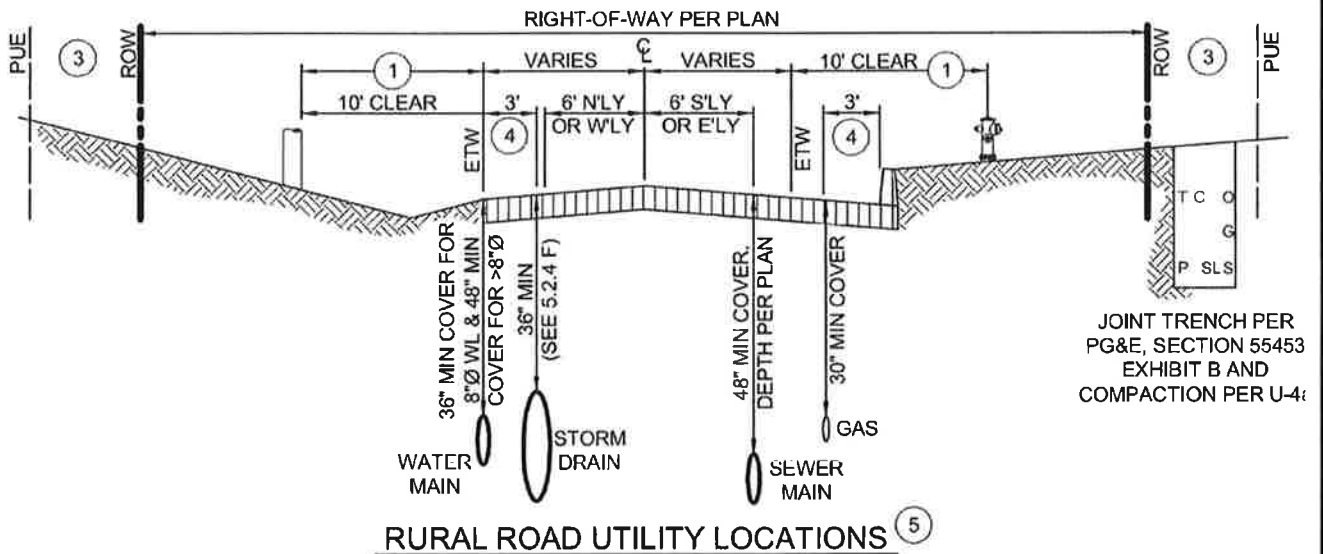
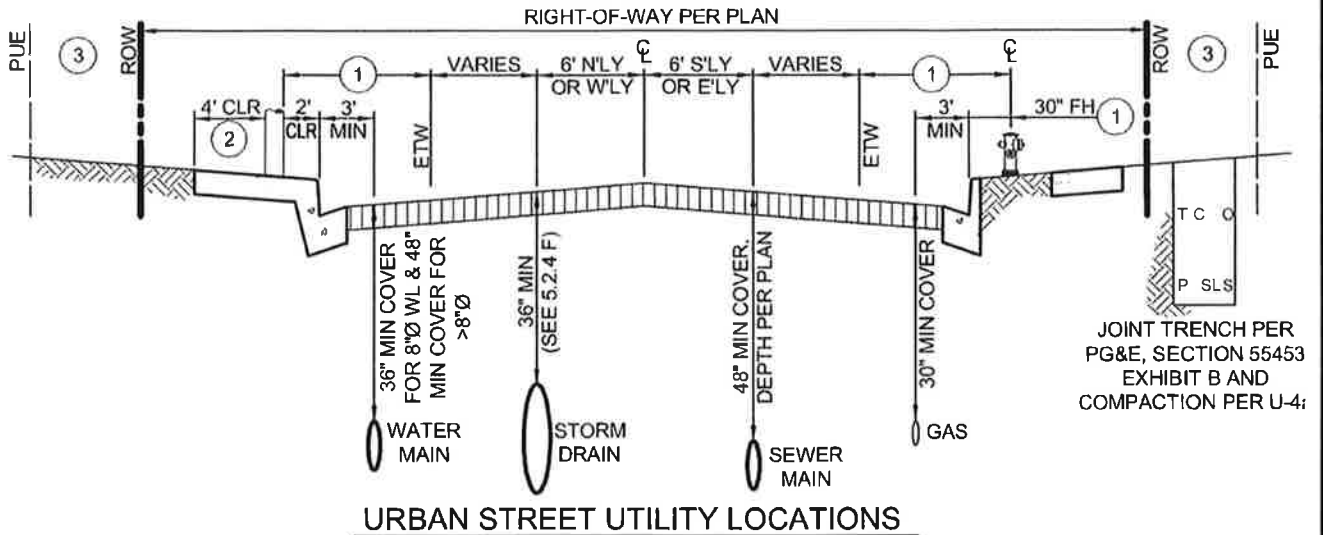


DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION
SEWER LATERAL
FOR DEEP MAINS

Scale: NTS	Adopted: 2011
Drawing No: S-3a	
Sheet No:	1 OF 1

Revisions

Description	Approved	Date	Description	Approved	Date
ADD NOTE 10	REM	NOV 07			
MODIFY NOTE 1, MIN SD COVER, JOINT TRENCH NOTE	GDM	JAN 11			



NOTES:

- ON RURAL ROADS ALL ABOVE GRADE FIXED OBJECTS (UTILITY POLES, LIGHT STANDARDS, ETC.) SHALL BE LOCATED AT LEAST 10-FEET CLEAR FROM THE EDGE OF TRAVELED WAY. ON URBAN STREETS THE FIXED OBJECTS MAY BE LOCATED 24-INCHES CLEAR FROM FACE OF CURB OR HMA DIKE ON LOW SPEED ROADS WITH DESIGN SPEEDS <40 mph.
- PROVIDE 4-FOOT UNOBSTRUCTED CLEARANCE BETWEEN ALL ABOVE GRADE OBSTACLES AND THE BACK OF SIDEWALK (MAY REQUIRE ADDITIONAL SIDEWALK WIDENING).
- LOCATE UTILITY VAULTS, METER BOXES, PEDESTALS, TRANSFORMERS, ETC. WITHIN PUE AND NOT WITHIN THE SIDEWALK.
- FOR RURAL ROAD CONDITIONS, GAS AND WATER LINES SHALL BE LOCATED AT 3-FEET OFF FACE OF DIKE OR AT EDGE OF PAVEMENT.
- THE DEPARTMENT MAY REQUIRE URBAN ROAD UTILITY STANDARD LOCATIONS FOR RURAL ROADS.
- STREET CROSSINGS OF WIRE AND GAS UTILITIES SHALL REQUIRE A MINIMUM 30" OF COVER AND SHALL BE AT RIGHT ANGLES TO THE ROADWAY CENTERLINE.
- ABOVE GRADE UTILITY APPURTENANCES SHALL BE LOCATED AS TO MEET DEPARTMENT SIGHT DISTANCE REQUIREMENTS (REFER TO A-5 SERIES DRAWINGS).
- REFER TO STANDARD DRAWING U-2 FOR LOCATION OF SERVICE LATERALS AND WATER METER BOXES.
- UNDER NO CIRCUMSTANCES SHALL UTILITY LIDS AND CONCRETE COLLARS BE LOCATED WITHIN CURBS, GUTTERS, SIDEWALKS, DRIVEWAY APRONS, CURB RAMPS, OR CROSS GUTTERS.
- PROVIDE 12-INCH MINIMUM CLEARANCE BETWEEN STORM DRAIN CROSSINGS WITH WATER AND SEWER LINES.



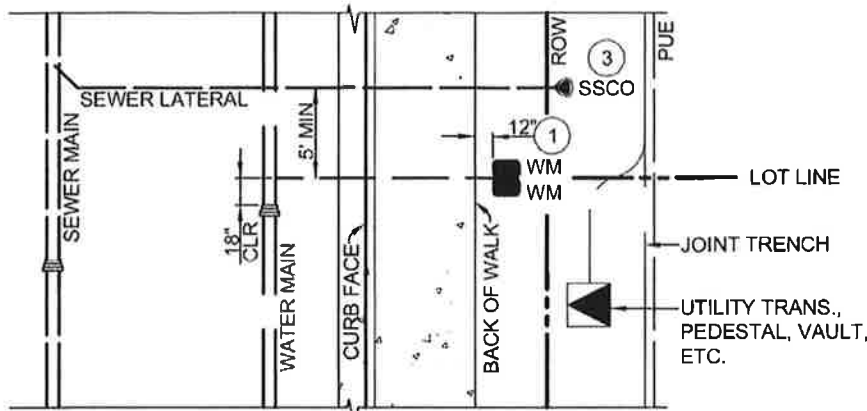
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION

LOCATION OF UTILITIES

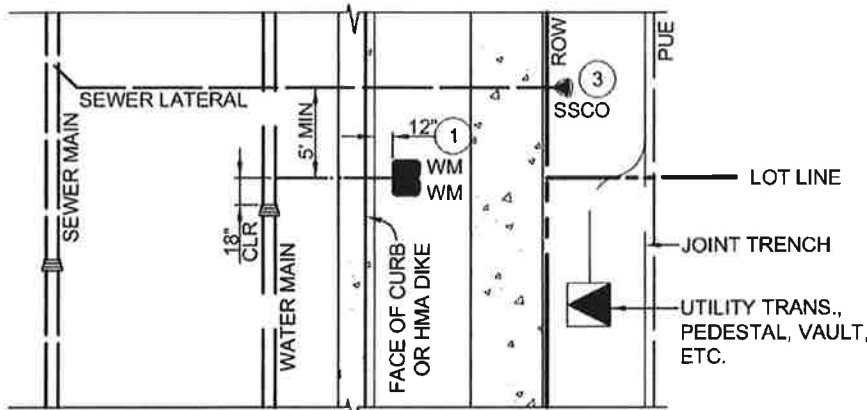
Scale: NTS	Adopted: 2011
Drawing No: U-1	
Sheet No: 1 OF 1	

Revisions

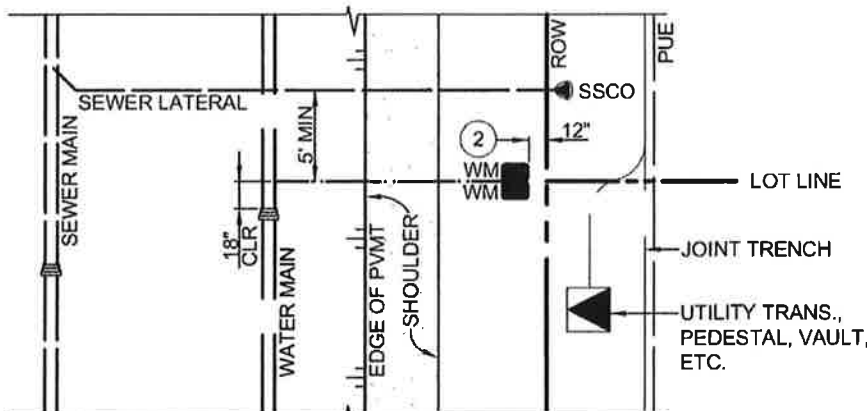
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URBAN CURB, GUTTER & SIDEWALK



RURAL HMA DIKE OR
URBAN CURB WITH DETACHED SIDEWALK



RURAL EDGE OF PAVEMENT

NOTES:

1. LOCATE WATER METER VAULT 12" BEHIND BACK OF CURB OR BACK OF AC DIKE.
2. LOCATE WATER METER VAULT 12" INSIDE RIGHT-OF-WAY.
3. SEWER CLEAN-OUTS SHALL BE LOCATED OUTSIDE OF SIDEWALK AND DRIVEWAY AREAS.
4. ALL WATER METER VAULTS (BOXES) SHALL BE PER STANDARD DRAWINGS.
5. WIRE UTILITY JOINT TRENCH AND APPURTENANCES ARE SHOWN FOR REFERENCE ONLY. REFER TO THE RESPECTIVE UTILITY COMPANY'S HANDOUT PACKAGE FOR ACTUAL ALIGNMENTS AND CONSTRUCTION REQUIREMENTS.
6. WATER AND SEWER SERVICE LATERALS SHALL BE PERPENDICULAR TO THEIR RESPECTIVE MAIN LINES FOR EASE OF LOCATION. ALL WATER LINE TRENCHES SHALL HAVE BOTH TRACE WIRE AND TAPE, REFER TO STANDARD TRENCH DRAWINGS.
7. FOR UNPAVED AREAS, THE WATER METER BOX SHALL BE SET 1" TO 1-1/2" ABOVE FINISHED GRADE.



DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION

LOCATION OF SERVICE LATERALS

Scale: NTS	Adopted: 2011
Drawing No: U-2	
Sheet No:	1 OF 1

Revisions

Description	Approved	Date	Description	Approved	Date

NOTES:

THE "CALIFORNIA WATERWORKS STANDARDS" SETS FORTH THE MINIMUM SEPARATION REQUIREMENTS FOR WATER MAINS AND SEWER LINES AS CONTAINED IN SECTION 64630, TITLE 22, CALIFORNIA ADMINISTRATIVE CODE. THE FOLLOWING IS A SUMMARY OF THOSE REQUIREMENTS:

1. PARALLEL CONSTRUCTION: THE HORIZONTAL DISTANCE BETWEEN PRESSURE WATER MAINS AND SEWER LINES SHALL BE AT LEAST 10-FEET MEASURED FROM THE NEAREST EDGES OF THE FACILITIES.
2. PERPENDICULAR CONSTRUCTION (CROSSING): PRESSURE WATER MAINS SHALL BE AT LEAST 12-INCHES ABOVE SANITARY SEWER LINES WHERE THESE LINES MUST CROSS MEASURED FROM THE NEAREST EDGES OF THE FACILITIES.
3. COMMON TRENCH: WATER MAINS AND SEWER LINES SHALL NOT BE INSTALLED IN THE SAME TRENCH.
4. WHEN ADEQUATE PHYSICAL SEPARATION CANNOT BE ATTAINED, AN INCREASE IN THE FACTOR OF SAFETY SHOULD BE PROVIDED BY INCREASING THE STRUCTURAL INTEGRITY OF BOTH THE PIPE MATERIALS AND JOINTS.
5. LOCAL CONDITIONS MAY CREATE A SITUATION WHERE THERE IS NO ALTERNATIVE BUT TO INSTALL WATER MAINS OR SEWER LINES AT A DISTANCE LESS THAN THAT REQUIRED BY THE BASIC SEPARATION STANDARDS. IN SUCH CASES, ALTERNATIVE CONSTRUCTION CRITERIA AS SPECIFIED IN THIS STANDARD SHALL BE FOLLOWED.
6. DUE TO SPECIAL HAZARDS, INSTALLATIONS OF WATER MAINS AND SEWER LINES 24-INCHES DIAMETER OR LARGER SHALL BE REVIEWED AND APPROVED BY THE HEALTH AGENCY PRIOR TO CONSTRUCTION.
7. THE CONSTRUCTION CRITERIA SHOULD APPLY TO THE HOUSE LATERALS THAT CROSS ABOVE A PRESSURE WATER MAIN BUT NOT TO THOSE HOUSE LATERALS THAT CROSS BELOW A PRESSURE WATER MAIN.

ALTERNATIVE CRITERIA FOR CONSTRUCTION THE CONSTRUCTION CRITERIA FOR SEWER LINES OR WATER MAINS WHERE THE BASIC SEPARATION STANDARDS CANNOT BE ATTAINED ARE SHOWN AS CASE 1 & CASE 2 ON SHEETS 2 AND 3 OF U-3.



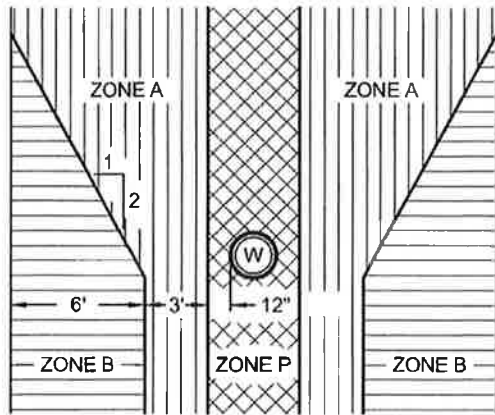
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION

UTILITY SEPARATION CRITERIA

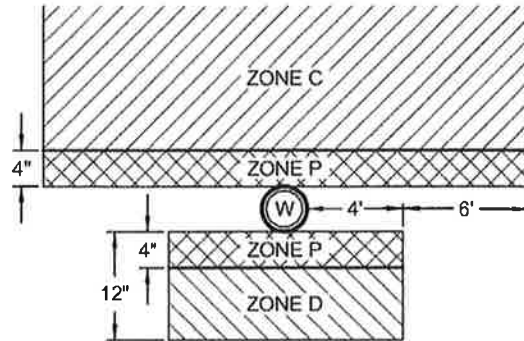
Scale:	Adopted: 2011
Drawing No:	U-3
Sheet No:	1 OF 3

Revisions

Description	Approved	Date	Description	Approved	Date



PARALLEL



CROSSING

ZONE	SPECIAL CONSTRUCTION REQUIRED FOR SEWER:
A	SEWER LINES PARALLEL TO WATER MAINS SHALL NOT BE PERMITTED IN THIS ZONE WITHOUT APPROVAL FROM THE RESPONSIBLE HEALTH AGENCY AND WATER SUPPLIER.
B	A SEWER LINE PLACED <u>PARALLEL</u> TO A WATER LINE SHALL BE CONSTRUCTED OF: 1. CLASS 4000, TYPE II, ASBESTOS-CEMENT PIPE WITH RUBBER GASKET JOINTS. 2. PLASTIC SEWER PIPE WITH RUBBER RING JOINTS (PER ASTM D3034) OR EQUIVALENT. 3. CAST OR DUCTILE IRON PIPE WITH COMPRESSION JOINTS. 4. REINFORCED CONCRETE PRESSURE PIPE WITH COMPRESSION JOINTS (PER AWWA C302-74).
C	A SEWER LINE <u>CROSSING</u> A WATER MAIN SHALL BE CONSTRUCTED OF: 1. DUCTILE IRON PIPE WITH HOT DIP BITUMINOUS COATING AND MECHANICAL JOINTS. 2. A CONTINUOUS SECTION OF CLASS 200 (DR 14 PER AWWA C900) PLASTIC PIPE, OR EQUIVALENT, CENTERED OVER THE PIPE BEING CROSSED. 3. A CONTINUOUS SECTION OF REINFORCED CONCRETE PRESSURE PIPE (PER AWWA C302-74) CENTERED OVER THE PIPE BEING CROSSED. 4. ANY SEWER PIPE WITHIN A CONTINUOUS SLEEVE.
D	A SEWER LINE <u>CROSSING</u> A WATER MAIN SHALL BE CONSTRUCTED OF: 1. A CONTINUOUS SECTION OF DUCTILE IRON PIPE WITH HOT DIP BITUMINOUS COATING. 2. A CONTINUOUS SECTION OF CLASS 200 (DR 14 PER AWWA C900) PLASTIC PIPE OR EQUIVALENT, CENTERED OVER THE PIPE BEING CROSSED. 3. A CONTINUOUS SECTION OF REINFORCED CONCRETE PRESSURE PIPE (PER AWWA C302-74) CENTERED OVER THE PIPE BEING CROSSED. 4. ANY SEWER PIPE WITHIN A CONTINUOUS SLEEVE. 5. ANY SEWER PIPE SEPARATED BY A 10-FOOT BY 10-FOOT, 4-INCH THICK REINFORCED CONCRETE SLAB.
P	ZONE P IS A PROHIBITED ZONE, SECTION 64630(E)(2) CALIFORNIA ADMINISTRATIVE CODE, TITLE 22.

CASE 1: NEW SEWER MAIN

ALTERNATIVE CONSTRUCTION CRITERIA
APPLIES TO NEW SEWER MAINS & NEW OR EXISTING WATER MAINS

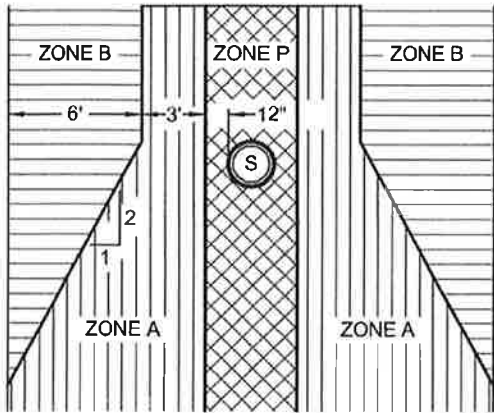


DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION
UTILITY SEPARATION CRITERIA
CASE 1: NEW SEWER MAINS

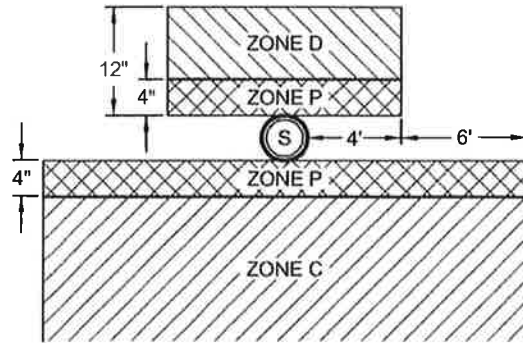
Scale: NTS	Adopted: 2011
Drawing No: U-3a	
Sheet No: 2 OF 3	

Revisions

Description	Approved	Date	Description	Approved	Date



PARALLEL



CROSSING

ZONE	SPECIAL CONSTRUCTION REQUIRED FOR WATER:
A	NO WATER MAINS PARALLEL TO SEWERS SHALL BE CONSTRUCTED WITHOUT APPROVAL FROM THE HEALTH AGENCY.
B	IF THE SEWER PARALLELING THE WATER MAIN DOES NOT MEET THE CASE 1, ZONE B REQUIREMENTS, THE WATER MAIN SHALL BE CONSTRUCTED OF: 1. DUCTILE IRON PIPE WITH HOT DIP BITUMINOUS COATING. 2. CLASS 200 PRESSURE RATED PLASTIC WATER PIPE (DR 14 PER AWWA C900) OR EQUIVALENT.
C	IF THE SEWER CROSSING THE WATER MAIN DOES NOT MEET THE CASE 1, ZONE C REQUIREMENTS, THE WATER MAIN SHALL HAVE NO JOINTS IN ZONE C AND BE CONSTRUCTED OF: 1. DUCTILE IRON PIPE WITH HOT DIP BITUMINOUS COATING. 2. CLASS 200 PRESSURE RATED PLASTIC WATER PIPE (DR 14 PER AWWA C900) OR EQUIVALENT.
D	IF THE SEWER CROSSING THE WATER MAIN DOES NOT MEET THE CASE 1, ZONE D REQUIREMENTS, THE WATER MAIN SHALL HAVE NO JOINTS WITHIN 4- FEET FROM EITHER SIDE OF THE SEWER AND SHALL BE CONSTRUCTED OF: 1. DUCTILE IRON PIPE WITH HOT DIP BITUMINOUS COATING. 2. CLASS 200 PRESSURE RATED PLASTIC WATER PIPE (DR 14 PER AWWA C900) OR EQUIVALENT.
P	ZONE P IS A PROHIBITED ZONE, SECTION 64630(E)(2) CALIFORNIA ADMINISTRATIVE CODE, TITLE 22.

CASE 2: NEW WATER MAIN

ALTERNATIVE CONSTRUCTION CRITERIA
APPLIES TO NEW WATER MAINS OR EXISTING SEWER MAINS



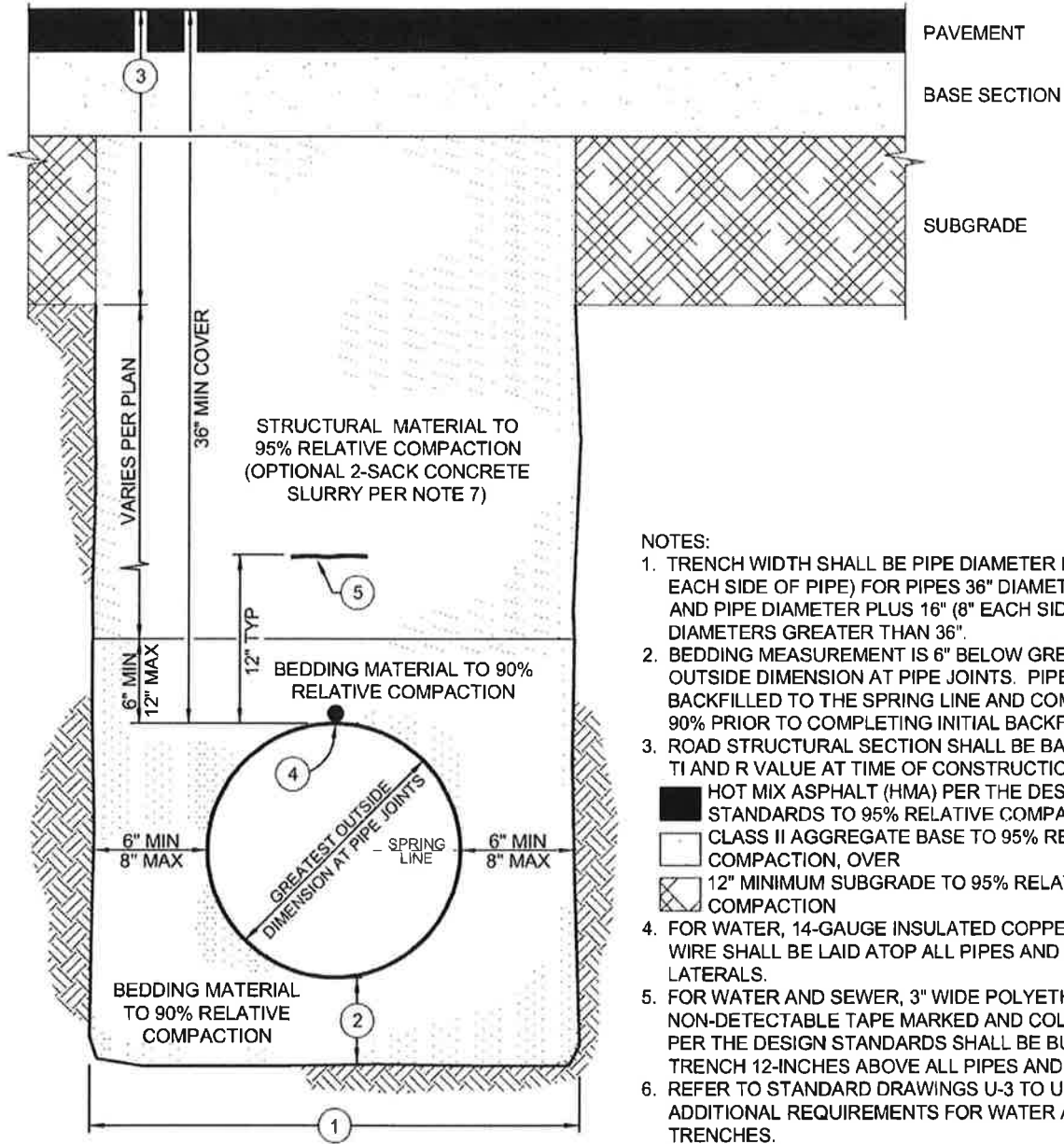
**DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION
UTILITY SEPARATION CRITERIA
CASE 2: NEW WATER MAINS**

Scale: NTS	Adopted: 2011
Drawing No: U-3b	
Sheet No: 3 OF 3	

Revisions

Description	Approved	Date	Description	Approved	Date
LOCATION OF DETECTOR WIRE & TAPE, NOTES 4 & 5	REM	NOV 07	NOTE 7 & REPLACE AC W/ HMA	GDM	JAN 11
MISC CLARIFICATION	GDM	NOV 08			

WHEN TRENCHING INTO EXISTING ROADS ALL WORK SHALL BE DONE IN ACCORDANCE WITH STANDARD DRAWINGS R-1 AND R-4.



NOTES:

- TRENCH WIDTH SHALL BE PIPE DIAMETER PLUS 12" (6" EACH SIDE OF PIPE) FOR PIPES 36" DIAMETER OR LESS, AND PIPE DIAMETER PLUS 16" (8" EACH SIDE) FOR PIPE DIAMETERS GREATER THAN 36".
- BEDDING MEASUREMENT IS 6" BELOW GREATEST OUTSIDE DIMENSION AT PIPE JOINTS. PIPE SHALL BE BACKFILLED TO THE SPRING LINE AND COMPACTED TO 90% PRIOR TO COMPLETING INITIAL BACKFILL.
- ROAD STRUCTURAL SECTION SHALL BE BASED ON THE TI AND R VALUE AT TIME OF CONSTRUCTION:
 - HOT MIX ASPHALT (HMA) PER THE DESIGN STANDARDS TO 95% RELATIVE COMPACTION, OVER
 - CLASS II AGGREGATE BASE TO 95% RELATIVE COMPACTION, OVER
 - ▨ 12" MINIMUM SUBGRADE TO 95% RELATIVE COMPACTION
- FOR WATER, 14-GAUGE INSULATED COPPER TRACER WIRE SHALL BE LAID ATOP ALL PIPES AND SERVICE LATERALS.
- FOR WATER AND SEWER, 3" WIDE POLYETHYLENE NON-DETECTABLE TAPE MARKED AND COLOR CODED PER THE DESIGN STANDARDS SHALL BE BURIED IN THE TRENCH 12-INCHES ABOVE ALL PIPES AND LATERALS.
- REFER TO STANDARD DRAWINGS U-3 TO U-3b FOR ADDITIONAL REQUIREMENTS FOR WATER AND SEWER TRENCHES.
- CONCRETE SLURRY TRENCH BACKFILL SHALL CONFORM TO STATE STANDARD 90-1.01, 188 LBS/CY CEMENTITIOUS MATERIAL [2 SACK], TO SURFACE OF BASE COURSE SECTION. DO NOT PLACE AGGREGATE BASE ABOVE SLURRY BACKFILL.

BEDDING MATERIAL		STRUCTURAL MATERIAL	
SIEVE SIZES	PERCENT PASSING	SIEVE SIZES	PERCENT PASSING
1"	100%	3"	100%
No. 4	80% - 100%	No. 4	35% - 100%
No. 200	0% - 15%	No. 30	20% - 100%

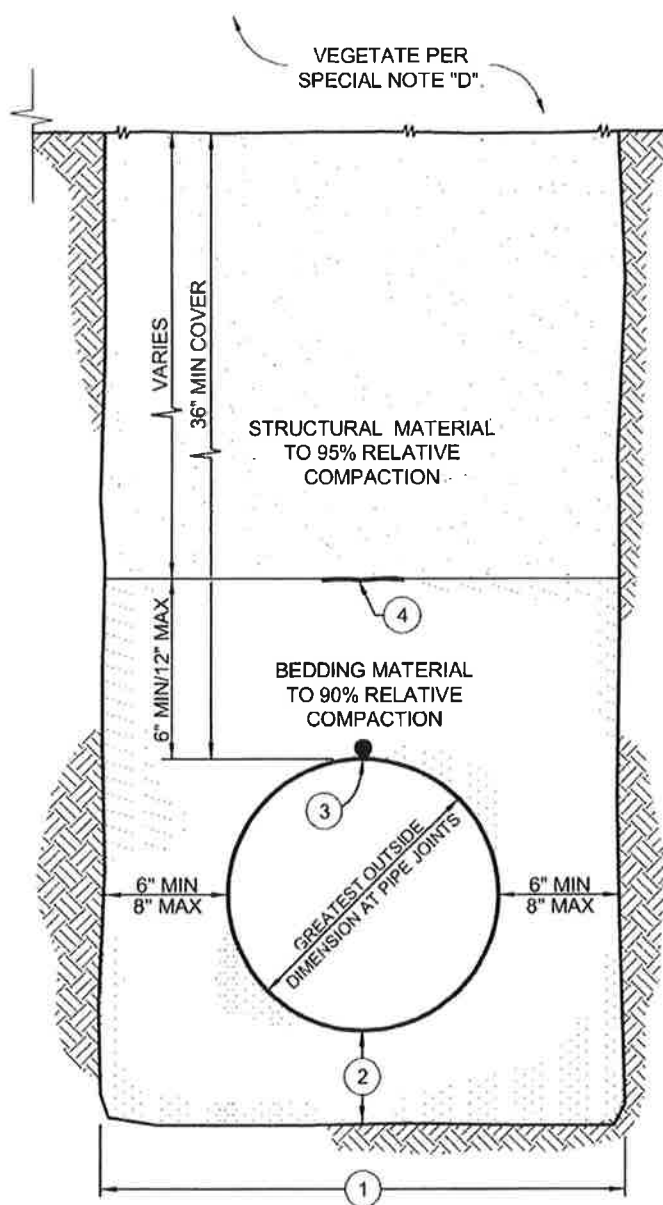


DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION
TRENCH DETAIL
 PAVED SURFACES

Scale: NTS	Adopted: 2011
Drawing No: U-4	
Sheet No: 1 OF 1	

Revisions

Description	Approved	Date	Description	Approved	Date
LOCATION OF DETECTOR WIRE & TAPE, NOTES 3 & 4	REM	NOV 07	PIPE COVER	GDM	JAN 11
REMOVE "SEWER" FROM NOTE 3	GDM	NOV 08			



NOTES:

1. TRENCH WIDTH SHALL BE PIPE DIAMETER PLUS 12" (6" EACH SIDE OF PIPE) FOR PIPES 36" DIAMETER OR LESS, AND PIPE DIAMETER PLUS 16" (8" EACH SIDE) FOR PIPE DIAMETERS GREATER THAN 36".
2. BEDDING MEASUREMENT IS 6" BELOW GREATEST OUTSIDE DIMENSION AT PIPE JOINTS. PIPE SHALL BE BACKFILLED TO THE SPRING LINE AND COMPACTED TO 90% PRIOR TO COMPLETING INITIAL BACKFILL.
3. FOR WATER, 14-GAUGE INSULATED COPPER TRACER WIRE SHALL BE LAID ATOP ALL PIPES AND SERVICE LATERALS.
4. FOR WATER AND SEWER, 3" WIDE POLYETHYLENE NON-DETECTABLE TAPE MARKED AND COLOR CODED PER THE DESIGN STANDARDS SHALL BE BURIED IN THE TRENCH 12-INCHES ABOVE ALL PIPES AND LATERALS.
5. REFER TO STANDARD DRAWINGS U-3 TO U-3b FOR ADDITIONAL REQUIREMENTS FOR WATER AND SEWER TRENCHES.

SPECIAL NOTES:

- A. SPECIAL CONSIDERATION SHALL BE TAKEN BY THE DESIGNER TO ENSURE SURFACE DRAINAGE WILL NOT ENTER THE TRENCH.
- B. WHEN TRENCHING ON STEEP SLOPES, CUT-OFF WALLS AND/OR PIPE ANCHORS MAY BE REQUIRED BY THE DEPARTMENT AND SHALL BE DETAILED ON THE PLANS.
- C. TRENCHING ALIGNMENT SHALL BE DESIGNED TO AVOID DAMAGE TO EXISTING TREES AND THEIR ROOT SYSTEMS. WHEN ADJACENT TO TREES THEN THE TRENCHING RECOMMENDATIONS OF THE PROJECT BOTANIST SHALL BE FOLLOWED.
- D. THE UPPER SURFACE SHALL BE SCARIFIED AND REVEGETATED. VEGETATIVE COVER SHALL BE ESTABLISHED PRIOR TO ACCEPTANCE OF WORK.

BEDDING MATERIAL		STRUCTURAL MATERIAL	
SIEVE SIZES	PERCENT PASSING	SIEVE SIZES	PERCENT PASSING
1"	100%	3"	100%
No. 4	80% - 100%	No. 4	35% - 100%
No. 200	0% - 15%	No. 30	20% - 100%

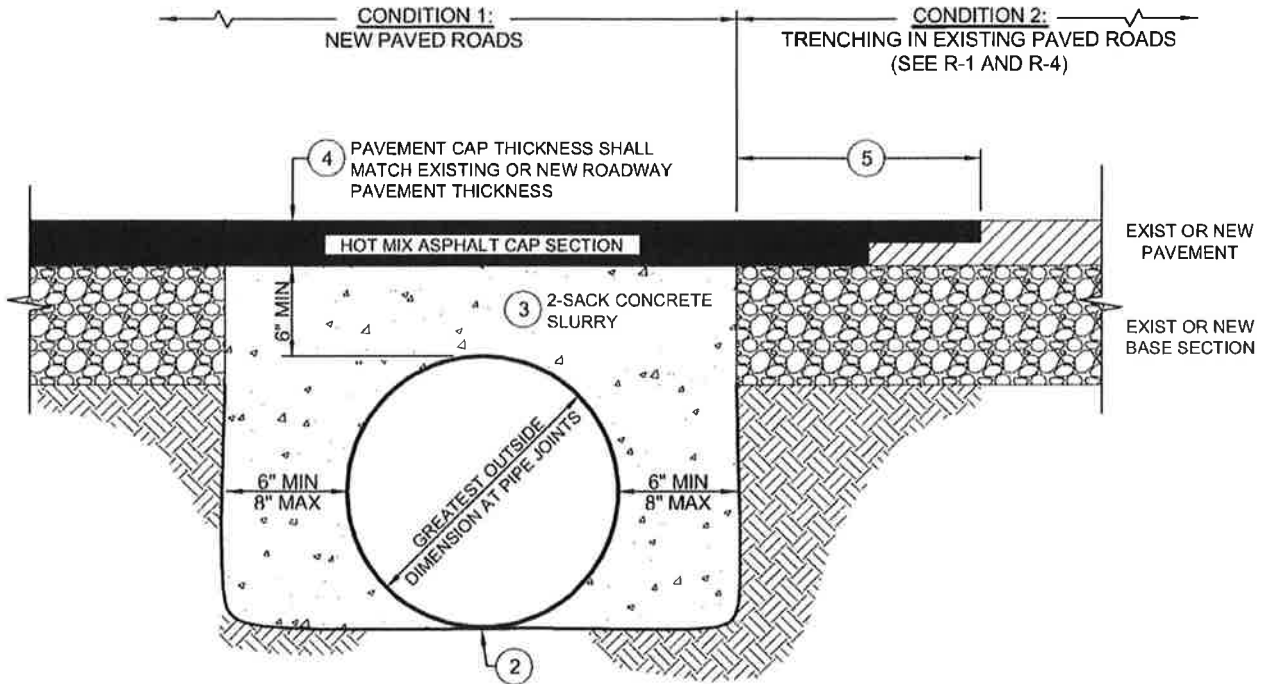


DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION
TRENCH DETAIL
OUTSIDE ROADWAY PRISM

Scale: NTS	Adopted: 2011
Drawing No: U-4a	
Sheet No:	1 OF 1

Revisions

Description	Approved	Date	Description	Approved	Date
NOTE 3	REM	NOV 07	REPLACE AC WITH HMA	GDM	JAN 11
CHANGE 3 SACK TO 2 SACK, MISC CLARIFICATIONS	GDM	NOV 08			



NOTES:

1. USE OF THIS STANDARD DRAWING REQUIRES PRIOR DEPARTMENT APPROVAL AND SHALL ONLY BE ALLOWED IF REQUIRED COVER CANNOT BE ATTAINED.
2. PIPE SHALL BE PLACED ON UNDISTURBED NATIVE MATERIAL UNLESS EXISTING SOILS CONDITIONS REQUIRE ADDITIONAL MEASURES.
3. CONCRETE SLURRY TRENCH BACKFILL SHALL CONFORM TO STATE STANDARD 90-1.01, 188 LBS/CY CEMENTITIOUS MATERIAL [2 SACK], TO SURFACE OF BASE COURSE SECTION. DO NOT PLACE AGGREGATE BASE ABOVE SLURRY BACKFILL.
4. HOT MIX ASPHALT (HMA) PAVEMENT THICKNESS TO MATCH EXISTING PAVEMENT SECTION OR MATCH APPROVED PAVEMENT THICKNESS FOR NEW ROADS.
5. WHEN TRENCHING INTO EXISTING STRUCTURAL SECTION PAVEMENT REPAIR SHALL BE IN ACCORDANCE WITH STANDARD DRAWINGS R-1 AND R-4.
6. PIPE SHALL BE SECURED IN PLACE TO KEEP LINE AND GRADE WHILE CONCRETE SLURRY IS PLACED AND UNTIL THE SLURRY HAS SET.
7. THE DEPARTMENT MAY REQUIRE ADDITIONAL WORK WHEN TRENCHING IN EXISTING ROADS HAVING CONCRETE STRUCTURAL SECTIONS.



DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION

SHALLOW TRENCH DETAIL

Scale: NTS
Adopted: 2011

Drawing No: U-4b

Sheet No: 1 OF 1

7. Wastewater Disposal

Sanitary sewer lines and appurtenances within County-operated special districts shall be constructed in accordance with the details shown on plans and specifications approved by the Department.

Where a sewer system in the unincorporated area of the County is to be operated and/or maintained by any public agency other than the County, or other purveyor regulated by the State of California, the plans and specifications and construction must be approved by both the Department and by that entity. In the event of any discrepancy or conflict between these Public Improvement Standards and the requirements of said wastewater service purveyor, that entity's requirements shall take precedence.

7.1 Design Standards

7.1.1 Quantity of Flow

- A. Average Flow Rate. An average flow of 100 gallons per person per day shall be used for design purposes, with the peak flow double the average flow. Pipes shall be sized to handle peak flows with the pipe flowing half full for sewers up to 15-inches in diameter. Larger sanitary sewers shall be designed to flow three-quarters full.
- B. Number of Persons Served. Accurate population estimates will be required to determine the quantity of flow. Multiply the future population by the average per capita wastewater flow, given in (A) above. Estimates of the number of visitors associated with recreational uses, which experience high seasonal fluctuation, can be converted to equivalent full-time residents by multiplying the number of visitors by the appropriate multiplier below:

Day-use visitor	0.1-0.2
Seasonal visitor	0.5-0.8

The number of persons shall be determined for a 50-year period, which is the length of time that the capacity of the sanitary sewer will be adequate. Day-use visitors are those who do not stay overnight (for example, boating or picnicking), and seasonal visitors are those who stay for short multi-day stays during peak recreational seasons (for example, camping or cabins).

7.1.2 Collection System

- A. Minimum Velocity. Sanitary sewer grades shall be designed to provide a minimum velocity of 2 fps when flowing at peak discharge as determined in section 7.1.1 A, above. The minimum velocity requirement is necessary to prevent the deposition of solids. The following table indicates the slopes which will provide that velocity, and these shall be used as the minimum standard for design.

Table 7-1: Minimum Slope for Sanitary Sewer

Diameter	Slope in Feet/Foot
6 inch	0.0050
8 inch	0.0035
10 inch	0.0025
12 inch	0.0020
15 inch	0.0015
18 inch	0.0012
House service line	0.02

Sewers larger than 18 inches diameter shall be designed to the approval of the Department.

- B. Change in Pipe Size or Angle Point. Whenever a change in the size of the pipe, or an angle of 20 degrees or greater in alignment occurs, the flowline of the pipe flowing into the manhole shall be a minimum of 0.17-foot above the flowline of the pipe flowing from the manhole, or an amount necessary to match the inside crowns of the pipe, whichever is greater.
- C. Maximum Velocity. Unless special provisions for erosion protection have been provided, and approved by the Department, design velocities for sanitary sewers shall not exceed 10 fps at peak flow. The maximum design discharge shall not exceed the flow at critical slope and velocity. Sanitary sewers should not be designed for flow conditions at critical slope and velocity.
- D. General Location. Sewer lines shall be installed in accordance with Standard Drawing U-1 where possible. See Standard Drawing series U-3 for special construction requirements when sewer lines are to be placed in close proximity with water lines.
- E. Locate Sewers Within Streets and Roads. All sanitary sewers designed for the collection and conveyance of domestic sewage and/or industrial wastes shall be constructed and installed within rights-of-way dedicated for public streets or roads, unless such construction or installation is determined to be impractical by the Department. The location of the sanitary sewers installed in any street or road not having frontage roads shall normally be 6-feet southerly or easterly of the centerline of the street.
- F. Sewer Lines Within Easements. Where sewer lines are located within easements, the easements shall be offered for dedication to the public. The minimum width of any easement for sanitary sewer purposes shall be 10-feet. In special cases of terrain, depth of sewer line, etc., the required easement width shall be increased. All easements shall include right of ingress and egress over adjoining property for maintenance, replacement and operation.
- G. Alignment. Sewerage systems shall be designed so as to have a minimum of curvature, both horizontal and vertical. Whenever possible, sewer lines shall be laid out in a straight line between structures. Curved sewer lines will be allowed only under the following conditions:
- All curve data shall be shown on the plans.
 - Minimum radius of curvature shall be as recommended by the pipe manufacturer and approved by the Department.
 - No deflections shall be made at the pipe joints.

- H. Depth. The normal design depth of a sanitary sewer system shall be such as to obtain a cover of 36-inches above the top of pipe for the house service lateral at the property line.
- I. Size. The normal minimum sewer main size shall be 8-inches inside diameter.

7.1.3 Areas of Conflict Between Water and Sewer Lines

In the interest of public health and to minimize the possibility of contamination of the public water supply, the construction requirements included in Standard Drawing Series U-3 shall be met at any time that the separation between water and sewer lines is less than the basic separation standards contained in State regulations. These requirements apply to construction of a water main, sewer main, sewer lateral, or any other type construction causing the separation to be less than that indicated. All special construction required herein is to be discussed thoroughly with the Department of Public Works, and the Department of Public Health/Environmental Health Services, prior to starting any work and is subject to Department of Public Works approval.

7.2 Construction Specifications

7.2.1 Materials

All material that is to become a permanent part of any sanitary sewer or appurtenant structure, shall conform to the requirements for the particular material as set forth in these specifications. The Contractor shall supply any and all certificates of compliance, certified test results or shall perform tests as required to assure the Department that the material being incorporated into the work has met the requirements as specified. Approval of the Department shall be required for use of material not listed in these standards.

- A. Pipe. All sanitary sewer lines shall be ductile iron pipe, plastic PVC pipe or approved by the Department. All pipe shall be of the size, material and strength as shown on the plans. All pipe and fittings shall be marked or stamped with the trade brand name of the manufacturer, and strength or class of pipe. All pipe shall be designed to withstand all internal or external loads applied. Supporting strength of conduits as installed to safely carry imposed gravity loads and superimposed loads (including a suitable factor of safety) shall be determined by use of the Marston formula. Additionally the following requirements apply for specific kinds of pipe:
 - 1. Ductile Iron Pipe. All ductile iron pipe and fittings for main sewers shall conform to AWWA Standards C151 and C153. Joints shall be approved type mechanical joints. No lead joints will be allowed.
 - 2. Polyvinyl Chloride (PVC) Pipe. PVC pipe must meet at least ASTM Standard D-3034/SDR 35. Deflection tests shall be required as prescribed by the Department.

7.2.2 Facilities

- A. Manholes. Normal maximum spacing for manholes shall be 400-feet. Where the locations of two manholes are determined by intersecting lines, the distances between intervening manholes shall be approximately equal. A sewer on a curved alignment shall have manholes spaced at a maximum of 300-feet, or adjusted to fit the individual case. The maximum spacing of manholes on trunk sewer lines shall be as follows:

Table 7-2: Maximum Spacing of Sewer Manholes

Size of Trunk Sewer Line	Maximum Spacing
12" to 24" diameter	500-feet
27" to 36" diameter	600-feet

The spacing of manholes on trunk sewer lines larger than 36-inches in diameter shall be determined for each individual case.

- B. **Drop Manholes.** Whenever the vertical distance between the inverts of sewer lines coming into a manhole exceeds 30-inches, a standard drop manhole shall be constructed. Designs requiring the use of drop manholes shall be avoided, and shall require prior approval by the Department where they cannot be avoided.
- C. **Other Facilities.** Other wastewater facilities shall conform to the following requirements:
1. **Stub Lines.** A flusher branch may be used in lieu of a manhole for any stub line with a length of 200-feet or less. Any line more than 200-feet in length shall have a manhole at the end.
 2. **Extension Lines.** Lateral sewers installed to a subdivision line for future extension shall have a flusher branch at the end, if there are any house service lines attached to it, and if it is not over 200-feet in length. Lines longer than 200-feet shall terminate in a manhole with a stub for future extension.
 3. **House Service Lines.** In all new subdivision work, the house service lines from the sewer to the property line shall be installed at the time the sewer is constructed. Each house service line shall be referenced to the plan stationing. Minimum size of any sanitary lateral or side sewer to serve individual residences, commercial structures, etc., shall be nominal 4-inches inside diameter. Actual size of laterals larger than 4-inches shall be determined by fixture unit requirements as per the current edition of the Uniform Plumbing Code.
- D. **Special Facilities.** All special facilities such as lift stations, force mains and treatment plants shall meet all requirements of the State Regional Water Quality Control Board, State and County Health Department and the Department of Public Works. Special structures, such as pump stations and pressure lines, shall require special considerations and approval by the Department. The design of all such facilities and structures shall provide for access by maintenance vehicles.
1. **Lift Stations.** The minimum distance from a lift station to any residence shall be 50-feet, except with advance approval of the Department. No lift station shall be constructed with bypasses which will bypass any effluent into any stream or watercourse. An alarm system, which meets the approval of the Department, shall be provided on all sewage lift stations. In addition, all lift station controls shall be approved by Public Works' Utilities Division operations staff. All lift stations shall have emergency power connections.
 2. **Lift Station and Force Main.** Whenever the design of a sanitary sewerage system includes the necessity of a sewage lift station and a force main, the following data shall be submitted for tentative approval before plans are submitted: Design computations for the pumps or ejectors, the type to be used, and a plot plan showing the dimensions of the site and its location with respect to homes or other structures. The maximum recommended velocity in the station discharge piping is 8-fps. The minimum discharge velocity in the force main shall be 4-fps at a designed capacity, in order to achieve cleansing velocity.
 3. **Force Mains.** Pipe used in the construction of force mains shall be either ductile iron pipe or C200 (DR14 per AWWA C900) plastic pipe.

7.2.3 Installation

- A. Lines and Grades. All lines and grades will be set by the Project Engineer, and the Department shall be informed 24 hours in advance of the times and places at which work is to be done, in order that lines and grades may be inspected and necessary measurements made with a minimum of inconvenience and delay. All stakes and marks, once set, shall be fully protected and preserved. Flow line elevations shall be established at all changes in grade and at 50-foot intervals.
- B. Trench Widths. The maximum width of trench, measured at the top of pipe, shall be governed in all cases by the size of the pipe to be installed therein. Refer to Standard Drawing series U-4 for trenching and backfill requirements. For pipe 36-inches in diameter or less, the trench width shall be the outside diameter of the pipe, plus 12-inches (6-inches each side of pipe). For pipe diameters greater than 36-inches, the trench width shall be the outside diameter of the pipe, plus 16-inches (8-inches each side of pipe). The sides of the trench shall be as nearly vertical as possible in the material through which it is passing. If the width of the trench at the ground surface becomes excessive, the Department may require solid sheeting and bracing.
- C. Excavation. Unless otherwise specified, the excavation for sewer mains shall be completed in the same manner as described for water mains in Chapter 6.
- D. Laying Pipe. Pipe shall be laid in accordance with the manufacturer's specifications. All PVC pipe and fittings for underground gravity sewers shall be installed in accordance with the requirements of ASTM Standard D2321 (as amended to date), Recommended Practice for Installation of Flexible Thermoplastic Sewer Pipe. The following sequence shall be used:
1. The pipe shall be laid in conformity to the prescribed line and grade, and each pipe length checked to the grade lines. Three consecutive points shown on the same rate of slope shall be used in common, in order to detect any variation from a straight grade. In case any such discrepancy exists, the work shall be stopped and the discrepancy immediately reported to the Department. In addition, a string line shall be used in the bottom of the trench to insure proper alignment and grade.
 2. Pipe shall be laid continuously upgrade, with the bell of the pipe forward. Each length of pipe shall be laid on a firm bed and shall have a true bearing for the entire length. No wedging or blocking up of the pipe will be permitted.
 3. Both bell and spigot shall be clean before the joint is made, and care shall be taken that nothing but the joint-making material enters the joints.
 4. When, for any reason, pipe laying is discontinued for an hour or more, the open end of each line shall be closed with a close-fitting stopper.
 5. The Contractor's attention is called to the required use of short lengths of sewer pipe to provide curves, flexibility, and prevent cracking or shearing failures. The use of short lengths of pipe is particularly required for, but not necessarily limited to, these locations: (1) inlets and outlets to all manholes; and (2) vertical and horizontal curvilinear sewers.
- E. Pipe to be Placed by Boring or Jacking. This work consists of placing cast iron pipe or other pipe of approved material, usually in a conductor pipe, under a paved roadway or railroad to a true line and grade as shown on the plans, by means of boring or jacking operations. The equipment and method of operation shall be approved by the Department before proceeding with the work, and shall meet the following requirements:

1. The excavation for the boring operation shall be kept to a minimum, but shall be of sufficient dimensions to satisfactorily complete the work. If so required, bracing and shoring shall be provided to adequately protect the workers and the roadway or railroad.
 2. The conductor pipe shall be placed closely behind and in conjunction with the boring operation. The bored hole shall be not more than 2-inches in diameter larger than the conductor pipe. Guide rails shall be accurately set to line and grade so as to achieve close adherence to the line and grade shown on the plans.
 3. The pipe to be placed inside the conductor pipe shall have non-rigid joints and shall be installed by the use of suitable centering devices. Sand, or other approved material, shall then be pumped into the conductor pipe to completely fill the annular space around the pipe for its full length.
- F. Trench Bedding and Backfill. Trench bedding and backfill shall be placed in the same manner as described for water mains in Chapter 6, including use of tracer wire and warning tape, except as follows: The non-detectable warning tape shall be 3-inch (3") wide polyethylene, APWA uniform color coded green, permanently printed "**CAUTION BURIED SEWER LINE BELOW.**"
- G. Manholes. Manholes shall be watertight structures constructed by placing precast concrete sections on a poured concrete base. Poured-in-place manholes shall not be used unless specifically called for in the Special Provisions. The following requirements shall apply:
1. Temporary covers of 3/8" steel plate of sufficient size to adequately cover the opening shall be placed on the cone until the pavement is completed. Suitable locating ribs shall be welded to the underside of the cover to hold it in place during the grading and paving operations.
 2. When adjusting an existing manhole to grade and the total depth of the throat from the top of the frame to the bottom of the throat exceeds 24-inches, the upper portion of the manhole shall be removed to the first full-size manhole section. The upper portion shall then be reconstructed as outlined above.
 3. Manholes shall be tested for water tight integrity either jointly with testing of sewer line or as separate units, in accordance with the Testing specifications, in section 7.2.4 below. The allowable leakage for one manhole shall not exceed one (1) gallon during a two-hour test period.
- H. Connection to Existing Manholes. Connections to existing manholes shall conform to the requirements of Standard Drawing S-1, and shall be made by coring a hole in the wall of the manhole, inserting the end of the pipe through the opening, flush with the inside wall, and packing the opening around the pipe with a non-shrink grout, thoroughly compacted to form a watertight connection. The grout shall be troweled smooth and flush with the interior surface of the manhole. A manhole adapter or water stop shall be placed on the pipe prior to placement in hole, and the pipe shall be installed as specified by the manufacturer. Channelizing of the flow through the manhole shall conform to the details shown on the Standard Drawings for new manholes. The Contractor shall notify the Department, 24 hours in advance, before any connection is made to existing structures. The Contractor shall schedule the work so that interruption of flow is held to a minimum.

- I. House Service Laterals. House service laterals shall be constructed as shown on the Standard Drawing S-3 and S-3a, and shall conform to the following requirements:
 1. If it becomes necessary to locate a house service lateral less than 100-feet from a well, it shall be constructed of a suitable material approved by the Public Works Department and the Public Health Department/ Environmental Health Services. Approved construction materials for sewer lines in critical zones are listed in Section 7.1.3 above.
 2. Whenever house service laterals are to be installed as part of the contract for the construction of the lateral sewer, the use of wye or tee saddles will not be permitted.
 3. That portion of any house service lateral to be placed under an existing curb and gutter and/or sidewalk shall be done by tunneling. Cutting of the existing curb and gutter and/or sidewalk will not be permitted.
 4. All house service laterals shall be considered as part of the lateral sewers for purposes of the hydrostatic test as set forth in Testing, below.
 5. The location of house service laterals shall be permanently indicated by embedding the letter "S" in the curb directly above the line. In new subdivisions when the house service laterals are installed, before the curb is constructed, it shall be the sewer contractor's responsibility to place the "S" in the curb after it is poured. When house service laterals are constructed in existing easements or streets where curbing does not exist, a 2-inches by 2-inches by 36-inches (2"x2"x36") construction grade redwood stake shall be driven in the ground to within two inches of the surface, directly above the service line at the property line and an "S" stamped in the top. Every house service lateral shall be so marked before final acceptance will be given of any job.

7.2.4 Testing

Prior to final approval, all sewer lines shall be cleaned and tested for leakage by standard hydrostatic or low pressure air test, for deflection by mandrel test, and for standing water/other debris by TV inspection. All cleaning and testing shall take place after all utilities are installed, and up to, but not including the final paving is completed. Any damage to the system during final paving and cleanup shall be corrected prior to final approval.

- A. Cleaning. Prior to acceptance of any sewer line by the Department, the sewer line shall be cleaned with a Wayne-type sewer cleaning ball under hydrostatic pressure. Any stoppage, dirt or foreign matter shall be removed from the lines. All materials and debris removed shall be collected and vacuumed out of the system at a manhole selected by the Department, and no debris shall be washed or otherwise deposited into the system.
- B. Hydrostatic Test Procedure. A section of sewer line shall be prepared for testing by plugging the upper side of the downstream manhole and all openings in the upstream manhole except the downstream opening. Where grades are slight, two or more sections between manholes may be tested at once. Where grades are steep, and excessive test heads would result by testing from one manhole to another, test tees the full size of the main shall be installed at intermediate points so the maximum head on any section under test will not exceed 12-feet. The following sequence shall be used:
 1. The section of sewer line prepared as above shall be tested by filling with water to an elevation 5-feet above the top of pipe at the upstream end of the test section, or 5-feet above the existing ground water elevation, whichever is greater. The water should be introduced into the test section four hours in advance of the official test period to allow

the pipe and joint material to become saturated. The pipe shall then be refilled to the original water level.

2. At the beginning of the test, the elevation of the water in the upper manhole shall be carefully measured from a point on the manhole rim. After a period of four hours, or less with the approval of the Department, the water elevation shall be measured from the same point on the manhole rim and the loss of water during the test period calculated. If this calculation is difficult, enough water shall be measured into the upper manhole to restore the water to the level existing at the beginning of the test, and the amount added taken as the total leakage.
 3. Should an initial test show excess leakage in a section of line, it is permissible to draw the water off and test the manholes that contained water. This test shall be made by plugging all the openings in the manholes and filling with water to the same elevation as existed during the test. The leakage from the manhole may be deducted from the total leakage of the test section in arriving at the test leakage. After the testing is complete, the manhole shall be waterproofed by grouting. Other approved waterproofing methods may be used if satisfactory to the Department.
 4. The allowable leakage in the test section shall not exceed 500 gallons per mile, per 24 hours, per inch diameter of pipe tested at the 5-foot test head.
 5. If it is necessary or desirable to increase the test head above 5-feet, the allowable leakage will be increased at the rate of 80 gallons for each foot of increase in head.
 6. Test sections showing leakage in excess of that allowed shall be repaired or reconstructed as necessary to reduce the leakage to that specified above, and the line retested, after a minimum period of 24 hours during which no additional water shall be introduced into the line.
- C. Air Test Procedure. Each section of sanitary sewer between two successive manholes shall be tested by plugging all pipe outlets with suitable test plugs. Air shall be slowly added until the internal pressure is raised to 4.0 pounds per square inch gauge (psig). The compressor used to add air to the pipe shall have a blowoff valve set at 5 psig to assure that at no time the internal pressure exceeds 5 psig. The internal pressure of 4 psig shall be maintained for at least two minutes to allow the air temperature to stabilize, after which the air supply shall be disconnected and the pressure allowed to decrease to 3.5 psig. The time in minutes that is required for the internal pressure to drop from 3.5 psig to 2.5 psig shall be measured and the results compared with the values tabulated below.

Table 7-3: Air Test Procedure

Pipe Diameter (inches)	Test Time (minutes)	Minimum Distance Between Manholes (feet)
8	4	340
10	5	260
12	6	230
15	7	170
18	9	150
21	10	120
24	11	110
27	13	100
30	14	90
33	16	80
36	17	70
39	18	60
42	19	50

The above tabulated values shall be used for the respective diameter pipes except where the distance between successive manholes is less than the above tabulated values, or the pipe diameter is less than 8-inches, in which case the following formula will be used to determine the test time:

$$(1) T = 0.000183 d^2 L$$

T = test time (minutes)

d = inside diameter of pipe (inches)

L = distance between successive manholes (feet)

If the pressure drop from 3.5 psig to 2.5 psig occurs in less time than the above tabulated or calculated values, the pipe shall be repaired and, if necessary, replaced and relaid at the Contractor's expense until the joints and pipe shall hold satisfactorily under this test. The Contractor shall furnish all labor, air test equipment, and all other materials for making the required air test at his or her own expense. After the sewer lines have been properly backfilled to a depth where additional backfilling will not disturb the position of the pipe, all or any sections that the Department may select may be tested. In no case shall the required minimum backfill be less than 4-feet above the top of the pipe before subjecting the line to the test. The Contractor shall supply all equipment, material and perform all tests as required prior to final approval.

- D. **Deflection Test.** Following the placement and densification of backfill, and prior to the placing of permanent pavement, all pipe shall be cleaned and then mandrel measured for obstructions (deflections, joint offsets, and lateral pipe intrusions). A rigid mandrel, with a circular cross-section having a diameter of at least 95% of the specified average inside diameter, shall be pulled through the pipe by hand. The minimum length of the circular portion of the mandrel shall be equal to the nominal diameter of the pipe. Unless otherwise permitted by the Department, any over-deflected pipe shall be uncovered and, if not

damaged, reinstalled. Damaged pipe lengths shall not be reinstalled, but shall be removed from the work site. Any pipe subjected to any method or process other than removal, which attempts – even successfully – to reduce or cure any deflection, shall be uncovered, removed from the work site, and replaced with new pipe.

The mandrel used shall be:

- effective length not less than its nominal diameter
- fabricated of steel
- fitted with pulling rings at each end
- furnished in a suitable carrying case labeled with the same data as stamped or engraved on the mandrel
- rigid, nonadjustable, with an odd number of legs (9 legs minimum)
- stamped or engraved, on some segment other than a runner, indicating the pipe material specification, nominal size, and mandrel OD

- E. TV Inspection. For wastewater collection systems operated by the County, a TV inspection and report shall be required prior to acceptance.
- F. Force Mains. Each section of pipe to be tested shall be slowly filled with water and all air expelled from the pipe. After the pipe has been filled, it shall be allowed to set for a period of not less than 24 hours. The pipe shall then be refilled to the original water level and subjected to a pressure of not less than 150 pounds per square inch, or the service pressure plus 50 pounds, whichever is greater, for a period of two hours. All exposed joints, bends, angles, and fittings shall be closely examined during the test. Any part of the line which proves to be defective shall be replaced and the line retested. The maximum allowable leakage shall not exceed 100 gallons per mile, per 24 hours, per inch of nominal diameter.

7.2.5 Replacement of Road Surfaces

- A. Timing of Pavement Replacement. Paving replacement shall not proceed until the full requirements of Installation and Testing, above, have been met to the satisfaction of the Department, but in no less than ten (10) days after backfilling has been completed.
- B. Pavement Replacement Requirements. The replacement of all pavement and shoulder surfaces shall be in conformance with Section 3.2.2 of these Public Improvement Standards, as to materials and methods of construction.

8. Utilities

8.1 Design Standards

8.1.1 General Provisions

- A. Improvements Required. In accordance with Section 21.03.010 (h) of the San Luis Obispo County Code, subdivision improvements shall include electrical, telephone, gas and cable television (where applicable). Other public improvements, as defined in this document, shall include utility improvements where required by conditions of approval or as determined necessary by the Department for reasons of public safety. Utility improvement requirements shall be based on the ultimate density determined from the general plan.
- B. Plan Requirements. The intent of these requirements is that sufficient utility detail be shown to permit the Department, or other appropriate agency, to locate all utilities when maintenance to the roads and other utilities in the public right-of-way or easements becomes necessary. The plans shall show the following utility information as a minimum:
1. Show all utilities in detail on the typical street sections. Include trench dimensions, depth, number of lines, and description of lines (line material, size, etc.)
 2. Show complete utility layout. Include line location, road crossings, junction boxes, manholes, service connections or stubouts, etc.
 3. The typical section shall be in accordance with Standard Drawing U-1.
 4. The following note shall be placed in an appropriate location relative to the utility improvements:

"All wire and gas utility connections, distribution lines, and service locations shown on these plans are for information only and should not be considered final design. Utility purveyors may need to alter their design from what is depicted herein based upon future design modifications or during construction. This may result in additional redesign costs or charges to the owner for this work.


No revisions to what is depicted herein shall be constructed without the prior approval of County Public Works. No above-ground facilities shall be located where they block the accessible path of travel or intersection or driveway sight distance.

Prior to final project acceptance it will be the owner's responsibility to verify final utility alignments and ensure that adequate easements for such facilities are provided."
- C. Underground Installation Required. Section 21.03.010 (h) requires that all public utilities, including cable television systems, shall be placed underground for all parcel maps and tract maps located within urban and village areas (as defined in the land use element of the county general plan). The requirement to place utilities underground shall apply to all new facilities, as well as all existing facilities interior to the property being developed. Existing facilities on the perimeter of a development site shall be placed underground, as determined feasible by the Department.

- D. Sawcut and Pavement Replacement. Any installations requiring trenching or excavation into existing paved areas, shall comply with the requirements of Section 3.2.2 F of these Standards for sawcut and pavement replacement.
- E. Service Extensions Required. All utilities shall be installed with service laterals to serve all new lots being created in any subdivision project.
- F. Acceptance by Utility. Utility improvements shall not be accepted as complete by the County, until written correspondence has been received from each utility providing service to the subdivision or land use permit project, indicating that their respective facilities are completed to their satisfaction and “ready for service,” or that sufficient financial arrangements have been made to assure same.

Appendix D – Overflow Emergency Response Plan

- 1) Emergency Operating Procedures
- 2) Management Procedures

Emergency Operating Procedure  Cuesta Community College District		Document No: SS-EOP-00
Title: PREFACE: EOP PURPOSE, LOCATION, SCOPE, AND DEFINITIONS		Revision: 0
Issued by: Terry Reece <i>Director of Facilities Services,</i> Cuesta Community College District	Prepared by: Bill Callahan <i>Director of Public Works Administration,</i> Wallace Group	Page: 1 of 9 Effective Date: 3/31/2016

1. Purpose

The purpose of this procedure is to provide standardized information, including the location, scope and availability, and definitions, applicable to all of the Cuesta Community College District's (District) Emergency Operating Procedures (EOPs).

ID No.:	SS-EOP-00
Rev. No.:	0
Date:	3/31/2016
Page:	2 of 9

2. Location

A SSO, which requires the District's EOPs, can occur at any location within District's service area, which is illustrated in Figure 0-1.



Figure 0-1: District Service Area

ID No.:	SS-EOP-00
Rev. No.:	0
Date:	3/31/2016
Page:	3 of 9

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 2013-0058-EXEC for Order No. 2006-0003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems," establishes 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 to develop and implement an OERP and the associated procedures that identify measures to protect public health and the environment.

ID No.:	SS-EOP-00
Rev. No.:	0
Date:	3/31/2016
Page:	4 of 9

4. Definitions

Term	Definition
Business Hours	The Cuesta Community College District Facilities Services Office business hours are 8:00 AM – 5:00 PM, Monday through Friday, excluding 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 Governor's Office of Emergency Services (Cal OES)	<p>Cal OES was established on July 1, 2013 and merged the former California Emergency Management Agency (Cal EMA) and the Public Safety Communications Office (PSCO). 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 OES 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>Discharges of untreated or partially treated wastewater of any volume resulting from a Enrollee's sanitary sewer system failure or flow condition that:</p> <ol style="list-style-type: none"> 1. Reach surface water and/or reach a drainage channel tributary to a surface water; or 2. Reach a Municipal Separate Storm Sewer System (MS4) and are not fully captured and returned to the sanitary sewer system or not otherwise capture and disposed of properly. Any volume of wastewater not recovered from the MS4 is considered to have reached surface water unless the storm drain system discharges to a dedicated storm water or groundwater infiltration basin (e.g., infiltration pit, percolation pond, etc.).
Category 2 SSO	Discharges of untreated or partially treated wastewater of 1,000 gallons or greater resulting from a Enrollee's sanitary sewer system failure or flow condition that do not reach surface water, a drainage channel, or a MS4 unless the entire SSO discharged to the storm drain system is fully recovered and disposed of properly.

ID No.:	SS-EOP-00
Rev. No.:	0
Date:	3/31/2016
Page:	5 of 9

Term	Definition
Category 3 SSO	All other discharges of untreated or partially treated wastewater resulting from a Enrollee's sanitary sewer system failure or flow condition, which are not Category 1 SSOs.
Collection System	Generic term for any system of pipes or sewer lines used to convey wastewater to a treatment facility.
Drainage Channel	A man-made canal used to transport storm water as part of a municipal separate storm sewer system, or an intermittent or perennial stream bed.
Data Submitter	<p>A Data Submitter is any individual authorized by the LRO to enter data into CIWQS, the online SSO database, on behalf of the Enrollee. In order for a person to be officially designated as a Data Submitter, they must register as a Data Submitter through CIWQS by clicking on the "User Registration" button at the following link: http://ciwqs.waterboards.ca.gov/. The person registering as a Data Submitter must complete the information requested in the CIWQS User Registration process, and can submit the form electronically. The CIWQS Help Center will send an email notification with the LRO's user name and password after the registration is approved.</p> <p>The Data Submitter is the only person, who can use their CIWQS username and password. Allowing parties other than the Data Submitter to access CIWQS and submit information on his or her behalf is illegal and is considered fraud. Persons involved in such fraudulent activities can be subject to criminal prosecution.</p>
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.
Geographical Positioning System (GPS)	A global system of United States navigational satellites developed to provide precise positional (latitude and longitude) and velocity data.
Fecal Indicator Bacteria (FIB)	<p>Bacteria, such as total coliform, fecal coliform, E. Coli 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.</p>

Term	Definition
	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.
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 Enrollee 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"> 1. The authorization is made in writing by a LRO; and 2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity. <p>The LRO is the only person, who can sign or certify all applications, reports, and other information required by the WDRs, SWRCB, or RWQCB. Allowing parties other than the LRO or a duly authorized representative to access CIWQS and submit information on his or her behalf is illegal and is considered fraud. Persons involved in such fraudulent activities can be subject to criminal prosecution.</p> <p>In order for a person to be officially designated as a LRO, they must register as a LRO through CIWQS by clicking on the "User Registration" button at the following link: http://ciwqs.waterboards.ca.gov/. The person registering as a LRO must complete the information requested in the CIWQS User Registration process, and print, sign, and mail the completed form to CIWQS Registration, P.O. Box 671, Sacramento, CA 95812. The CIWQS Help Center will send an email notification with the LRO's user name and password after the registration is approved.</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 2013-0058-EXEC, which is the amended MRP for WDR Order No. 2006-0003-DWQ. Order No. 2006-DWQ is defined below under WDR.
Municipal Separate Storm Sewer System (MS4)	<p>As defined by 40 CFR 122.26(b)(8), a MS4 is "a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):</p> <ol style="list-style-type: none"> (i) Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created to or pursuant to state law) including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the Clean Water Act that discharges into waters of the United States.


Term	Definition
	<ul style="list-style-type: none"> (ii) Designed or used for collecting or conveying storm water; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2."
Private Lateral Sewage Discharge (PLSD)	Discharges of untreated or partially treated wastewater resulting from blockages or other problems within a privately owned sewer lateral connected to the Enrollee's sanitary sewer or from other private sewer assets.
Publicly Owned Treatment Works (POTW)	As defined by 40 CFR 122.2, a POTW is "a treatment works as defined by Section 212 of the [Clean Water] Act, which is owned by a State or municipality (as defined by Section 502(4) of the [Clean Water] Act). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term [POTW] also means the municipality as defined in Section 502(4) of the [Clean Water] Act, which has jurisdiction over the indirect discharges to and the discharges from such a treatment works."
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>Cuesta College 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"> 1. Overflows or releases of untreated or partially treated wastewater that reach waters of the United States; 2. Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and 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. <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	Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect and

ID No.:	SS-EOP-00
Rev. No.:	0
Date:	3/31/2016
Page:	8 of 9

Term	Definition
System	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.
Cuesta Community College District (District)	District provides sewer collection system management, engineering, operation, maintenance and emergency response services for the District service area. Cuesta is governed by a six-member Board of Trustees.
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.
Wallace Group	Wallace Group is contracted by the District to provide engineering and environmental compliance services.
Waste Discharge Requirements	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

ID No.:	SS-EOP-00
Rev. No.:	0
Date:	3/31/2016
Page:	9 of 9

Term	Definition
(WDR)	<p>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 2013-0058-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>

Emergency Operating Procedure		Document No:
 Cuesta Community College District		SS-EOP-01
Title:		Revision:
OVERFLOW EMERGENCY RESPONSE PLAN		0
Issued by:	Prepared by:	Page:
Terry Reece <i>Director of Facilities Services,</i> Cuesta Community College District	Bill Callahan <i>Director of Public Works</i> <i>Administration, Wallace Group</i>	1 of 7
		Effective Date: 3/30/2016

1. Health and Safety Warnings

1. All SSO response activities must be conducted in a safe and effective manner that protects Cuesta Community College District (District) Staff, the District's contractors, the public, and the environment.
2. District Staff are required to follow the District's safety practices and procedures. 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. Cuesta Community College's Illness and Injury Prevention Program (IIPP); and
 - d. Cuesta Community College 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

ID No.:	SS-EOP-01
Rev. No.:	0
Date:	3/30/2016
Page:	2 of 7

2. Cautions Employed by Responder

1. Ensure that all equipment is used correctly and as outlined in the District's procedures and policies.
2. Ensure that the SSO response activities are sufficiently documented through written documentation and photographs.

3. Interferences

1. In order for the OERP and associated Emergency Operating Procedures (EOPs) to be effective, they must be used and reviewed by District 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 District's procedures and policies 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, District Staff must ensure that the SSO response activities are sufficiently documented through written documentation and photographs.

4. Personnel Qualifications and Responsibilities

1. Director of Facilities Services
 - a. Responsible for monitoring the implementation of the OERP.
 - b. Responsible for the implementation of the OERP.
 - c. Responsible for training all District Staff and contractors responsible for SSO Response are trained on this EOP annually.
 - d. Responsible for managing, maintaining, and updating this EOP.
2. District Staff and Contractors Responsible for SSO Response
 - a. Required to be trained on this EOP annually.

ID No.:	SS-EOP-01
Rev. No.:	0
Date:	3/30/2016
Page:	3 of 7

5. Equipment and Supplies

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

6. Procedure

The District's Facilities Services Office (805) 546-3283 is open and can receive notifications of SSOs from 8:00 AM to 5:00 PM, Monday through Friday. After hours, on weekends, and on holidays, District Staff coordinate SSO notification efforts and on-call District Staff respond to SSOs.

ID No.:	SS-EOP-01
Rev. No.:	0
Date:	3/30/2016
Page:	4 of 7

Figure 1-2 illustrates the process flow, which must be observed and followed when a SSO occurs:

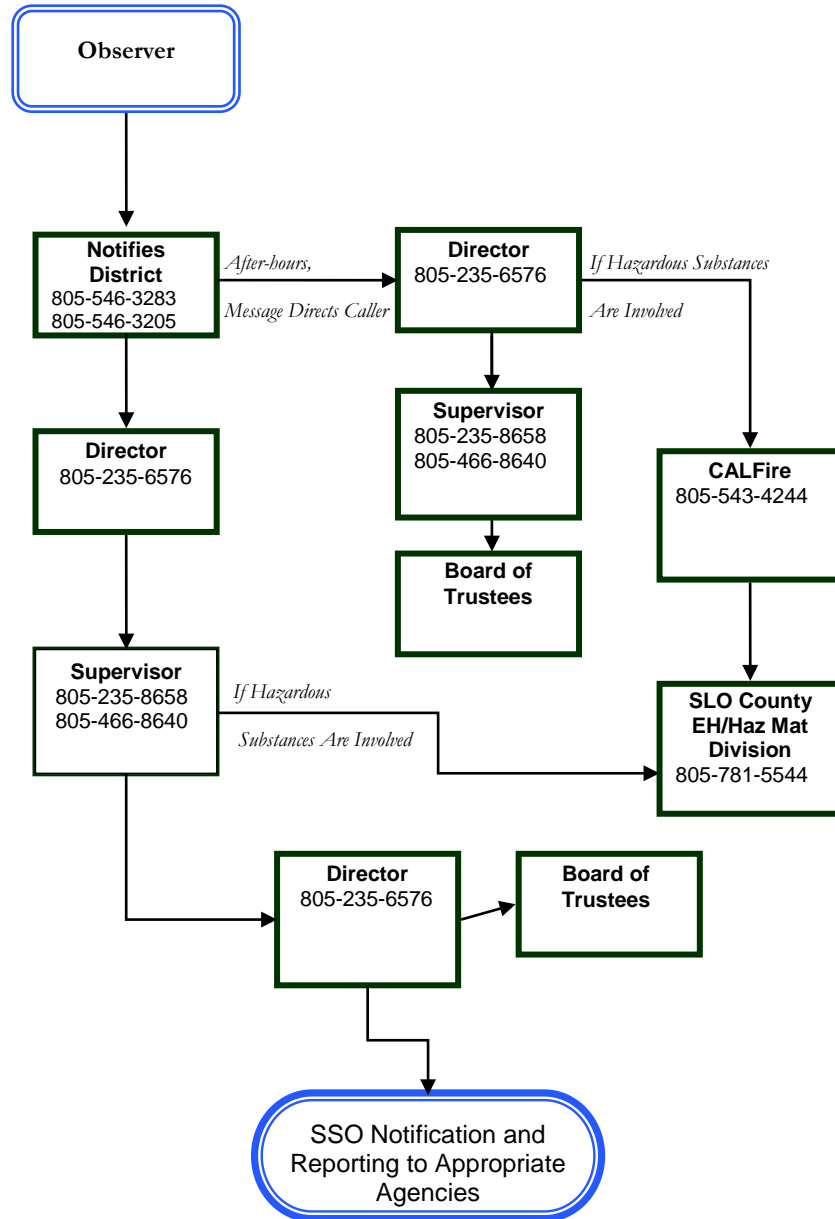


Figure 1-2: SSO Response Chain of Command

ID No.:	SS-EOP-01
Rev. No.:	0
Date:	3/30/2016
Page:	5 of 7

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

1. SS-EOP-00: Preface – EOP Purpose, Location, Scope and Definitions
2. SS-EOP-01: Overflow Emergency Response Plan
3. SS-EOP-02: SSO Notification and Reporting
4. SS-EOP-03: SSO Traffic and Crowd Control
5. SS-EOP-04: SSO Volume Estimation
6. SS-EOP-05: SSO Mitigation and Cleanup
7. SS-EOP-06: SSO Surface Water Closure
8. SS-EOP-07: SSO Water Quality Monitoring
9. SS-EOP-08: SSO Response Documentation and Records
10. SS-EOP-09: SSO Training Requirements

Each of these procedures gives specific direction for activities required in SSO response. District 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 District'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.

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

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

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

Associated EOP: *SS-EOP-03: Traffic and Crowd Control*

District Staff takes all reasonable steps to contain sewage and to prevent sewage discharges to surface waters. Upon arrival to the SSO site, District 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 District 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. After the SSO is contained, Staff will work to begin removing the main stoppage and return normal flow to the system.

ID No.:	SS-EOP-01
Rev. No.:	0
Date:	3/30/2016
Page:	6 of 7

Cleanup of raw sewage is initiated at the same time as vacuuming up the water and any solid material.

Associated EOP: *SS-EOP-05: SSO Mitigation and Cleanup*

Based on the location and type of SSO, District 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 Sombic9 will be completed.

Associated EOPs: *SS-EOP-02: SSO Notification and Reporting*
SS-EOP-04: SSO Volume Estimation
SS-EOP-08: SSO Response Documentation and Records

In the event that a SSO comes into contact with surface water bodies in an estimated volume of 50,000 gallon or greater, testing of those bodies will be completed to determine the level of contamination.

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

The Director of Facilities Services and Maintenance Staff are responsible for SSO mitigation, documentation, reporting, and follow-up.

Associated EOPs: *SS-EOP-02: SSO Notification and Reporting*
SS-EOP-05: SSO Mitigation and Cleanup
SS-EOP-08: SSO Response Documentation and Records

After the District responds to and mitigates a SSO, the Director of Facilities Services is responsible for reviewing the District's response to the SSO and the utilization and effectiveness of the District'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. District Staff and any contract staff involved in SSO response activities must be trained on any revised or updated EOPs. District 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*

ID No.:	SS-EOP-01
Rev. No.:	0
Date:	3/30/2016
Page:	7 of 7

7. 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.

8. Quality Control and Quality Assurance


1. The Director of Facilities Services is responsible for the implementation and review of the programs and procedures contained in the OERP.
2. The Director of Facilities Services is responsible for monitoring the implementation and review of the programs and procedures contained in the OERP.
3. The Director of Facilities Services is responsible for ensuring that the OERP is being maintained, implemented, and trained on by District Staff.

9. References

1. The District's EOPs
2. WDR: Order No. 2006-0003-DWQ
3. Adopted Amending MRP for the WDR: Order No. WQ 2013-0058-EXEC

10. Attachments

1. This section is not applicable to this EOP

Emergency Operating Procedure		Document No:
 Cuesta Community College District		SS-EOP-02
Title:		Revision:
SSO NOTIFICATION AND REPORTING		0
Approved by:	Prepared by:	Page:
Terry Reece <i>Director of Facilities Services,</i> Cuesta Community College District	Bill Callahan <i>Director of Public Works</i> <i>Administration, Wallace Group</i>	1 of 12
		Effective Date:
		3/30/2016

1. Health and Safety Warnings

1. This section is not applicable to this EOP.

2. Cautions

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

3. 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, District Staff must ensure that the SSO response activities are sufficiently documented through written documentation and photographs.

4. Personnel Qualifications and Responsibilities

1. Director of Facilities Services/LRO
 - a. Responsible for overseeing all of the activities associated with this EOP.
 - b. Required to train on this EOP annually.
 - c. Responsible for assisting maintenance supervisors in overseeing all of the activities associated with this EOP.
 - d. Responsible for ensuring that training is conducted with maintenance staff and contractors responsible for SSO response on this EOP.
 - e. Responsible for maintaining and updating this EOP.
 - f. Responsible for assisting maintenance staff with SSO notifications, reporting, training, and records.

ID No.:	SS-EOP-02
Rev. No.:	0
Date:	3/30/2016
Page:	2 of 12

5. Equipment and Supplies

1. Phone – Cell and/or Landline
2. Pen
3. Computer
4. Most Current Cuesta College After Hours Stand By List – Every Staff Member has a Copy of this List and the List is not attached as staff contact information is confidential.
5. Cuesta SSO Incident Report Form
6. Water Quality Sampling Information (SS-EOP-07)

6. Procedure

NOTIFICATIONS FOR DISTRICT RESPONSE TO SSOs

1. SSO Discovered by a Member of the Public
 - a. Reported to District
 1. The District receives telephone calls at one main telephone number during business hours (546-3283) and the campus police (546-3100 x3205) after hours. The District publishes both telephone numbers on their answering service, in the local telephone books and on the Cuesta College website (<http://www.cuesta.edu/maintenance/>).
 2. The first responder goes to the SSO location and confirms that a SSO is occurring. If the SSO is occurring, the first responder contacts the Director of Facilities Maintenance to inform staff of the SSO and initiates the SSO Mitigation and Cleanup EOP (SS-EOP-05). If a SSO is not occurring, the first responder calls the Director of Facilities Services to cancel the SSO response.
 3. If District Maintenance Staff needs additional assistance during business hours they contact:
 - a. Director of Facilities Maintenance (805) 546-3283.
2. SSO Discovered by District Maintenance Staff
 1. The first responder contacts the Director of Facilities Maintenance to inform staff of the SSO and initiates the SSO Mitigation and Cleanup EOP (SS-EOP-05).
 2. If District Maintenance Staff needs additional assistance during business hours they contact:
 - a. Director of Facilities Maintenance (805) 546-3283.

ID No.:	SS-EOP-02
Rev. No.:	0
Date:	3/30/2016
Page:	3 of 12

Notify Regulatory Agencies of the SSO

1. A summary table of which regulatory agencies to call and the required notification deadlines for each SSO category and each agency's contact information is provided below:

- a. Category 1 SSO

- i. For discharges of sewage that results in a discharge to a drainage channel or a surface water **greater than or equal to an estimated SSO volume of 1,000 gallons**, District shall, as soon as possible, but no later than two (2) hours after becoming aware of the discharge, notify:

Agency	Contact Information		Call Within
California Office of Emergency Services (Cal OES)	Office:	(800) 852-7550	2 Hours

- ii. 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 **greater than or equal to 1,000 gallons**, District shall submit (fax or email) to the Central Coast Regional Water Quality Control Board a certification that Cal OES has been notified of the discharge.

- b. Category 2 and 3 SSOs and PLSDs:

- i. The District should contact the following agencies for a Category 2 and 3 SSOs and PLSD within twenty-four (24) hours:

Agency	Contact Information		Call Within
Regional Water Quality Control Board (RWQCB)	Office:	(805) 549-3147	24 hours

2. Any notifications made must be recorded on the Cuesta SSO Field Response Checklist.

REPORTING FOR DISTRICT SSOs

Category 1 SSOs

1. Draft Category 1 SSO Report

- a. The Draft Category 1 SSO Report must be completed in CIWQS as soon as possible, but no later than three (3) business days after the District is made aware of the SSO.

ID No.:	SS-EOP-02
Rev. No.:	0
Date:	3/30/2016
Page:	4 of 12

- b. The Draft Category 1 SSO Report must include all of the following information:
- i. SSO Contact Information: Name and telephone number of the District contact person who can answer specific questions about the SSO being reported.
 - ii. SSO Location Name.
 - iii. Location of SSO by entering GPS coordinates.
 1. If a single overflow event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the SSO appearance point explanation field.
 - iv. Whether the SSO reached surface water, a drainage channel, or entered and was discharged from a drainage structure.
 - v. Whether the SSO reached a municipal separate storm drain system.
 - vi. Whether the total SSO volume that reached a municipal separate storm drain system was fully recovered.
 - vii. Estimated SSO volume, inclusive of all discharge point(s).
 - viii. Estimated SSO volume that reached surface water, drainage channel, or was not recovered from a storm drain.
 - ix. Estimated SSO amount recovered (if applicable).
 - x. Number of SSO appearance point(s).
 - xi. Description and location of SSO appearance point(s).
 1. If a single sanitary sewer system failure results in multiple SSO appearance points, each appearance point must be described.
 - xii. SSO start date and time.
 - xiii. Date and time the enrollee was notified of, or self-discovered, the SSO.
 - xiv. Estimated operator arrival time.
 - xv. For spills greater than or equal to 1,000 gallons, the date and time Cal OES was called.
 - xvi. For spills greater than or equal to 1,000 gallons, the Cal OES control number.
- c. Use Attachment 1 of this EOP for assistance with entering this information into CIWQS.
- d. If CIWQS is not available, the aforementioned information must be faxed to RWQCB at (805) 543-0397.
2. Final Category 1 SSO Report
- a. The final Category 1 SSO Report shall be certified through CIWQS within fifteen (15) calendar days off the end date of the SSO.
 - b. In addition to the information required in the Draft Category 1 SSO Report, the Final Category 1 SSO Report must include all of the following information:
 - i. Description of SSO destination(s).
 - ii. SSO end date and time.
 - iii. SSO causes (mainline blockage, roots, etc.).
 - iv. SSO failure point (main, lateral, etc.).
 - v. Whether the spill was associated with a storm event.

ID No.:	SS-EOP-02
Rev. No.:	0
Date:	3/30/2016
Page:	5 of 12

- vi. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the overflow; and a schedule of major milestones for those steps.
 - vii. Description of spill response activities.
 - viii. Spill response completion date.
 - ix. Whether there is an ongoing investigation, the reasons for the investigation and the expected date of completion.
 - x. Whether a beach closure occurred or may have occurred as a result of the SSO.
 - xi. Whether health warnings were posted as a result of the SSO.
 - xii. Name of the beach(es) closed and/or impacted. If no beach was impacted, NA must be selected.
 - xiii. Name of surface water(s) impacted.
 - xiv. If water quality samples were collected, identify parameters the water quality samples were analyzed for. If no samples were taken, NA shall be selected.
 - xv. If water quality samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA shall be selected.
 - xvi. Description of the methodology(ies) and type of data relied upon for estimations or the SSO volume discharged and recovered.
 - xvii. SSO Certification: Upon SSO Certification, CIWQS will issue a final SSO identification (ID) number.
 - 1. Save this number for the District's records.
 - c. Use Attachment 1 of this EOP for assistance with entering this information into CIWQS.
 - d. If CIWQS is not available, the aforementioned information must be faxed to RWQCB at (805) 543-0397.
 - e. Upon certifying the SSO Report, save a pdf and hard copy of the Final Category 1 SSO Report.
3. SSO Technical Report
- a. The District shall submit a SSO Technical Report in CIWQS within forty-five (45) calendar days of the SSO end date for any SSO in which 50,000 gallons or greater are spilled to surface waters.
 - b. The SSO Technical Report shall include:
 - i. Causes and Circumstances of the SSO
 - 1. Complete and detailed explanation of how and when the SSO was discovered.
 - 2. Diagram showing the SSO failure point, appearance point(s), and final destination(s).
 - 3. Detailed description of the methodology employed and available data used to calculate the volume of the SSO and, if applicable, the SSO volume recovered.
 - 4. Detailed description of the cause(s) of the SSO.
 - 5. Copies of original field crew records used to document the SSO.
 - 6. Historical maintenance records for the failure location.

ID No.:	SS-EOP-02
Rev. No.:	0
Date:	3/30/2016
Page:	6 of 12

- ii. District's Response to the SSO
 - 1. Chronological narrative description of all actions taken by the District to terminate the spill.
 - 2. Explanation of how the SSMP Overflow Emergency Response Plan was implemented to respond to and mitigate the SSO.
 - 3. Final corrective action(s) completed and/or planned to be completed, including a schedule for actions not yet completed.
- iii. Water Quality Monitoring
 - 1. Description of all water quality sampling activities conducted including analytical results and evaluation of the results.
 - 2. Detailed location map illustrating all water quality sampling points.
- c. If CIWQS is not available, the aforementioned information must be faxed to RWQCB at (805) 543-0397.

Category 2 SSOs

- 3. Draft Category 2 SSO Report
 - a. The Draft Category 1 SSO Report must be completed in CIWQS as soon as possible, but no later than three (3) business days after the District is made aware of the SSO.
 - b. The Draft Category 2 SSO Report must include all of the following information:
 - i. SSO Contact Information: Name and telephone number of the District contact person who can answer specific questions about the SSO being reported.
 - ii. SSO Location Name.
 - iii. Location of SSO by entering GPS coordinates.
 - 1. If a single overflow event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the SSO appearance point explanation field.
 - iv. Whether the SSO reached surface water, a drainage channel, or entered and was discharged from a drainage structure.
 - v. Whether the SSO reached a municipal separate storm drain system.
 - vi. Whether the total SSO volume that reached a municipal separate storm drain system was fully recovered.
 - vii. Estimated SSO volume, inclusive of all discharge point(s).
 - viii. Estimated SSO volume that reached surface water, drainage channel, or was not recovered from a storm drain.
 - ix. Estimated SSO amount recovered (if applicable).
 - x. Number of SSO appearance point(s).
 - xi. Description and location of SSO appearance point(s).
 - 1. If a single sanitary sewer system failure results in multiple SSO appearance points, each appearance point must be described.
 - xii. SSO start date and time.

ID No.:	SS-EOP-02
Rev. No.:	0
Date:	3/30/2016
Page:	7 of 12

- xiii. Date and time the enrollee was notified of, or self-discovered, the SSO.
 - xiv. Estimated District Staff arrival time.
 - c. Use Attachment 1 of this EOP for assistance with entering this information into CIWQS.
 - d. If CIWQS is not available, the aforementioned information must be faxed to RWQCB at (805) 543-0397.
- 4. Final Category 2 SSO Report
 - a. The final Category 1 SSO Report shall be certified through CIWQS within fifteen (15) calendar days off the end date of the SSO.
 - b. In addition to the information required in the Draft Category 2 SSO Report, the Final Category 2 SSO Report must include all of the following information:
 - i. Description of SSO destination(s).
 - ii. SSO end date and time.
 - iii. SSO causes (mainline blockage, roots, etc.).
 - iv. SSO failure point (main, lateral, etc.).
 - v. Whether the spill was associated with a storm event.
 - vi. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the overflow; and a schedule of major milestones for those steps.
 - vii. Description of spill response activities.
 - viii. Spill response completion date.
 - ix. Whether there is an ongoing investigation, the reasons for the investigation and the expected date of completion.
 - x. SSO Certification: Upon SSO Certification, CIWQS will issue a final SSO identification (ID) number.
 - 1. Save this number for the District's records.
 - c. Use Attachment 1 of this EOP for assistance with entering this information into CIWQS.
 - d. If CIWQS is not available, the aforementioned information must be faxed to RWQCB at (805) 543-0397.
 - e. Upon certifying the SSO Report, save a pdf and hard copy of the Final Category 1 SSO Report.

Category 3 SSOs

1. All Category 3 SSOs shall be reported in CIWQS and certified within thirty (30) calendar days after the end of the calendar month in which the SSO occurred.
2. The Category 3 SSO Report must include all of the following information:
 - a. SSO Contact Information: Name and telephone number of District contact person who can answer specific questions about the SSO being reported.
 - b. SSO Location Name.
 - c. Location of SSO by entering GPS coordinates.
 - i. If a single overflow event results in multiple appearance points, provide GPS coordinates for the appearance point closest to the failure point and describe each additional appearance point in the SSO appearance point explanation field.

ID No.:	SS-EOP-02
Rev. No.:	0
Date:	3/30/2016
Page:	8 of 12

- d. Whether the SSO reached surface water, a drainage channel, or entered and was discharged from a drainage structure.
 - e. Whether the SSO reached a municipal separate storm drain system.
 - f. Whether the total SSO volume that reached a municipal separate storm drain system was fully recovered.
 - g. Estimated SSO volume, inclusive of all discharge point(s).
 - h. Estimated SSO volume that reached surface water, drainage channel, or was not recovered from a storm drain.
 - i. Estimated SSO amount recovered (if applicable).
 - j. Number of SSO appearance point(s).
 - k. Description and location of SSO appearance point(s).
 - i. If a single sanitary sewer system failure results in multiple SSO appearance points, each appearance point must be described.
 - l. SSO start date and time.
 - m. Date and time the enrollee was notified of, or self-discovered, the SSO.
 - n. Estimated operator arrival time.
 - o. Description of SSO destination(s).
 - p. SSO end date and time.
 - q. SSO causes (mainline blockage, roots, etc.).
 - r. SSO failure point (main, lateral, etc.).
 - s. Whether the spill was associated with a storm event.
 - t. Description of spill corrective action, including steps planned or taken to reduce, eliminate, and prevent reoccurrence of the overflow; and a schedule of major milestones for those steps.
 - u. SSO Certification: Upon SSO Certification, CIWQS will issue a final SSO identification (ID) number.
 - i. Save this number for the District's records.
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, save a pdf and hard copy of the Final Category 1 SSO Report.

Private Lateral Sewage Discharges

1. Private Lateral Sewage Discharges (PLSDs) may be voluntarily reported in CIWQS at the District's discretion, but it is not required.
 - a. For any PLSD greater than or equal to 1,000 gallons regardless of the spill destination, the District is encouraged to file a spill report as required by Health and Safety Code Section 5410 et. seq. and Water Code Section 13271, or notify the responsible party that notification and reporting should be completed as specified above and required by State law.
2. If a PLSD is reported in CIWQS, the District must identify the sewage discharge as occurring and caused by a private sanitary sewer system asset and should identify a responsible party (other than the District), if known.
3. Certification of PLSD reports is not required.

ID No.:	SS-EOP-02
Rev. No.:	0
Date:	3/30/2016
Page:	9 of 12

4. If the District wishes to report a PLSD and CIWQS is not available, the report must be faxed to RWQCB at (805) 543-0397.
5. If the District reports a PLSD and chooses to certify the report in CIWQS, 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 District must certify that there were no spills in CIWQS.
 - a. If there are no SSOs during a calendar month, but the District reported a PLSD, the District shall still certify a “No Spill” certification statement for that month.
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.

ID No.:	SS-EOP-02
Rev. No.:	0
Date:	3/30/2016
Page:	10 of 12

Amending SSOs

1. The District may update or add additional information to a certified SSO report within 120 calendar days after the SSO end date by amending the report or by adding an attachment to the SSO report in CIWQS.
2. If a SSO Report needs to be amended after this 120 calendar deadline, the District may contact the SSO Program Manager, Victor Lopez, at Victor.Lopez@waterboards.ca.gov and request to amend the SSO Report.
 - a. The District is required to submit justification for why the additional information was not available prior to the end of the 120 calendar day deadline with this request.

7. Data and Records Management

1. SSO Notification Information
 - a. District Staff is responsible for documenting the date and time the notification was made and the name and contact information of the person making the notification on the SSO Response Field Checklist, which is Attachment 1 of SS-EOP-05.
 - b. If 9-1-1, District Police, or the Fire Department is notified, these emergency responders are responsible for documenting the date and time the notification was made and for attempting to obtain the name and contact information of the person making the notification.
 - i. The Director of Facilities Services is responsible for acquiring this information for use in estimating the SSO volume when necessary.
2. For a SSO Category 1 Spill greater than or equal to 1,000 gallons, District Staff is required to call Cal OES within 2 hours of becoming aware of the SSO and obtain a Cal OES Control Number.
 - a. District Staff records the Cal OES number and the date and time Cal OES was called on the Cuesta SSO Field Response Checklist.
3. All required records shall be maintained for a minimum of five (5) years and shall be made available for review by the SWRCB and RWQCB during an onsite inspection or through an information request.
4. Records documenting compliance with all provisions of the WDR and MRP including any required records generated by contractors assisting in SSO response.
5. SSO records, which must be retained for each SSO event, include, but are not limited to:
 - a. Complaint records documenting how the District responded to all notifications of possible or actual SSOs, both during and after business hours, including complaints that do not result in SSOs. Each complaint record shall, at a minimum, include the following information:
 - i. Date, time, and method of notification.
 - ii. Date and time the complainant or informant first noticed the SSO.
 - iii. Narrative description of the complaint, including any information the caller can provide regarding whether or not the complainant or

ID No.:	SS-EOP-02
Rev. No.:	0
Date:	3/30/2016
Page:	11 of 12

informant reporting the potential SSO knows if the SSO has reached surface waters, drainage channels, or storm drains.

- iv. Follow-up return contact information for complainant or informant for each complaint received, if not reported anonymously.
- v. Final resolution of the complaint.
- b. Records documenting steps and/or remedial actions undertaken by the District, using available information, to comply with WDR Section D.7, which states:

“When a sanitary sewer overflow occurs, the Enrollee shall take all feasible steps and necessary remedial actions to 1) control or limit the volume of untreated or partially treated wastewater discharged, 2) terminate the discharge, and 3) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.

The Enrollee shall implement all remedial actions to the extent they may be applicable to the discharge and not inconsistent with an emergency response plan, including the following:

- (i) Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure;
 - (ii) Vacuum truck recovery of sanitary sewer overflows and wash down water;
 - (iii) Cleanup of debris at the overflow site;
 - (iv) System modifications to prevent another SSO at the same location;
 - (v) Adequate sampling to determine the nature and impact of the release; and
 - (vi) Adequate public notification to protect the public from exposure to the SSO.”
- c. Records documenting how all estimate(s) of volume(s) discharged and, if applicable, volume(s) recovered were calculated.
 - d. Records of Certified SSO Reports as submitted to CIWQS.
 - 6. Electronic monitoring records relied upon for documenting SSO events and/or estimating the SSO volume discharged, including, but not limited to records from:
 - a. Supervisory Control and Data Acquisition (SCADA) systems.
 - b. Alarm systems.
 - c. Flow monitoring device(s) or other instrument(s) used to estimate wastewater levels, flow rates, and/or volumes.
 - 7. 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;

ID No.:	SS-EOP-02
Rev. No.:	0
Date:	3/30/2016
Page:	12 of 12

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

8. Quality Control and Quality Assurance

- 1. The Facilities Services Director is responsible for reviewing all notification information and records.
- 2. The Data Submitter will 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.

9. References

- 1. SS-EOP-02: SSO Notification and Reporting Requirements
- 2. SS-EOP-05: SSO Mitigation and Cleanup
- 3. Adopted Amended MRP for the WDR: Order No. WQ 2013-0058-EXEC
- 4. State Water Resources Control Board, "Enrollee's Guide to the SSO Database Sanitary Overflow Reduction Program." August 2013.

10. Attachments




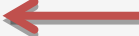
- 1. SSO Notification and Reporting Flow Chart
- 2. Reporting SSOs in CIWQS



SSO REPORTING ATTACHMENT 1: Reporting SSOs in CIWQS

2.3 SSO REPORTS

When you log on to SSO Database to report a sanitary sewer overflow (SSO) on the main menu you will click on the “SSO-Sanitary Sewer Overflows” link, then select your sanitary sewer system (if your agency owns more than one), next you are going to click on the “Reporting New SSO” link.

- [Collection System Questionnaire](#) 
Pertinent information regarding your collection system.
- [Sewer System Management Plan \(SSMP\) Certification](#) 
Certify SSMP completion
- [Reporting New SSO](#)  
Submit Individual SSO Reports.

This will bring you to Screen 1, which is where you fill in basic data about the SSO. On this screen you will enter some basic spill data and the SSO Database will then direct you to the appropriate spill data entry form (i.e., Category 1, Category 2, or Category 3). Figure 1 below is a flow chart illustrating how the categorization is determined. The volumes used by the SSO Database will be shown at the bottom of the page. **NOTE, all SSOs are required to be reported to the SSO database regardless of the SSO volume.**

You should note that the SSS WDRs defines an SSO as an overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system and it defines a sanitary sewer system as being upstream of a wastewater treatment plant head works. Therefore, discharges in a wastewater treatment plant, a reclaimed water system or even from the back of a tanker truck are not SSOs and should not be reported in the SSO Database. However, these types of sewage spills should be reported to your Regional Board per the requirements in the wastewater treatment plant NPDES permit (refer to the Monitoring and Reporting Program in your permit) and/or local Health Department.

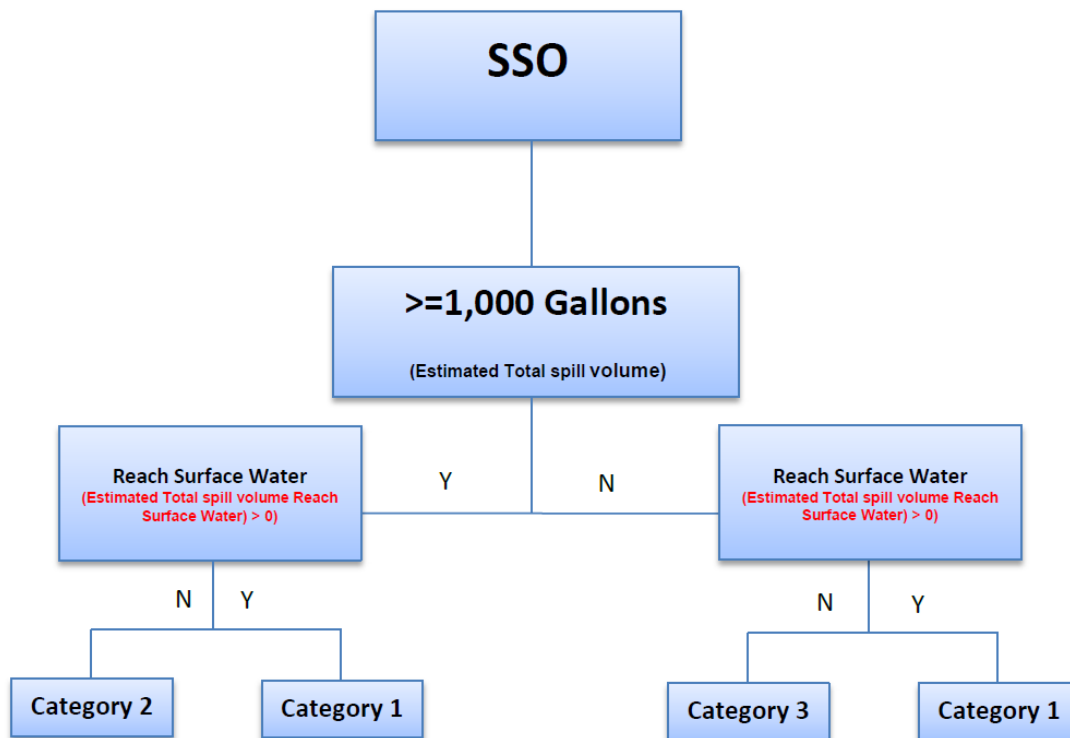


Figure 1 – SSO Categorization

2.3.1 SCREEN 1 FOR BASIC SPILL DATA

1. Physical location details

If one SSO event results in multiple appearance points in a sanitary sewer system asset, enter the GPS coordinates for the location of the SSO appearance point closest to the failure point, blockage or location of the flow condition that caused the SSO and provide descriptions of the locations of all other discharge points associated with the SSO event.

a. Spill location name

Enter the name of the location where the SSO occurred in the “Spill Location Name” field. This entry may be a general descriptor of the SSO location (e.g., street address, intersection, or manhole number or any other identification you wish to use).

b. Latitude of spill location

Enter the latitude of the spill location. A handheld GPS unit or the “GIS Tool” link on the SSO Database spill report page in the SSO Database can be used to determine this information. This field must be completed to “submit draft” for any SSO report but not to “save work in progress”.

c. Longitude of spill location

Enter the longitude of the spill location. A handheld GPS unit or the “GIS Tool” link on the SSO Database spill report page can be used to determine this information. This field must be completed to “submit draft” for any SSO report but not to “save work in progress”.

d. County

Enter the County where the SSO occurred. This field will be auto filled based on the location information provided above.

e. Regional Water Quality Control Board

Enter the Regional Water Quality Control Board where the SSO occurred. This field will be auto filled based on the location information provided above.

2. Estimate Spill Volumes

a. Estimated spill volume that reached a separate storm drain that flows to a surface water body?

Enter the volume, in whole numbers, that entered the separate storm drain.

b. Estimated spill volume recovered from the separate storm drain that flows to a surface water body?

Enter the volume, in whole numbers, that was recovered from the separate storm drain. **Do not include wash water recovered.**

c. Estimated spill volume that reached a drainage channel that flows to a surface water body?

Enter the volume, in whole numbers, that was discharged to a drainage channel.

Do not include any volume that entered a separate storm drain.

d. Estimated spill volume recovered from a drainage channel that flows to a surface water body?

Enter the volume, in whole numbers, that was recovered from the drainage channel. Do not include volume recovered from the separate storm drain or wash water recovered.

e. Estimated spill volume discharged directly to a surface water body?

Enter the volume, in whole numbers, that was discharged directly to a surface water body.

f. Estimated spill volume recovered from the surface water body?

Enter the volume, in whole numbers, that was recovered from the surface water body. Refer to question 36 in section 3.0 for important notification requirements required before diverting from surface water bodies.

g. Estimated spill volume discharged to land?

Enter the volume, in whole numbers, that discharged to the land (e.g., soil, grass, curb, street, etc.)

h. Estimated spill volume recovered from the discharge to land?

Enter the volume, in whole numbers, recovered from the discharge to land. This includes discharges directly to land, and discharges to a storm drain system or drainage channel that flows to a storm water infiltration/retention structure, field, or other non-surface water location.

After entering all the required information, select “Continue” to go to the next screen. If there are any errors or missing information, the system will highlight the questions with errors on the form in red.

2.3.2 SCREEN 2 FOR CATEGORY 3 SSO

The SSO Database will direct you to the following screen based on the information you entered on Screen 1 if the spill is a Category 3 spill (i.e., the SSO was less than 1,000 gallons and did not reach surface waters). On this screen, you will enter additional data on the SSO that was not entered onto Screen 1.

Note that all of the data entered on Screen 1 was carried forward onto Screen 2. Questions 1-11 are automatically populated based on the data entered in the Estimated Spill Volumes fields on Screen 1. Questions 1-11 on Screen 2 should be reviewed for accuracy and can be over written with correct data as necessary. This step may be necessary to correct the “County” or “Regional Water Quality Control Board” fields if the spill occurs close to a boundary and/or your sanitary sewer system spans multiple counties or Regional Water Quality Control Boards.

There are 30 questions total with 22 (including the questions answered in Screen 1) that have to be answered to complete Screen 2 for a Category 3 SSO. These thirty questions are shown below with the questions carried over from Screen 1. Note that on this screen you can modify the information entered on Screen 1. Questions with one asterisk (*) are required to submit a “draft” report and questions with two asterisks (**) are required to certify the report.

1. Spill Type:

The spill type is automatically determined based on the information you entered on Screen 1. In this case, the SSO is a Category 3 SSO (i.e., a spill less than 1,000 gallons and not reaching surface waters).

2. Estimated spill volumes:*

a) Estimated spill volume that reached a separate storm drain that flows to a surface water body?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

b) Estimated spill volume recovered from the separate storm drain that flows to a surface water body?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

c) Estimated spill volume that reached a drainage channel that flows to a surface water body?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

d) Estimated spill volume recovered from a drainage channel that flows to a surface water body?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

e) Estimated spill volume discharged directly to a surface water body?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

f) Estimated spill volume recovered from a drainage channel or surface water body?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

g) Estimated spill volume discharged to land?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

h) Estimated spill volume recovered from the discharge to land?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

3. Did the spill discharge to a drainage channel and/or surface water?*

This question is auto populated based on the answers to the Estimated Spill Volumes on screen 1. A “Yes” will be displayed if the answer to question 2.a is greater than the answer to question 2.b, the answer to question 2.c is greater than zero, and/or the answer to question 2.e is greater than zero. A “No” will be displayed

spill appearance points can be selected by holding the CTRL key on your keyboard.

14. Spill appearance point explanation:

If “Other” and/or multiple appearance points are selected, enter a description of the “Other” SSO appearance point not listed in the dropdown menu and/or, for multiple appearance points, enter a description including location details of each appearance point in this text field.

15. Final spill destination:**

Select the final destinations of the spill in the “Final Spill Destination” box. Multiple spill destinations can be selected by holding the CTRL key on your keyboard. If you selected “other” you are required to enter a description in the text box No 16 below. The “Final Spill Destination:” describes all areas that the wastewater flowed through and ultimately reached, which means multiple entries can be selected if necessary.

16. Explanation of final spill destination:

If the “final spill destination” is not listed in the dropdown menu and “Other” was selected, then enter a description of the final spill destination.

17. Estimated spill start date/time:*

Enter the estimated spill start date/time in a 24-hour clock format.

18. Date and time sanitary sewer system agency was notified of or discovered the spill:*

Enter when your agency was notified or discovered the spill date/time in a 24-hour clock format. The date/time has to be the same or later than the estimated spill start date/time.

19. Estimated Operator arrival date/time:*

Enter the estimated Operator arrival date/time in a 24-hour clock format. The date/time has to be the same or later than the estimated spill start date/time.

20. Estimated spill end date/time:**

Enter the estimated spill end date/time in a 24-hour clock format. The date/time has to be later than the estimated spill start date/time.

21. Spill cause:**

Select a cause for the spill from the dropdown menu. Multiple spill causes can be selected by holding the CTRL key on your keyboard. If the cause selected was “Other”, you are required to enter an explanation in text box No. 22 below.

22. Spill cause explanation:

If the “spill cause” is not listed in the dropdown menu and “Other” was selected in question 21, then enter a description of the spill cause.

23. Where did failure occur?***

Select where the failure occurred from the dropdown menu. Multiple failure locations can be selected by holding the CTRL key on your keyboard. If the cause selected is “Other”, you are required to enter an explanation in text box No. 24 below.

- 24. Explanation of where failure occurred:**
If the “where failure occurred” is not listed in the dropdown menu and “Other” was selected in question 23, then enter a description of where failure occurred.
- 25. Was this spill associated with a storm event?***
Select from the drop down whether a sewer flow condition resulting from storm induced inflow and/or infiltration where contributing factors for this SSO event.
- 26. Diameter of sewer pipe at the point of blockage or failure (if applicable):**
If applicable, enter the size in inches of the diameter of the sewer pipe where the point of blockage for the pipe or failure occurred.
- 27. Material of sewer pipe at the point of blockage or failure (if applicable):**
If applicable, enter the material of sewer pipe where the point of blockage for the pipe or failure occurred. Abbreviations such as PVC and VCP are acceptable.
- 28. Estimated age of sewer asset at the point of blockage or failure (if applicable):**
If applicable, enter the estimated age of the sewer asset, in whole numbers, where the point of blockage for the asset or failure occurred.
- 29. Explanation of volume estimation methods used:**
Give an explanation of the method(s) used to estimate the volume of the spill. The agency may refer to its spill response procedures or attach a sketch, if needed. The explanation may reference estimation methods contained within your agency’s SSO response procedures.
- 30. SSO Contact information:***
- Name and Title (Contact person who can answer specific questions about this SSO)
 - Contact Person Phone Number

2.3.3 SCREEN 2 FOR CATEGORY 2 SSO

The SSO Database will direct you to the following screen based on the information you entered on Screen 1 if the spill is a Category 2 spill (i.e., SSO was greater than 1,000 gallons and did not reach surface waters). On this screen, you will enter additional data on the SSO that was not entered onto Screen 1.

Note that all of the data entered on Screen 1 was carried forward onto Screen 2. Questions 1-11 are automatically populated based on the data entered in the Estimated Spill Volumes fields on Screen 1. Questions 1-11 on Screen 2 should be reviewed for accuracy and can be over written with correct data as necessary. This step may be necessary to correct the “County” or “Regional Water Quality Control Board” fields if the spill occurs close to a boundary and/or your sanitary sewer system spans multiple counties or Regional Water Quality Control Boards.

There are 36 questions total with 28 (including the questions answered in Screen 1) that have to be answered to complete Screen 2 for a Category 2 SSO. These thirty questions are shown below with the questions carried over from Screen 1. Note that on this screen you can modify the information entered on Screen 1. Questions with one asterisk (*) are required to submit a “draft” report and questions with two asterisks (**) are required to certify the report.

1. Spill Type:

This is automatically determined based on the information you entered on Screen 1. In this case, the SSO is a Category 2 SSO (i.e., spill is greater than 1,000 gallons and not reaching surface waters).

2. Estimated spill volumes:*

a) Estimated spill volume that reached a separate storm drain that flows to a surface water body?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

b) Estimated spill volume recovered from the separate storm drain that flows to a surface water body?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

c) Estimated spill volume that reached a drainage channel that flows to a surface water body?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

d) Estimated spill volume recovered from a drainage channel that flows to a surface water body?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

e) Estimated spill volume discharged directly to a surface water body?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

f) Estimated spill volume recovered from a drainage channel or surface water body?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

g) Estimated spill volume discharged to land?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

h) Estimated spill volume recovered from the discharge to land?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

3. Did the spill discharge to a drainage channel and/or surface water?*

This question is auto populated based on the answers to the Estimated Spill Volumes on Screen 1. A “Yes” will be displayed if the answer to question 2.a is greater than the answer to question 2.b, the answer to question 2.c is greater than zero, and/or the answer to question 2.e is greater than zero. A “No” will be displayed

if the answer to question 2.a equals the answer to question 2.b, the answer to question 2.c equals zero, and/or the answer to question 2.e equals zero.

4. Did the spill reach a storm drainpipe that is not part of a combined sewer system?*

This question is auto populated based on the answers to the Estimated Spill Volumes on Screen 1. A “Yes” will be displayed if the answer to question 2.a is greater than zero. A “No” will be displayed if the answer to question 2.a equals zero.

5. 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? *

This answer is auto populated based on the answers to the Estimated Spill Volumes. A “Yes” will be displayed if the answer to question 2.b equals the answer to question 2.a. A “No” will be displayed if the answer to question 2.b is less than the answer to question 2.a.

6. Spill location name:*

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

7. Latitude of spill location:*

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

8. Longitude of spill location:*

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

9. County:*

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

10. Regional Water Quality Control Board:*

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

11. Spill location description:

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

12. Number of Appearance Points:*

Enter the number of appearance points. If one SSO event results in multiple appearance points in a sewer system asset enter the number of appearance points if greater than one (1).

13. Spill appearance point:*

Select the spill appearance point from the “Spill Appearance Point:” dropdown. If you selected “other” you are required to enter a description in text box No. 14 below. The “Spill Appearance Point:” is where wastewater first surfaced on the spill site. Multiple

spill appearance points can be selected by holding the CTRL key on your keyboard.

14. Spill appearance point explanation:*

If “Other” and/or multiple appearance points are selected, enter a description of the “Other” SSO appearance point not listed in the dropdown menu and/or, for multiple appearance points, enter a description including location details of each appearance point in this text field.

15. Final spill destination:**

Select the final destinations of the spill in the “Final Spill Destination” box. Multiple spill destinations can be chosen by holding the CTRL key on your keyboard. If you selected “other” you are required to enter a description in the text box No 16 below. The “Final Spill Destination:” describes all areas that the wastewater flowed through and ultimately reached, which means multiple entries can be selected if necessary.

16. Explanation of final spill destination:

If the “final spill destination” is not listed in the dropdown menu and “Other” was selected, then enter a description of the final spill destination

17. Estimated spill start date/time:*

Enter the estimated spill start date/time in a 24-hour clock format.

18. Date and time sanitary sewer system agency was notified of or discovered the spill:*

Enter when your agency was notified or discovered the spill date/time in a 24-hour clock format. The date/time has to be the same or later than the estimated spill start date/time.

19. Estimated Operator arrival date/time:*

Enter the estimated Operator arrival date/time in a 24-hour clock format. The date/time has to be the same or later than the estimated spill start date/time.

20. Estimated spill end date/time:**

Enter the estimated spill end date/time in a 24-hour clock format. The date/time has to be later than the estimated spill start date/time.

21. Spill cause:**

Select a cause for the spill from the dropdown menu. Multiple spill causes can be selected by holding the CTRL key on your keyboard. If the cause selected was “Other”, you are required to enter an explanation in text box No. 22 below.

22. Spill cause explanation:

If the “spill cause” is not listed in the dropdown menu and “Other” was selected in question 21, then enter a description of the spill cause.

23. Where did failure occur?***

Select where the failure occurred from the dropdown menu. Multiple failure locations can be selected by holding the CTRL key on your keyboard. If the cause selected is “Other”, you are required to enter an explanation in text box No. 24 below.

- 24. Explanation of where failure occurred:**
If the “where failure occurred” is not listed in the dropdown menu and “Other” was selected in question 23, then enter a description of where failure occurred.
- 25. Was this spill associated with a storm event?***
Select from the drop down whether a sewer flow condition resulting from storm induced inflow and/or infiltration were contributing factors for this SSO event.
- 26. Diameter of sewer pipe at the point of blockage or failure (if applicable):**
If applicable, enter the size in inches of the diameter of the sewer pipe where the point of blockage for the pipe or failure occurred.
- 27. Material of sewer pipe at the point of blockage or failure (if applicable):**
If applicable, enter the material of sewer pipe where the point of blockage for the pipe or failure occurred. Abbreviations such as PVC and VCP are acceptable.
- 28. Estimated age of sewer asset at the point of blockage or failure (if applicable):**
If applicable, enter the estimated age of the sewer asset, in whole numbers, where the point of blockage for the asset or failure occurred.
- 29. Spill response activities:***
Select the response activities from the dropdown menu that your agency completed in responding to the spill. Multiple response activities can be selected by holding the CTRL key on your keyboard. If your selection was “Other”, you are required to enter a description of the response activities in text box No. 30 below.
- 30. Explanation of spill response activities:**
If the “spill response activities” completed are not listed in the dropdown menu and “Other” was selected in question 29, enter a description of the spill response activities completed.
- 31. Spill response completion date:***
Enter the spill response completion date/time in a 24-hour clock format (i.e., when agency staff completed their cleanup work). The date/time has to be later than the estimated spill start date/time.
- 32. Spill corrective action taken:***
Select the corrective actions which were taken by your agency in response to the spill. Multiple corrective actions can be selected by holding the CTRL key on your keyboard. If your selection was “Other”, you are required to enter a description of the corrective actions taken in text box No. 33 below.
- 33. Explanation of spill corrective action taken:**
If the “spill corrective action taken” tasks completed are not listed in the dropdown menu and “Other” was selected, then enter a description of the spill corrective actions taken.
- 34. Is there an ongoing investigation:***
Select “yes” from the dropdown menu if there is an ongoing investigation of the SSO. Select “no” from the dropdown menu if the investigation of the SSO has been

completed.

35. Explanation of volume estimation methods used:

Provide a description of the method(s) used to estimate the volume of the spill. Attach your calculations and a sketch if needed. The explanation may reference estimation methods contained within your agency's SSO response procedures.

36. SSO Contact information:*

- a. Name and Title (Contact person who can answer specific questions about this SSO)
- b. Contact Person Phone Number

2.3.4 SCREEN 2 FOR CATEGORY 1 SSO

The SSO Database will direct you to the following screen based on the information you entered on Screen 1 if the spill is a Category 1 spill (i.e., the SSO reached surface waters). On this screen, you will enter additional data on the SSO that was not entered on Screen 1.

Note that all of the data entered on Screen 1 was carried forward onto Screen 2. Questions 1-11 are automatically populated based on the data entered in the Estimated Spill Volumes fields on Screen 1. Questions 1-11 on Screen 2 should be reviewed for accuracy and can be over written with correct data as necessary. This step may be necessary to correct the "County" or "Regional Water Quality Control Board" fields if the spill occurs close to a boundary and/or your sanitary sewer system spans multiple counties or Regional Water Quality Control Boards.

There are 47 questions total with 37 (including the questions answered in Screen 1) that have to be answered to complete Screen 2. These forty seven questions are shown below with the questions carried over from Screen 1. Note that on this screen you can modify the information entered on Screen 1. Questions with one asterisk (*) are required to submit a "draft" report and questions with two asterisks (**) are required to certify the report.

1. Spill Type:

This is automatically determined based on the information you entered on Screen 1. In this case, the SSO is a Category 1 SSO (i.e., the spill reached surface waters).

2. Estimated spill volumes:*

a) Estimated spill volume that reached a separate storm drain that flows to a surface water body?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

b) Estimated spill volume recovered from the separate storm drain that flows to a surface water body?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

c) Estimated spill volume that reached a drainage channel that flows to a surface water body?

The answer to this question is carried over from Screen 1. See section 2.3.1

for guidance.

d) Estimated spill volume recovered from a drainage channel that flows to a surface water body?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

e) Estimated spill volume discharged directly to a surface water body?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

f) Estimated spill volume recovered from a drainage channel or surface water body?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

g) Estimated spill volume discharged to land?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

h) Estimated spill volume recovered from the discharge to land?

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

3. Did the spill discharge to a drainage channel and/or surface water?*

This question is auto populated based on the answers to the Estimated Spill Volumes on Screen 1. A “Yes” will be displayed if the answer to question 2.a is greater than the answer to question 2.b, the answer to question 2.c is greater than zero, and/or the answer to question 2.e is greater than zero. A “No” will be displayed if the answer to question 2.a equals the answer to question 2.b, the answer to question 2.c equals zero, and/or the answer to question 2.e equals zero.

4. Did the spill reach a storm drainpipe that is not part of a combined sewer system?*

This question is auto populated based on the answers to the Estimated Spill Volumes on Screen 1. A “Yes” will be displayed if the answer to question 2.a is greater than zero. A “No” will be displayed if the answer to question 2.a equals zero.

5. 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?*

This answer is auto populated based on the answers to the Estimated Spill Volumes. A “Yes” will be displayed if the answer to question 2.b equals the answer to question 2.a. A “No” will be displayed if the answer to question 2.b is less than the answer to question 2.a.

6. Spill location name:*

The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.

- 7. Latitude of spill location:***
The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.
- 8. Longitude of spill location:***
The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.
- 9. County:***
The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.
- 10. Regional Water Quality Control Board:***
The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.
- 11. Spill location description:**
The answer to this question is carried over from Screen 1. See section 2.3.1 for guidance.
- 12. Number of Appearance Points:***
Enter the number of appearance points. If one SSO event results in multiple appearance points in a sewer system asset enter the number of appearance points if greater than one (1).
- 13. Spill appearance point:***
Select the spill appearance point from the “Spill Appearance Point:” dropdown. If you selected “other” you are required to enter a description in text box No. 14 below. The “Spill Appearance Point:” is where wastewater first surfaced on the spill site. Multiple spill appearance points can be selected by holding the CTRL key on your keyboard.
- 14. Spill appearance point explanation:***
If “Other” and/or multiple appearance points are selected, enter a description of the “Other” SSO appearance point not listed in the dropdown menu and/or, for multiple appearance points, enter a description including location details of each appearance point in this text field.
- 15. Final spill destination:****
Select the final destinations of the spill in the “Final Spill Destination” box. Multiple spill destinations can be selected by holding the CTRL key on your keyboard. If you selected “other” you are required to enter a description in text box No 16 below. The “Final Spill Destination:” describes all areas that the wastewater flowed through and ultimately reached, which means multiple entries can be selected if necessary.
- 16. Explanation of final spill destination:**
If the “final spill destination” is not listed in the dropdown menu and “Other” was selected, then enter a description of the final spill destination

- 17. Estimated spill start date/time:***
Enter the estimated spill start date/time in a 24-hour clock format.
- 18. Date and time sanitary sewer system agency was notified of or discovered spill:***
Enter when your agency was notified or discovered the spill date/time in a 24-hour clock format. The date/time has to be the same or later than the estimated spill start date/time.
- 19. Estimated Operator arrival date/time:***
Enter the estimated Operator arrival date/time in a 24-hour clock format. The date/time has to be the same or later than the estimated spill start date/time.
- 20. Estimate spill end date/time:****
Enter the estimated spill end date/time in a 24-hour clock format. The date/time has to be the later than the estimated spill start date/time.
- 21. Spill cause: ****
Select a cause for the spill from the dropdown menu. Multiple spill causes can be selected by holding the CTRL key on your keyboard. If the cause selected was "Other", you are required to enter an explanation in text box No. 22 below.
- 22. Spill cause explanation: ****
If the "spill cause" is not listed in the dropdown menu and "Other" was selected in question 21, then enter a description of the spill cause.
- 23. Where did failure occur? ****
Select where the failure occurred from the dropdown menu. Multiple failure locations can be selected by holding the CTRL key on your keyboard. If the cause selected is "Other" you are required to enter an explanation in text box No. 24 below.
- 24. Explanation of where failure occurred:**
If the "where failure occurred" is not listed in the dropdown menu and "Other" was selected in question 23, then enter a description of where the failure occurred.
- 25. Was this spill associated with a storm event? ****
Select from the drop down whether a sewer flow condition resulting from storm induced inflow and/or infiltration where contributing factors for this SSO event.
- 26. Diameter of sewer pipe at the point of blockage or failure (if applicable):**
If applicable, enter the size in inches of the diameter of the sewer pipe where the point of blockage of the pipe or failure occurred.
- 27. Material of sewer pipe at the point of blockage or failure (if applicable):**
If applicable, enter the material of sewer pipe where the point of blockage of the pipe or failure occurred. Abbreviations such as PVC and VCP are acceptable.
- 28. Estimated age of sewer asset at the point of blockage or failure (if applicable):**
If applicable, enter the estimated age of the sewer asset, in whole numbers, where the point of blockage of the asset or failure occurred.

- 29. Spill response activities:****
Select the response activities from the dropdown menu that your agency completed in responding to the spill. Multiple response activities can be selected by holding the CTRL key on your keyboard. If your selection was “Other”, you are required to enter a description of the response activities in text box No. 30 below.
- 30. Explanation of spill response activities:**
If the “spill response activities” completed are not listed in the dropdown menu and “Other” was selected, then enter a description of the spill response activities completed.
- 31. Spill response completion date:****
Enter the spill response completion date/time in a 24-hour clock format (i.e., when agency staff completed their cleanup work). The date/time has to be later than the estimated spill start date/time.
- 32. Spill corrective action taken:****
Select the corrective actions which were taken by your agency in response to the spill. Multiple corrective actions can be selected by holding the CTRL key on your keyboard. If your selection was “Other”, you are required to enter a description of the corrective actions taken in text box No. 33 below.
- 33. Explanation of spill corrective action taken:**
If the “spill corrective action taken” tasks completed are not listed in the dropdown menu and “Other” was selected, then enter a description of the spill corrective actions taken.
- 34. Is there an ongoing investigation?:****
Select “yes” from the dropdown menu if there is an ongoing investigation of the SSO. Select “no” from the dropdown menu if the investigation of the SSO has been completed.
- 35. Visual inspection results from impacted surface water:**
Describe any observations made during visual inspections of surface waters impacted by the SSO.
- 36. Health warnings posted?:****
Select whether or not health warning signs or notices were posted at or near the water bodies, beaches, and/or other areas affected by the SSO.
- 37. Did the spill result in a beach closure (If YES, answer question 38)?:****
Select whether or not the SSO resulted in a beach or aquatic recreation area closure.
- 38. Name of closed beach(es):****
Enter the names of any beaches or aquatic recreation areas closed by the SSO. Use commas to separate multiple entries.
- 39. Name of impacted surface water(s):****
Enter the names of all surface waters impacted by the SSO. Use commas to

separate multiple entries. If a receiving surface water body is un-named, enter “Un-named Tributary to “XXXXX” where XXXXX is the name of the first named (e.g., on the USGS Topo Map for the area) downstream surface water body.

40. Water quality samples analyzed for:**

Select the water quality indicators for which water quality sample results were obtained. Multiple indicators can be chosen by holding the CTRL key on your keyboard. Select “No water quality samples taken” if the SSO reached a surface water, but water quality sampling was not performed. If your selection included “Other”, “Other chemical indicator(s)”, or “Biological Indicator(s)”, you are required to enter an explanation of the other indicators analyzed in text box No. 41 below.

41. Explanation of water quality samples analyzed for:

If “Other”, “Other chemical indicator(s)”, or “Biological Indicator(s)” were selected, enter an explanation of the indicators analyzed in the water quality sample(s).

42. Water quality sample results reported to:**

Select which agencies the water quality sample results were reported to. Multiple agencies can be selected by holding the CTRL key on your keyboard. Select “No water quality samples taken” if the SSO reached a surface water, but water quality sampling was not performed. If your selection includes “Other”, you are required to enter the names of the other agencies reported to in text box No. 43 below.

43. Explanation of water quality samples reported to:

If “Other” was selected, then enter the names of the other agencies the water quality sample results were reported to.

44. Explanation of volume estimation methods used:**

Provide a description of the method(s) used to estimate the volume of the spill. Attach your calculations and a sketch if needed. The explanation may reference estimation methods contained within your agency’s SSO response procedures.

45. Cal OES Control Number:**

For spills of 1,000 gallons or greater, enter the control number received from Cal OES when you notified them of the SSO. The control number must be entered without dashes. If multiple notifications were made to Cal OES, use the control number for the first notification. The control number can also be found on the Cal OES website at: [http://w3.calema.ca.gov/operational/mal haz.nsf/\\$defaultview](http://w3.calema.ca.gov/operational/mal haz.nsf/$defaultview). NOTE: Per section B.3 of the SSS WDRs, Monitoring and Reporting Program (MRP), information provided to Cal OES must be updated related to volume and impacts to surface water if there are significant changes to this information after your initial report.

46. Cal OES called date/time:**

Enter the date and time Cal-OES was notified in a 24-hour clock format. If multiple notifications were made to Cal-OES, use the first call time associated with the control number entered in box No. 45 above. The call date and time can be found on the Cal OES website at: [http://w3.calema.ca.gov/operational/mal haz.nsf/\\$defaultview](http://w3.calema.ca.gov/operational/mal haz.nsf/$defaultview)

47. SSO Contact information:*

- a. Name and Title (Contact person who can answer specific questions about this SSO)
- b. Contact Person Phone Number

2.4 PRIVATE LATERAL SEWER DISCHARGE (PLSD)

The MRP for the SSS WDRs requires that all Category 1, Category 2, and Category 3 SSOs from an Enrollee's sanitary sewer systems be reported to the SSO Database, however, when failures from Private Laterals result in sewage discharges and the enrollee has knowledge of it, they are not required to report those discharges to the SSO Database. The enrollee can, however, report the PLSD to the SSO Database voluntarily.

Generally, a sanitary sewer lateral is defined as the sewer line running from a connection to a sewer main line to a structure or facility connected to that sanitary sewer system. The lower lateral is usually defined as that portion of the lateral running from the point of connection to the sewer main to the property line or easement line of the parcel being served. The upper lateral is usually defined as that portion of the lateral running from the property or easement line to the structure(s) being served. Some sewer agencies do not own or maintain either portion of the lateral, some agencies own and maintain only the lower lateral, and in some cases, an agency may own and maintain both the upper and lower lateral.

There are thirty four (34) questions total with, depending on how the location information is answered, twelve to fifteen (12-15) of those questions that have to be answered to complete a PLSD report.

2.4.1 PLSD REPORT

1. Spill Location Name:*

Enter the name of the party responsible for the spill. Do not enter private party information (i.e., name or other identifying information).

2. Estimated spill volume?*

Enter the total estimated spill volume. This can be ascertained by questioning the property occupants regarding the spill duration and estimating the volume using standard spill volume estimation methods.

3. Did the spill discharge to a drainage channel and/or surface water?*

This can be determined by the physical evidence at the site.

4. Did the spill reach a storm drainpipe that is not part of a combined sewer system?*

This can be determined by the physical evidence at the site.

5. 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?*

If your agency assisted the private property owner in the cleanup of the site this can be determined. The answer may also be determined by questioning property owners.

- 6. Estimated volume of spill recovered:**
If your agency assisted the private property owner in the cleanup of the site this can be determined. The answer may also be determined by questioning the property occupants.
- 7. Estimated volume of spill that reached surface water, drainage channel, or not recovered from a separate storm drain:**
If your agency assisted the private property owner in the cleanup of the site this can be determined. The answer may also be determined by questioning the property occupants.
- 8. Latitude of spill location (only required if questions 10-14 are not answered): ***
If questions 10 – 14 are not answered, enter the latitude of the spill location. A handheld GPS unit or the “GIS Tool” link on the SSO Database spill report page can be used to determine this information. This field must be completed to “submit draft” for any SSO report but not to “save work in progress”.
- 9. Longitude of spill location(only required if questions 10-14 are not answered): ***
If questions 10 – 14 are not answered, enter the longitude of the spill location. A handheld GPS unit or the “GIS Tool” link on the SSO Database spill report page can be used to determine this information. This field must be completed to “submit draft” for any SSO report but not to “save work in progress”.
- 10. Physical Location Details (only required if questions 8 & 9 are not answered):***
If questions 8 and 9 are not answered, for questions 10 – 14, enter the street number, street name, Suite or Apt, City and zip code of the site of the PLSD.
- 15. Spill location description:**
Enter a detailed spill location description. This field is optional and allows for a detailed description of the spill site including any significant characteristics or considerations.
- 16. Spill appearance point:***
Select the spill appearance point from the “Spill Appearance Point:” dropdown. If you selected “other”, you are required to enter a description in text box No. 17 below. The “Spill Appearance Point:” is where wastewater first surfaced on the spill site. Multiple spill appearance points can be selected by holding the CTRL key on your keyboard.
- 17. Spill appearance point explanation:**
If “Other” and/or multiple appearance points are selected, enter a description of the “Other” SSO appearance point not listed in the dropdown menu and/or, for multiple appearance points, enter a description including location details of each appearance point in this text field.
- 18. Final spill destination:**
Select the final destinations of the spill in the “Final Spill Destination” field. Multiple spill locations can be selected by holding the CTRL key on your keyboard. If you selected “other”, you are required to enter a description in text box No 19 below. The

“Final Spill Destination” describes all the areas that wastewater flowed through and ultimately reached, which means multiple entries can be selected if necessary.

19. Explanation of final spill destination:

If the “final spill destination” is not listed in the dropdown menu and “Other” was selected question 18, then enter a description of the final spill destination

20. Estimated spill start date/time:*

Enter the estimated spill start date/time in a 24-hour clock format.

21. Date and time sanitary sewer system agency was notified of or discovered the spill: *

Enter the date/time, in a 24-hour clock format, when your agency was notified or discovered the spill. The date/time has to be the same or later than the estimated spill start date/time.

22. Estimated Operator arrival date/time:

Enter the estimated Operator arrival date/time in a 24-hour clock format. The date/time has to be the same or later than the estimated spill start date/time.

23. Estimated spill end date/time:

Enter the estimated spill end date/time in a 24-hour clock format. The date/time has to be the later than the estimated spill start date/time.

24. Spill cause:*

Select a cause for the spill from the dropdown menu. Multiple spill causes can be selected by holding the CTRL key on your keyboard. If the cause selected was “Other”, you are required to enter an explanation in text box No. 25 below.

25. Spill cause explanation:

If the “spill cause” is not listed in the dropdown menu and “Other” was selected in question 24, then enter a description of the spill cause.

26. PLSD Source:

Select the source of the spill from the dropdown menu. Multiple sources can be selected by holding the CTRL key on your keyboard. If the source selected is “Other”, you are required to enter an explanation in text box No. 27 below.

27. Explanation of PLSD Source:

If the “PLSD Source” is not listed in the dropdown menu and “Other” was selected in question 26, then enter a description of the PLSD Source.

28. Where did failure occur?*

Select where the failure occurred from the dropdown menu. Multiple failure locations can be selected by holding the CTRL key on your keyboard. If the location selected is “Other”, you are required to enter an explanation in text box No. 29 below.

29. Explanation of Where Failure Occurred:

If the “where failure occurred” is not listed in the dropdown menu and “Other” was selected in question 28, then enter a description of where the failure occurred.

- 30. Diameter of sewer pipe at the point of blockage or failure (if applicable):**
If applicable, enter the lateral diameter in inches.
- 31. Material of sewer pipe at the point of blockage or failure (if applicable):**
If applicable, enter the material type of the lateral.
- 32. Estimated age of sewer asset at the point of blockage or failure (if applicable):**
If applicable, enter the estimated age of the sewer asset in whole numbers.
- 33. Spill response activities:**
Select the response activities from the dropdown menu that your agency completed in responding to the spill. Multiple response activities can be selected by holding the CTRL key on your keyboard. If your selection was “Other”, enter a description of the response activities in text box No. 34 below.
- 34. Explanation of spill response activities:**
If the “spill response activities” completed are not listed in the dropdown menu and “Other” was selected in question 33, then enter a description of the spill response activities completed.

2.5 NO SPILL CERTIFICATION

The SSS WDRs require enrollees to certify on a monthly basis in the SSO Database that they have not had any overflows for months in which they do not report one or more SSOs. This is a simple process that takes about three clicks of a mouse.

When you are at the main SSO Database screen for your sanitary sewer system, click on the “Generate No Spill Certification” button and the no spill certification screen will appear. You will see three items: (1) a paragraph starting with “I certify under penalty of law that ...”; (2) drop downs and a certification button; and (3) a list of previous No Spill Certifications that your sanitary sewer system staff has submitted (see sample below).

To certify a no-spill month, use the two drop downs to select the month and year and then click on the “Certify” button and your certification will be added to the list below. You should note that in reviewing the list of previous certifications, if you find a month that had no spills and for some reason it was not reported, you can certify that month at any time.

If you have a spill that continues over two months (i.e., starts on the last day of a month but is not stopped until the next month), you should report the spill on the month that it started and, if no other spills occur in the next month in which the spill ended, then that month can be considered a no-spill month. If you have reported one or more Private Lateral Sewage Discharges in a given month but had no SSOs then, a no-spill certification is required to be submitted for that month.

6.2 SSO CATEGORY 1



[Menu](#) | [Help](#) | [Log out](#)

Navigate to:

You are logged-in as: SSO Demo. If this account does not belong to you, please log out.

Spill - General Information ?

[SSO Menu](#)

Spill Event ID: New Regional Water Board: Region 5S - Sacramento
 Spill Location Name: Test Agency: State Water Resources Control Board
 WDID: 5SSO10000 Sanitary Sewer System: Demo South CS

[General Info](#) [Spill Related Parties](#) [Attachments](#)

Spill - General Information, Screen 2

You have minutes to save your report before your session expires.

Note: Questions with ****** are required to be answered for 'Save Work in Progress'.

Questions with ***** are required to be answered for 'Submit Draft'.

Questions with ******* are required to be answered for 'Ready to Certify'.

Submit Draft On:

Last Updated By: [SSO Demo](#)

1 - Spill Type: Category 1

*** 2 - Estimate Spill Volumes**

a) Estimated spill volume that reached a separate storm drain that flows to a surface water body? gallons

b) Estimated spill volume recovered from the separate storm drain that flows to a surface water body? (Do not include water used for clean-up) gallons

c) Estimated spill volume that reached a drainage channel that flows to a surface water body? gallons

d) Estimated spill volume recovered from a drainage channel that flows to a surface water body? gallons

e) Estimated spill volume discharged directly to a surface water body? gallons

f) Estimated spill volume recovered from surface water body? gallons

g) Estimated spill volume discharged to land? (Includes discharges directly to land, and discharges to a storm drain system or drainage channel that flows to a storm water infiltration/retention structure, field, or other non-surface water location.) gallons

h) Estimated spill volume recovered from the discharge to land? (Do not include water used for clean-up) gallons

Estimated Total spill volume to Reach Surface Water (a-b+c+e)	Estimated Total spill volume to Reach Land (g)	Estimated Total spill volume Recovered (b+d+f+h)	Estimated Total spill volume (a+c+e+g)
<input type="text" value="1"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="1"/>

* 3 - Did the spill discharge to a drainage channel and/or surface water?

* 4 - Did the spill reach a storm drainpipe that is not part of a combined sewer system?

* 5 - 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?

Physical Location Details

* 6 - Spill location name:

* 7 - Latitude of spill location: deg. min. sec. OR decimal degrees [\[Map \]](#)

* 8 - Longitude of spill location: deg. min. sec. OR decimal degrees [\[Map \]](#)

* 9 - County:

* 10 - Regional Water Quality Control Board:

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

Spill Details

*** 12 - Number Of appearance points:**

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

*** 14 - Spill appearance point explanation:**
(Required if spill appearance point is "Other" and/or multiple appearance points are selected)

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

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

*** 17 - Estimated spill start date/time:** : Date Format: MM/DD/YYYY

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

*** 19 - Estimated Operator arrival date/time:** : Date Format: MM/DD/YYYY

**** 20 - Estimated spill end date/time:** : Date Format: MM/DD/YYYY

**** 21 - Spill cause:**

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

**** 23 - Where did failure occur?**

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

**** 25 - Was this spill associated with a storm event?**

26 - Diameter of sewer pipe at the point of blockage or failure: inches

27 - Material of sewer pipe at the point of blockage or failure:

28 - Estimated age of sewer asset at the point of blockage or failure:

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

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

**** 31 - Spill response completion date:** : Date Format: MM/DD/YYYY

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

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

**** 34a - Is there an ongoing investigation?**

34b - Reason for ongoing investigation?

35 - Visual inspection results from impacted receiving water:

**** 36 - Health warnings posted?**

**** 37 - Did the spill result in a beach closure (If YES, answer questions 38)?**

**** 38 - Name of impacted beach(es) (enter NA if None):**

39 - Name of impacted surface water(s) (enter Un-named Tributary to XXXXX where XXXXX is the name of first named downstream tributary if receiving surface water body is un-named):

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

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

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

County Health Agency
Regional Water Quality Control Board
Other (specify below)

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

**** 44 - Explanation of volume estimation methods used:**
(Describe how you developed spill volume estimates for this spill)

Notification Details

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

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

 : : Date Format: MM/DD/YYYY

*** 47(a) - Name and Tittle (Contact person who can answer specific questions about this SSO)**

*** 47(b) - Contact Person Phone Number**

Save Work in Progress

Submit Draft

Ready to Certify

6.3 SSO CATEGORY 2



[Menu](#) | [Help](#) | [Log out](#)

Navigate to:

You are logged-in as: SSO Demo. If this account does not belong to you, please log out.

Spill - General Information ?

[SSO Menu](#)

Spill Event ID: New Regional Water Board: Region 5S - Sacramento
 Spill Location Name: Test Agency: State Water Resources Control Board
 WDID: 5SSO10000 Sanitary Sewer System: Demo South CS

[General Info](#) [Spill Related Parties](#) [Attachments](#)

Spill - General Information, Screen 2

You have minutes to save your report before your session expires.

Note: Questions with ****** are required to be answered for 'Save Work in Progress'.
 Questions with ***** are required to be answered for 'Submit Draft'.
 Questions with ******* are required to be answered for 'Ready to Certify'.

Submit Draft On:

Last Updated By: [SSO Demo](#)

1 - Spill Type: Category 2

*** 2 - Estimate Spill Volumes**

- a) Estimated spill volume that reached a separate storm drain that flows to a surface water body? gallons
- b) Estimated spill volume recovered from the separate storm drain that flows to a surface water body? (Do not include water used for clean-up) gallons
- c) Estimated spill volume that reached a drainage channel that flows to a surface water body? gallons
- d) Estimated spill volume recovered from a drainage channel that flows to a surface water body? gallons
- e) Estimated spill volume discharged directly to a surface water body? gallons
- f) Estimated spill volume recovered from surface water body? gallons
- g) Estimated spill volume discharged to land? (Includes discharges directly to land, and discharges to a storm drain system or drainage channel that flows to a storm water infiltration/retention structure, field, or other non-surface water location.) gallons
- h) Estimated spill volume recovered from the discharge to land? (Do not include water used for clean-up) gallons

Estimated Total spill volume to Reach Surface Water (a-b+c+e)	Estimated Total spill volume to Reach Land (g)	Estimated Total spill volume Recovered (b+d+f+h)	Estimated Total spill volume (a+c+e+g)
<input type="text" value="0"/>	<input type="text" value="1000"/>	<input type="text" value="0"/>	<input type="text" value="1000"/>

* 3 - Did the spill discharge to a drainage channel and/or surface water?

* 4 - Did the spill reach a storm drainpipe that is not part of a combined sewer system?

* 5 - 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?

Physical Location Details

* 6 - Spill location name:

* 7 - Latitude of spill location: deg. min. sec. OR decimal degrees [\[Map \]](#)

* 8 - Longitude of spill location: deg. min. sec. OR decimal degrees [\[Map \]](#)

* 9 - County:

* 10 - Regional Water Quality Control Board:

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

Spill Details

* 12 - Number Of appearance points:

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

* 14 - Spill appearance point explanation:
(Required if spill appearance point is "Other" and/or multiple appearance points are selected)

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

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

* 17 - Estimated spill start date/time: : Date Format: MM/DD/YYYY

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

* 19 - Estimated Operator arrival date/time: : Date Format: MM/DD/YYYY

** 20 - Estimated spill end date/time: : Date Format: MM/DD/YYYY

** 21 - Spill cause:

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

** 23 - Where did failure occur?

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

** 25 - Was this spill associated with a storm event?

26 - Diameter of sewer pipe at the point of blockage or failure: inches

27 - Material of sewer pipe at the point of blockage or failure:

28 - Estimated age of sewer asset at the point of blockage or failure:

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

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

** 31 - Spill response completion date: : Date Format: MM/DD/YYYY

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

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

** 34a - Is there an ongoing investigation?

35 - Explanation of volume estimation methods used:
(Describe how you developed spill volume estimates for this spill)

* 36(a) - Name and Tittle (Contact person who can answer specific questions about this SSO)

* 36(b) - Contact Person Phone Number

6.4 SSO CATEGORY 3



[Menu](#) | [Help](#) | [Log out](#)

Navigate to:

You are logged-in as: SSO Demo. If this account does not belong to you, please log out.

Spill - General Information ?

[SSO Menu](#)

Spill Event ID: New Regional Water Board: Region 5S - Sacramento
 Spill Location Name: Test Agency: State Water Resources Control Board
 WDID: 5SSO10000 Sanitary Sewer System: Demo South CS

[General Info](#) [Spill Related Parties](#) [Attachments](#)

Spill - General Information, Screen 2

You have minutes to save your report before your session expires.

Note: Questions with ****** are required to be answered for 'Save Work in Progress'.
 Questions with ***** are required to be answered for 'Submit Draft'.
 Questions with ******* are required to be answered for 'Ready to Certify'.

Submit Draft On:

Last Updated By: [SSO Demo](#)

1 - Spill Type: Category 3

*** 2 - Estimate Spill Volumes**

- a) Estimated spill volume that reached a separate storm drain that flows to a surface water body? gallons
- b) Estimated spill volume recovered from the separate storm drain that flows to a surface water body? (Do not include water used for clean-up) gallons
- c) Estimated spill volume that reached a drainage channel that flows to a surface water body? gallons
- d) Estimated spill volume recovered from a drainage channel that flows to a surface water body? gallons
- e) Estimated spill volume discharged directly to a surface water body? gallons
- f) Estimated spill volume recovered from surface water body? gallons
- g) Estimated spill volume discharged to land? (Includes discharges directly to land, and discharges to a storm drain system or drainage channel that flows to a storm water infiltration/retention structure, field, or other non-surface water location.) gallons
- h) Estimated spill volume recovered from the discharge to land? (Do not include water used for clean-up) gallons

Estimated Total spill volume to Reach Surface Water (a-b+c+e)	Estimated Total spill volume to Reach Land (g)	Estimated Total spill volume Recovered (b+d+f+h)	Estimated Total spill volume (a+c+e+g)
<input type="text" value="0"/>	<input type="text" value="1"/>	<input type="text" value="0"/>	<input type="text" value="1"/>

* 3 - Did the spill discharge to a drainage channel and/or surface water?

* 4 - Did the spill reach a storm drainpipe that is not part of a combined sewer system?

* 5 - 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?

Physical Location Details

* 6 - Spill location name:

* 7 - Latitude of spill location: deg. min. sec. OR decimal degrees [\[Map \]](#)

* 8 - Longitude of spill location: deg. min. sec. OR decimal degrees [\[Map \]](#)

* 9 - County:

* 10 - Regional Water Quality Control Board:

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

Spill Details

* 12 - Number Of appearance points:

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

* 14 - Spill appearance point explanation:
(Required if spill appearance point is "Other" and/or multiple appearance points are selected)

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

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

* 17 - Estimated spill start date/time: : Date Format: MM/DD/YYYY

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

* 19 - Estimated Operator arrival date/time: : Date Format: MM/DD/YYYY

** 20 - Estimated spill end date/time: : Date Format: MM/DD/YYYY

** 21 - Spill cause:

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

** 23 - Where did failure occur?

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

** 25 - Was this spill associated with a storm event?

26 - Diameter of sewer pipe at the point of blockage or failure: inches

27 - Material of sewer pipe at the point of blockage or failure:

28 - Estimated age of sewer asset at the point of blockage or failure:

29 - Explanation of volume estimation methods used:
(Describe how you developed spill volume estimates for this spill)

* 30(a) - Name and Tittle (Contact person who can answer specific questions about this SSO)

* 30(b) - Contact Person Phone Number

6.1 NO SPILL CERTIFICATION



[Menu](#) | [Help](#) | [Log out](#)

Navigate to:

You are logged-in as: SSO Demo . If this account does not belong to you, please log out.

SSO - No Spill Certification [?](#) [SSO Menu](#)

Regional Water Board: Region 5S - Sacramento
Agency: State Water Resources Control Board
Sanitary Sewer System: Demo South CS
WDID: 5SSO10000

No Spill Certification:

I certify under penalty of law that no spills occurred for the month specified below. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine or imprisonment, for knowing violations. Clicking the "Certify" button below indicates my certification of this report and my understanding of the above conditions.

Month/Year Without Spills:

Certifier Name*:


Certifier Title*:

Executed On*:

Executed At*:

Previously Submitted Months with "No Spill Certification"

Confirmation Number	No Spill Certificate for the Month of	Entered Date/Time	Certified UserID	Certified Name
2362863	February 2013	2013-7-19.13.39. 26. 0	SSO Demo	d
2362859	January 2013	2013-7-17.14.51. 11. 0	SSO Demo	test
2306210	September 2011	2011-11-10.9.34. 37. 0	SSO Demo	Test
2294930	January 2011	2011-7-15.11.57. 22. 0	SSO Demo	
2253851	July 2010	2010-8-19.8.59. 38. 0	SSO Demo	
2247649	June 2010	2010-7-7.13.43. 35. 0	SSO Demo	
2239286	April 2010	2010-4-29.11.10. 18. 0	SSO Demo	
2212902	December 2009	2009-11-9.8.19. 48. 0	SSO Demo	
821795	December 2009	2009-4-9.7.47. 6. 0	SSO Demo	
2199725	August 2009	2009-8-31.7.18. 33. 0	SSO Demo	
2186309	July 2009	2009-7-13.10.4. 36. 0	SSO Demo	
2186308	July 2009	2009-7-13.9.47. 7. 0	SSO Demo	
829411	June 2009	2009-5-27.16.9. 12. 0	SSO Demo	
821794	April 2009	2009-4-9.7.42. 29. 0	SSO Demo	
826402	March 2009	2009-5-11.8.26. 15. 0	SSO Demo	
821793	March 2009	2009-4-9.7.41. 39. 0	SSO Demo	
821792	March 2009	2009-4-9.7.28. 7. 0	SSO Demo	
803308	November 2008	2008-11-12.15.7. 17. 0	SSO Demo	
803281	October 2008	2008-11-12.10.16. 34. 0	SSO Demo	
803282	October 2008	2008-11-12.10.18. 7. 0	SSO Demo	
821791	April 2008	2009-4-9.7.25. 16. 0	SSO Demo	
2182154	February 2008	2009-7-1.10.40. 39. 0	SSO Demo	
803303	January 2008	2008-11-12.14.1. 34. 0	SSO Demo	
2174848	December 2007	2009-6-22.13.7. 40. 0	SSO Demo	
2232727	January 2007	2010-3-8.11.33. 49. 0	SSO Demo	
2248328	August 2006	2010-7-12.9.40. 51. 0	SSO Demo	
491397	February 2006	2007-4-10.9.41. 34. 0	SSO Demo	

Emergency Operating Procedure		Document No:
 Cuesta Community College District		SS-EOP-03
Title:		Revision:
SSO TRAFFIC AND CROWD CONTROL		0
Approved by:	Prepared by:	Page:
Terry Reece <i>Director of Facilities Services,</i> Cuesta Community College District	Bill Callahan <i>Director of Public Works</i> <i>Administration, Wallace Group</i>	1 of 3
		Effective Date:
		3/30/2016

1. Health and Safety Warnings

1. Cuesta Community College District (District) Staff are required to follow the District's safety practices and procedures. 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); and
 - c. District's Illness and Injury Prevention Program (IIPP).
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

2. Cautions

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

ID No.:	SS-EOP-03
Rev. No.:	0
Date:	3/30/2016
Page:	2 of 3

3. Interferences

1. This section is not applicable to this EOP.

4. Personnel Qualifications and Responsibilities

1. Director of Facilities Services
 - a. Responsible for training all staff responsible for SSO Response are trained on this EOP annually.
 - b. Responsible for managing, maintaining, and updating this EOP.
2. Contractors called out for SSO Response
 - a. Required to work under the direction of District Staff in an SSO event.

5. Equipment and Supplies

1. Manual for Uniform Traffic Control Devices (MUTCD) 1993: Part VI: 6C - Temporary Traffic Control Elements
2. Personal Protective Equipment (PPE):
 - a. Gloves
 - b. Steel Toed Boots
 - c. Safety Glasses
 - d. Safety Vest
3. Traffic and Crowd Control Equipment:
 - a. Orange Cones
 - b. Traffic Barricades
 - c. Warning and Traffic Control Signs
 - d. Handheld Warning and Traffic Control Signs
 - e. Traffic Beacons
 - f. Caution Tape
 - g. Steel Plates
 - h. Asphalt
4. Cell Phone

6. Procedure

Traffic Control

1. Cuesta Community College District Staff follows the Manual for Uniform Traffic Control Devices: Part VI: 6C – Temporary Traffic Control Elements for all traffic control.

Crowd Control

1. District Staff depends on the Cuesta Community College District Police Department to perform crowd control.
 - a. If crowd control is needed District Staff calls the Police Department at (805) 546-3100 x3205, which contacts the Police Department, and requests support for crowd control.

ID No.:	SS-EOP-03
Rev. No.:	0
Date:	3/30/2016
Page:	3 of 3

7. Data and Records Management

1. Photographs should 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-05: SSO Mitigation and Cleanup.

8. Quality Control and Quality Assurance

1. The Director of Facilities Services is responsible for reviewing and evaluating the records of completed traffic and crowd control.
2. The Director of Facilities Services is responsible for reviewing, evaluating, revising, and updating this EOP.

9. References

1. MUTCD 1993: Part VI -Section 6C (attached)
2. SS-EOP-05: SSO Mitigation and Cleanup
3. WDR: Order No. 2006-0003-DWQ

10. Attachments

1. Manual for Uniform Traffic Control Devices: Part VI: 6C – Temporary Traffic Control Elements



EOP #3 Traffic Control Attachment 1:
MUTC Part VI – Temporary Traffic Control

U.S Department of Transportation: Federal Highway Administration
Part VI: Standards and Guides for Traffic Controls for Street and Highway
Construction, Maintenance, Utility and Incident Management Operations (1988
Edition, Revision 3, 1993)

6C. Temporary Traffic Control Elements

6C-1. TRAFFIC CONTROL PLANS

Traffic Control Plans (TCP's) play a vital role in providing continuity of safe and efficient traffic flow, to the extent interruptions in normal flow are necessary for temporary traffic control operations or other events that must temporarily disrupt normal traffic flow. Important auxiliary provisions that cannot conveniently be specified on project plans can easily be incorporated into Special Provisions within the TCP.

A TCP describes traffic controls to be used for facilitating vehicle and pedestrian traffic through a temporary traffic control zone. The plan may range in scope from being very detailed, to merely referencing typical drawings contained in the MUTCD, standard approved highway agency drawings and manuals, or specific drawings contained in contract documents. The degree of detail in the TCP depends entirely on the complexity of the situation, and TCP's should be prepared by persons knowledgeable about the fundamental principles of temporary traffic control and the work activities to be performed.

Traffic control planning requires forethought. Provisions may be incorporated into the project bid documents that enable contractors to develop alternate traffic control plans, which may be used only if the responsible agency finds they are as good as those provided in the plans/specifications. For maintenance and minor utility projects that do not require bidding, forethought must be given to selecting the best traffic control before occupying the temporary traffic control zone. Also, coordination must be made between projects to ensure that duplicate signing is not used and to ensure compatibility of traffic control between adjacent projects.

Modifications of TCP's may be necessary because of changed conditions or determination of even better ways of handling traffic safely and efficiently, while permitting efficient temporary traffic control activities to progress.

6C-2. DEFINITION OF TEMPORARY TRAFFIC CONTROL ZONE COMPONENTS

The temporary traffic control zone includes the entire section of roadway between the first advance warning sign through the last traffic control device, where traffic returns to its normal path and conditions. Most temporary traffic control zones can be divided into four areas: the advance warning area, the transition area, the activity area, and the termination area. Figure VI-1 illustrates these four areas. The four components that constitute a temporary traffic control zone are described in the order that drivers encounter them. They include the following:

U.S Department of Transportation: Federal Highway Administration
Part VI: Standards and Guides for Traffic Controls for Street and Highway
Construction, Maintenance, Utility and Incident Management Operations (1988
Edition, Revision 3, 1993)

a. *Advance Warning Area*

In the advance warning area, drivers are informed of what to expect. The advance warning may vary from a single sign or flashing lights on a vehicle to a series of signs in advance of the temporary traffic control zone transition area. On freeways and expressways, where driver speed is generally in the higher range (45 mph or more), signs may be placed from 500 feet to ½ mile or more before the temporary traffic control zone. The true test of adequacy of sign spacing is to evaluate how much time the driver has to perceive and react to the condition ahead. In this regard, the use of speed, roadway condition, and related driver expectancy must be considered in order to derive a practical sign spacing distance. As a guide, table II-1 in section 2C-3 should be used in conjunction with consideration of actual or anticipated field conditions. Effective placement of warning signs for urban and rural locals is as follows:

1. *Urban*

Warning sign spacing in advance of the transition area normally range from four to eight times the speed (mph) in feet, with the high end of the range being used when speeds are relatively high. When single advance warning signs are used (as in the case of low-speed residential streets), the advance warning area can be as short as 200 feet. When two or more advance signs are used on higher-speed streets such as major arterials, the advance warning area should extend a greater distance. (See table VI-3.)

2. *Rural*

Rural roadways are characterized by higher speeds. Spacing for the placement of warning signs is substantially longer—from 8 to 12 times the speed (mph) in feet. Two or more advance warning signs are normally used in these conditions, the advance warning area should extend 1,500 feet or more in open highway conditions. (See table VI-3.)

Advance warning is normally not needed when the activity area is sufficiently removed from the driver's path that it does not interfere with traffic.

b. *Transition Area*

When redirection of the driver's normal path is required, traffic must be channelized from the normal path to a new path. This redirection is intended to occur at the beginning of the transition area. In mobile operations, this transition area moves with the work space. Transition areas usually involve strategic use of tapers, which (because of their importance) are discussed in more detail in section 6C-3.

c. *Activity Area*

The activity area is an area of roadway where the work takes place. It is composed of the work space and the traffic space, and may contain one or more buffer spaces.

U.S Department of Transportation: Federal Highway Administration
Part VI: Standards and Guides for Traffic Controls for Street and Highway
Construction, Maintenance, Utility and Incident Management Operations (1988
Edition, Revision 3, 1993)

1. *Work Space*

The work space is that portion of the roadway closed to traffic and set aside for workers, equipment, and material. Work space may be fixed or may move as work progresses. Long-term work spaces are usually delineated by channelizing devices or shielded by barriers to exclude traffic and pedestrians.

2. *Traffic Space*

The traffic space is the portion of the roadway in which traffic is routed through the activity area.

3. *Buffer Space*

The buffer space is an optional feature in the activity area that separates traffic flow from the work activity or a potentially hazardous area and provides recovery space for an errant vehicle. Neither work activity nor storage of equipment, vehicles, or material should occur in this space. Buffer spaces may be positioned longitudinally and laterally, with respect to the direction of traffic flow.

1. *Longitudinal Buffer Space*

The longitudinal buffer space may be placed in the initial portion of a closed lane in advance of the work space, as shown in figure VI-1. When a protection vehicle is placed in advance of the work space, only the space upstream of the vehicle constitutes the buffer space.

The longitudinal buffer space, as depicted in figure VI-2, should be used where a closed lane separates opposing traffic flows. Typically, it is formed as a traffic island and defined by channelizing devices.

A guide for the length of longitudinal buffer space is shown in table VI-1. The length may be adjusted to satisfy individual agency needs.

2. *Lateral Buffer Space*

A lateral buffer space may be used to separate the traffic space from the work space, as shown in figure VI-1, or a potentially hazardous area, such as an excavation or pavement drop-off. A lateral buffer space also may be used between two travel lanes, especially those carrying opposing flows. The width of the lateral buffer space should be determined by engineering judgment.

**U.S Department of Transportation: Federal Highway Administration
Part VI: Standards and Guides for Traffic Controls for Street and Highway
Construction, Maintenance, Utility and Incident Management Operations (1988
Edition, Revision 3, 1993)**

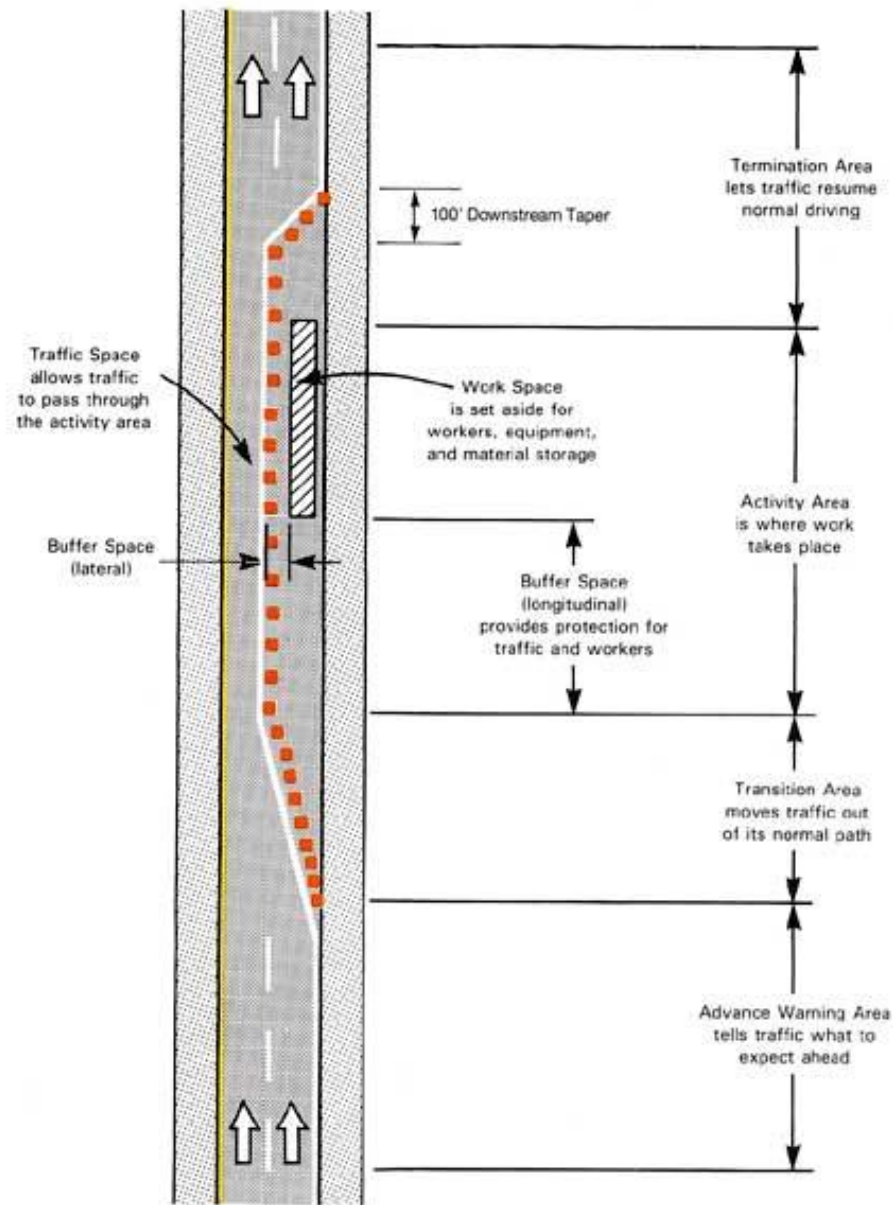


Figure VI-1. Component parts of a temporary traffic control zone.

**U.S Department of Transportation: Federal Highway Administration
Part VI: Standards and Guides for Traffic Controls for Street and Highway
Construction, Maintenance, Utility and Incident Management Operations (1988
Edition, Revision 3, 1993)**

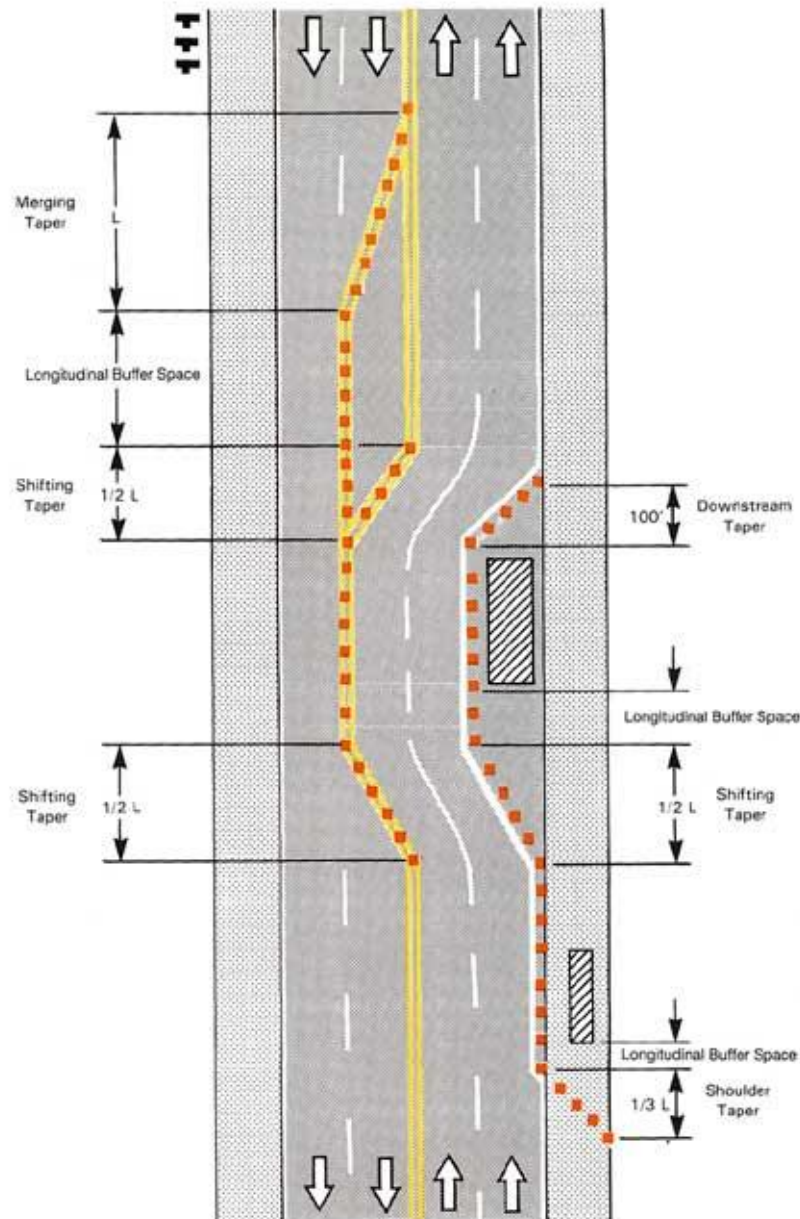


Figure VI-2. Tapers and buffer space.

**U.S Department of Transportation: Federal Highway Administration
Part VI: Standards and Guides for Traffic Controls for Street and Highway
Construction, Maintenance, Utility and Incident Management Operations (1988
Edition, Revision 3, 1993)**

Table VI-1. Guidelines for length of longitudinal buffer space¹

Speed[±] (mph)	Length (feet)
20	35
25	55
30	85
35	120
40	170
45	220
50	280
55	335
60	415
65	485

* Posted speed, off-peak 85th percentile speed prior to work starting, or the anticipated operating speed in mph.

4. *Incident Management Vehicle Storage Space*

When work occurs on a high-volume, highly congested facility in an urban area, it is optional to allow space to store emergency vehicles (e.g., tow trucks) to respond quickly to traffic incidents. The storage space is typically provided at the beginning or end of the activity area, or both. An emergency vehicle storage area should not extend into any portion of the buffer space.

d. *Termination Area*

The termination area is used to return traffic to the normal traffic path. The termination area extends from the downstream end of the work area to the END ROAD WORK signs, if posted. Conditions may be such that posting of END ROAD WORK signs is not helpful. For example, the END ROAD WORK signs should normally not be used if other temporary traffic control zones begin within a mile of the end of the work space in rural areas, or about a quarter-mile within urban areas. For normal daytime maintenance operations, the END ROAD WORK SIGN is optional.

**U.S Department of Transportation: Federal Highway Administration
Part VI: Standards and Guides for Traffic Controls for Street and Highway
Construction, Maintenance, Utility and Incident Management Operations (1988
Edition, Revision 3, 1993)**

6C-4. DETOURS AND DIVERSIONS

At detours, traffic is directed onto another roadway to bypass the temporary traffic control zone. Detours should be signed clearly over their entire length so that motorists can easily determine how to return to the original roadway.

At diversions, traffic is directed onto a temporary roadway or alignment placed in or next to the right-of-way, e.g., median crossovers or lane shifts.

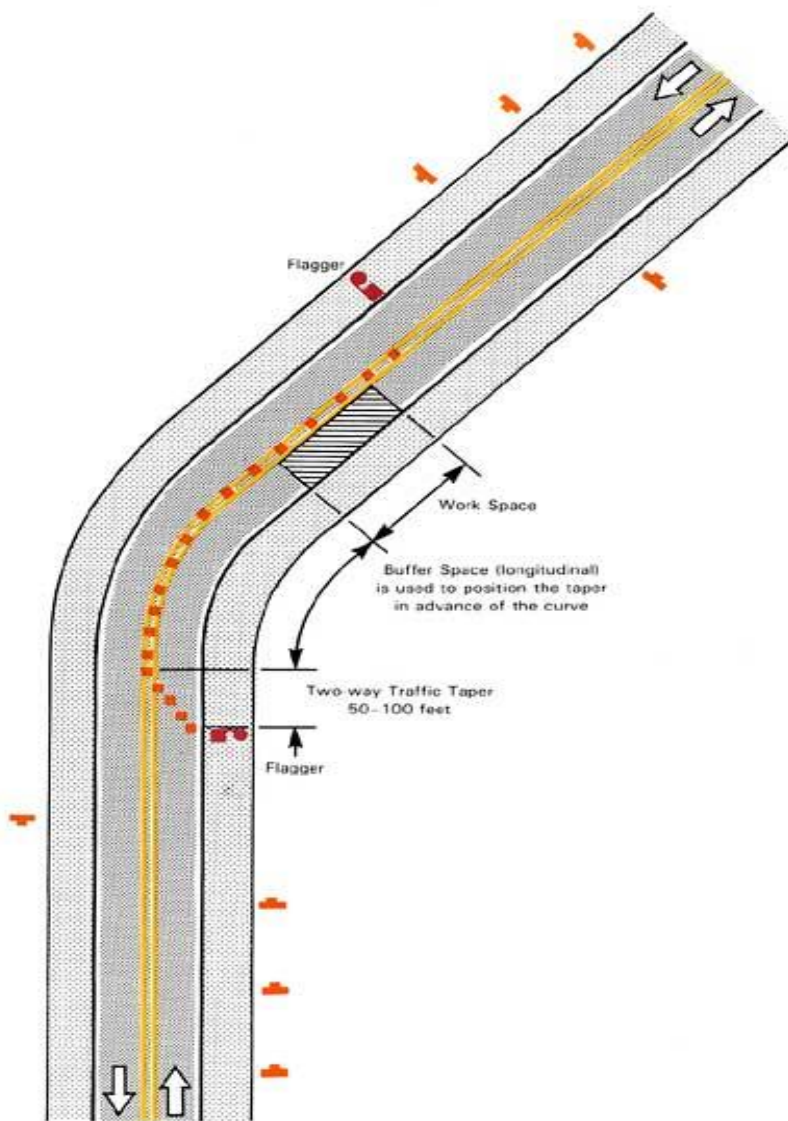



Figure VI-3. Example of one lane-two way traffic control.

**U.S Department of Transportation: Federal Highway Administration
Part VI: Standards and Guides for Traffic Controls for Street and Highway
Construction, Maintenance, Utility and Incident Management Operations (1988
Edition, Revision 3, 1993)**

6C-6. TRANSIT CONSIDERATIONS

Provision for effective continuity of transit service needs to be incorporated into the temporary traffic control planning process. Oftentimes, public transit buses cannot efficiently be detoured in the same manner as other vehicles (particularly for short-term maintenance projects). On transit routes, the TCP shall provide for features such as temporary bus stops, pull-outs, and waiting areas for transit patrons.

¹ Based upon American Association of State Highway and Transportation Officials (AASHTO) braking distance portion of stopping sight distance for wet and level pavements (A Policy on Geometric Design of Highways and Streets, AASHTO, 1990, p. 120). This AASHTO document also recommends adjustments for the effect Of grade on stopping and variation for trucks.

Emergency Operating Procedure		Document No:
 Cuesta Community College District		SS-EOP-04
Title:		Revision:
SSO VOLUME ESTIMATION		0
Issued by:	Prepared by:	Page:
Terry Reece <i>Director of Facilities Services,</i> Cuesta Community College District	Bill Callahan <i>Director of Public Works</i> <i>Administration,</i> Wallace Group	1 of 6
		Effective Date:
		3/30/2016

1. Health and Safety Warnings

1. Cuesta Community College District (District) Staff are required to follow the District's safety practices and procedures. 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); and
 - c. District's Illness and Injury Prevention Program (IIPP).
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

2. Cautions

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

ID No.:	SS-EOP-04
Rev. No.:	0
Date:	3/30/2016
Page:	2 of 6

3. 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. District Staff will need to be able to estimate the total SSO volume after responding to the SSO and defend the SSO volume estimate. Therefore, District 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. District Staff needs to maintain a record of all of the information utilized to calculate the volume estimate.

4. 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.
 - 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. Director of Facilities Services
 - a. Responsible for reviewing and approving all SSO volume estimates before they are reported.
 - b. Responsible for training all District 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.
 - e. Responsible for reviewing and/or assisting with SSO volume estimations.
4. District Staff and Contractors Responsible for SSO Response
 - a. Required to be trained on this EOP annually.

5. 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 and Flow Rate Method Worksheet
 - d. Attachment 4: Southern Section Collection System Committee Manhole Overflow Gauge
2. Tape Measure

ID No.:	SS-EOP-04
Rev. No.:	0
Date:	3/30/2016
Page:	3 of 6

3. Camera
4. Pen
5. Personal Protective Equipment (PPE):
 - a. Gloves
 - b. Rubber Boots
 - c. Safety Glasses
 - d. Flashlights
 - e. Safety Vest

6. 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. A secondary estimation method should also be used to calculate the SSO volume to cross check the results of the initial estimate. 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 District Staff with deriving a SSO volume estimate and to document District SSO response activities. However, taking photographs should not interfere with the first 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. Picture 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.
4. Use Attachment 5: *Southern Section Collection System Committee Manhole Overflow Gauge* to assist with this eyeball estimate.

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.

ID No.:	SS-EOP-04
Rev. No.:	0
Date:	3/30/2016
Page:	4 of 6

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 members of the public 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:
 - i. **Manhole Flow Rate Chart**
 1. Use Attachment 3 and 5 of this EOP, Active SSO Estimation Worksheet and SSCSC Manhole Overflow Gauge, 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 District Engineer may provide the flow rate based on the District'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).

ID No.:	SS-EOP-04
Rev. No.:	0
Date:	3/30/2016
Page:	5 of 6

5. To check flow rate calculations as described above with average flow rates at the manhole/sewer line in question, use the Flow Rate Method Worksheet and Flow Calculation Worksheet to calculate average flow rates. Use the number calculated as the Profiled Flow at the bottom of the Flow Calculation Worksheet. Integrate this Flow Rate into the Volume Estimate formula found above and on the Flow Rate Method Worksheet as a spill volume to compare with the estimated SSO Volume determined using methods identified in 3.a.i and 3.a.ii above.

7. Data and Records Management

1. The Director of Facilities Services will maintain all SSO volume calculations and supporting documents at the Facilities Maintenance 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
 - 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.

8. Quality Control and Quality Assurance

1. LRO
 - a. Responsible for the final review and approval of the SSO volume estimation prior to reporting.

ID No.:	SS-EOP-04
Rev. No.:	0
Date:	3/30/2016
Page:	6 of 6

9. 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)

10. Attachments

1. Measured Volume SSO Estimation Worksheet
2. Area and Volume SSO Estimation Guide
3. Active SSO Estimation Worksheet
4. Flow Rate Method Worksheet
5. Southern Section Collection System Committee Manhole Overflow Gauge



SSO VOLUME ESTIMATION ATTACHMENT 1:
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)



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.**



SSO VOLUME ESTIMATION ATTACHMENT 2:
Area and Volume 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'

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

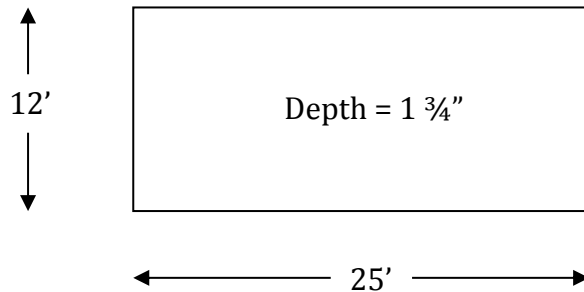
Area is two dimensional and is represented as Square Feet (SQ/FT)

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

One Cubic Foot can hold 7.48 gallons

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')

$$25' \times 12' \times 0.14' = 42 \text{ Cubic Feet.}$$

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 feet = **314 Gallons**

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'

AREA/VOLUME OF A RIGHT TRIANGLE

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

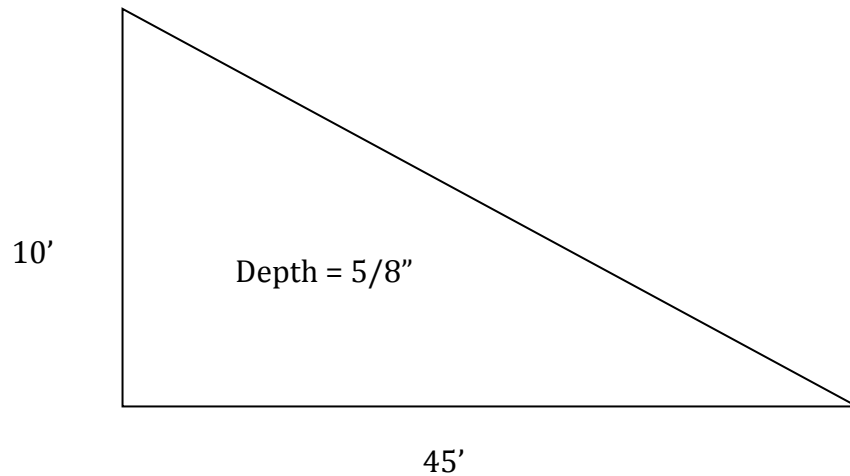


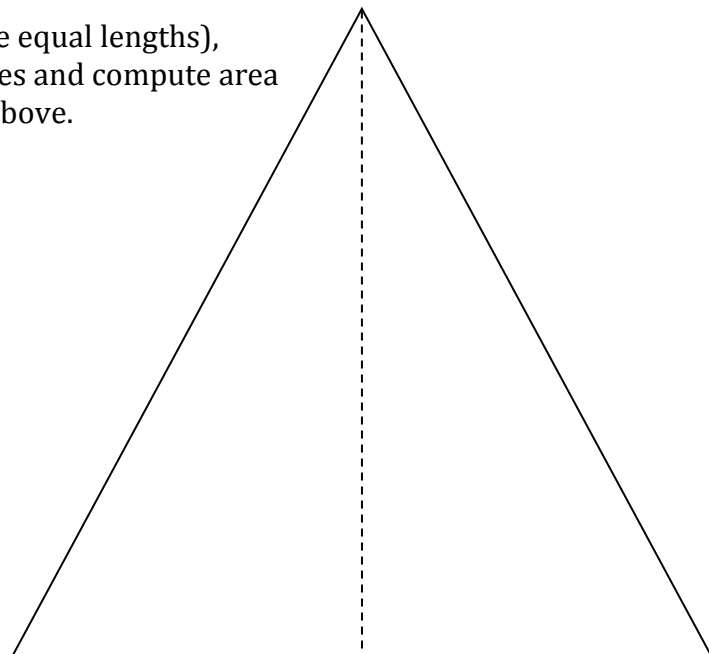
Chart A

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'

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.



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:

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

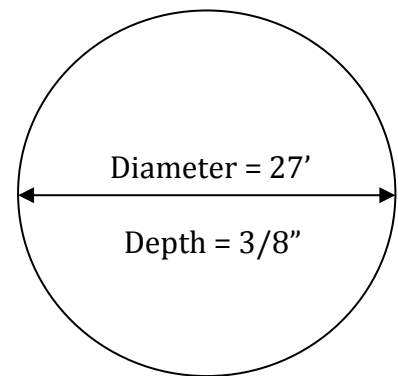
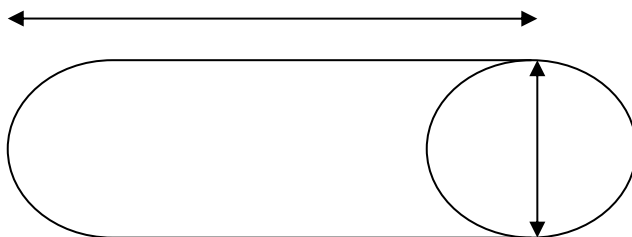
$$17.17 \text{ cubic feet} \times 7.48 \text{ gallons/cubic foot} = \underline{\underline{128 \text{ gallons}}}$$

Chart - A

Conversion:

Inches to Feet

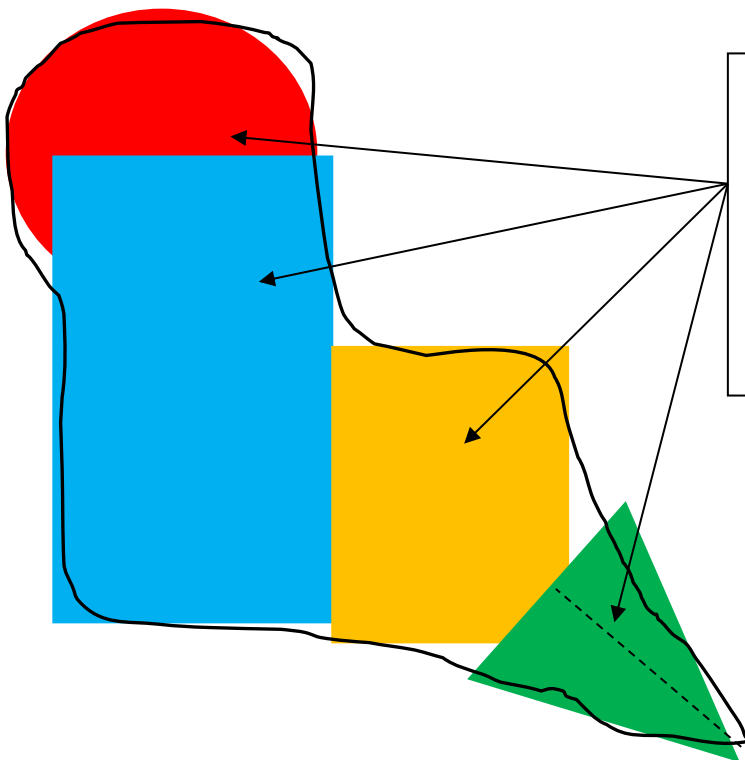
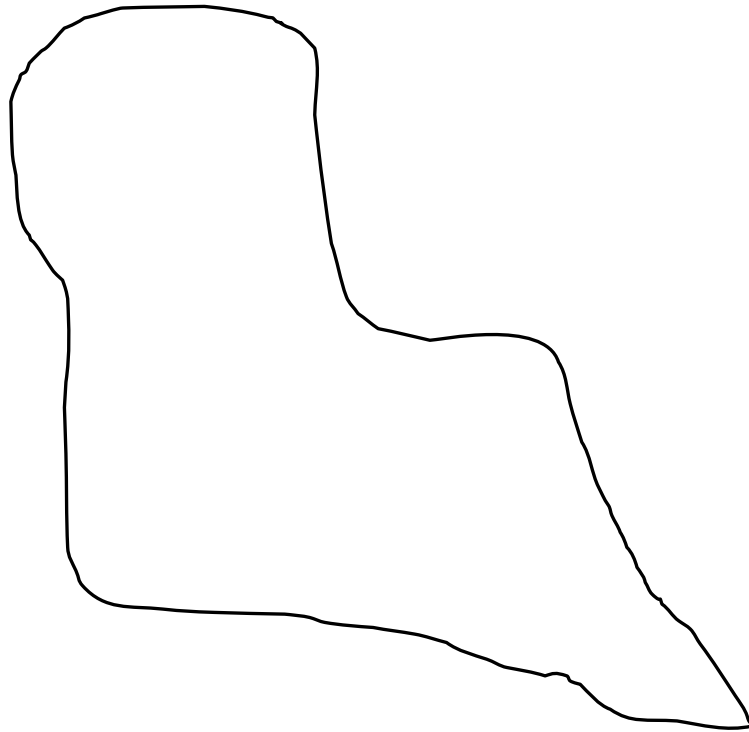
1/8"	=	0.01'
1/4"	=	0.02'
3/8"	=	0.03'
1/2"	=	0.04'
5/8"	=	0.05'
3/4"	=	0.06'
7/8"	=	0.07'
1"	=	0.08'
2"	=	0.17'
3"	=	0.25'
4"	=	0.33'
5"	=	0.42'
6"	=	0.50'
7"	=	0.58'
8"	=	0.67'
9"	=	0.75'
10"	=	0.83'
11"	=	0.92'
12"	=	1.00'



Areas and Volumes

SSO Estimation Guide

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.

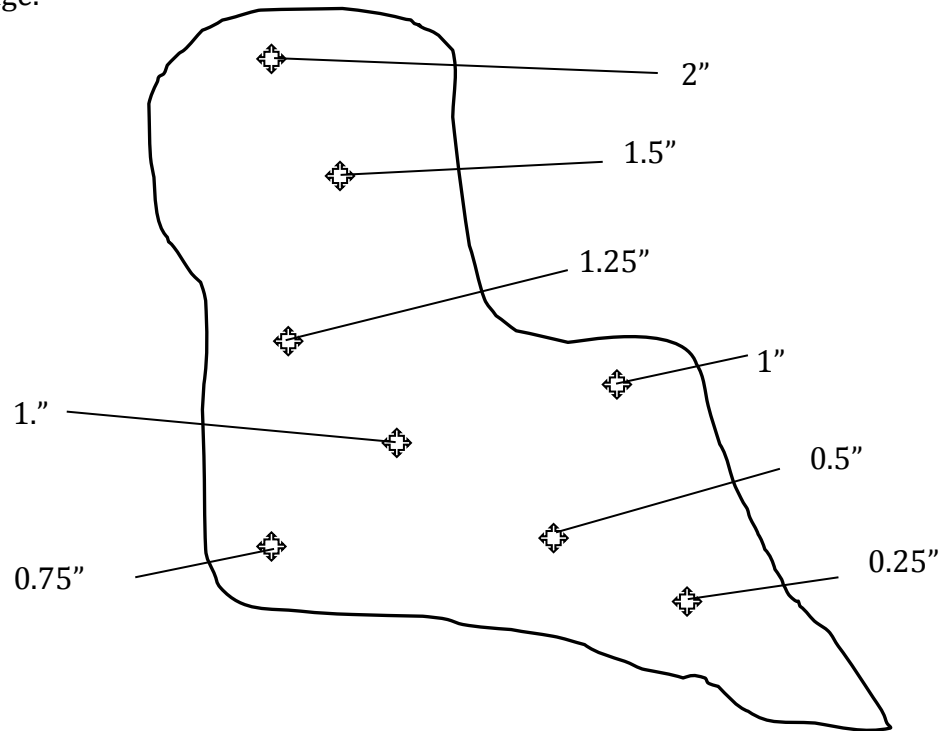
In this example, after the volume of the circle is determined, multiply it by 55% (+/-) so that the overlap area won't be counted twice.

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.



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

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

$$\text{Average Depth} = 1.03''$$

Step 1

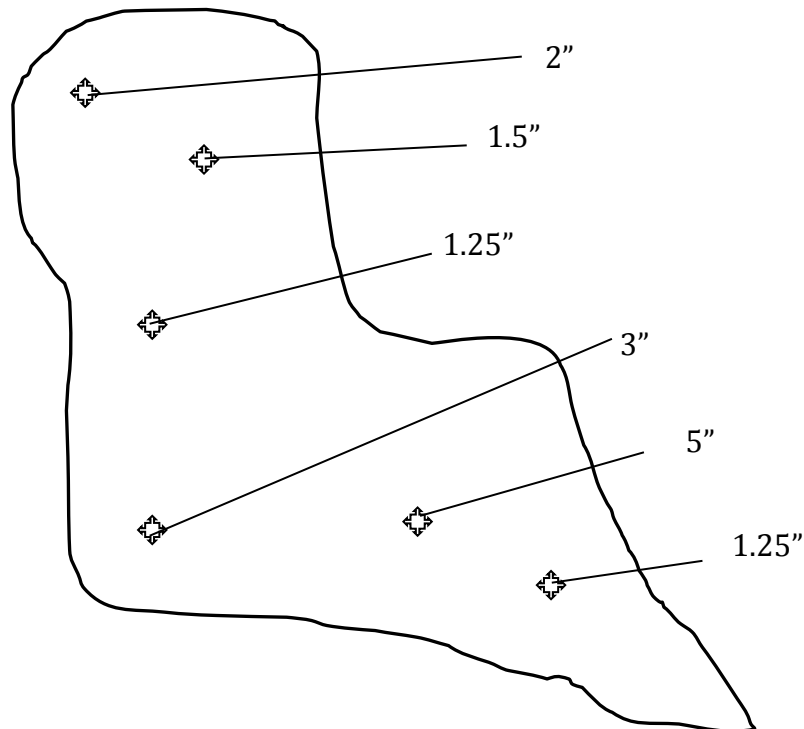
If the spill affects a dry, unimproved area such as a field or dirt parking lot, determine the Area of the wetted ground in the same manner as you would on a hard surface. Using a round-point shovel, dig down into the soil until you find dry soil. Do this in several locations within the wetted area and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

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

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

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

(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 ($D^2 \times 0.785$) $2.16' \times 2.16' \times 0.785 = 3.66 \text{ Sq/Ft}$
7. Multiply the Area by the Average Depth to get the Volume ($3.66 \times 0.215' = 0.79 \text{ Cu/Ft}$)
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.

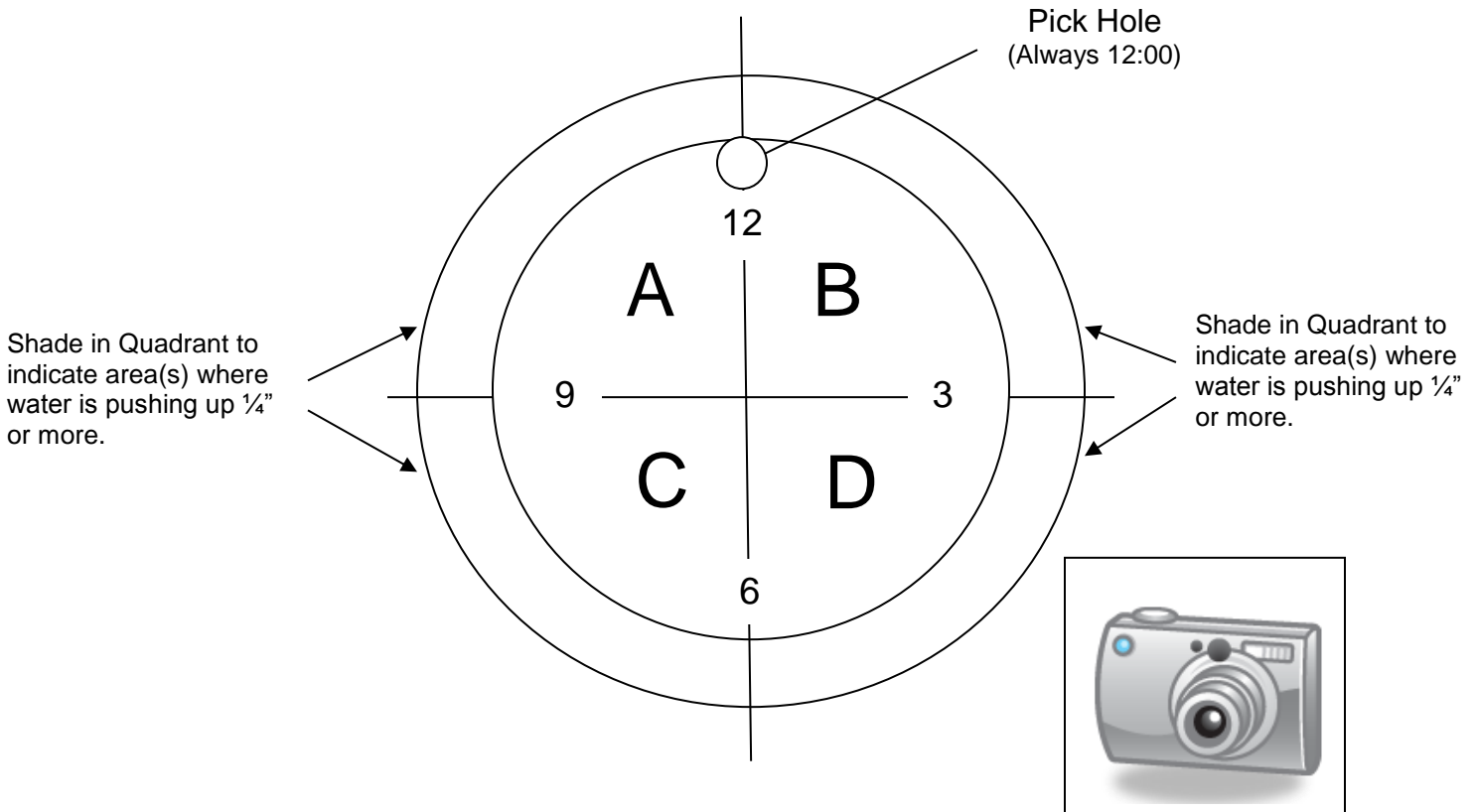


SSO VOLUME ESTIMATION ATTACHMENT 3:
Active SSO Estimation Worksheet

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)

**Active SSO Estimation Worksheet
Sample Templates for SSO Volume Estimation**

**TABLE 'A'
ESTIMATED SSO FLOW OUT OF M/H WITH COVER IN PLACE
AND WITH M/H COVER REMOVED**

24" Frame			36" Frame		
Height of spout above rim: inches	SSO Flow: GPM covered M/H	SSO Flow: GPM uncovered M/H	Height of spout above rim: inches	SSO Flow: GPM covered M/H	SSO Flow: GPM uncovered M/H
.25	1	62	.25	1	111
.5	3	160	.5	4	271
.75	6	354	.75	8	458
1.0	9	799	1.0	13	660
1.25	12	1340	1.25	18	1486
1.5	16	1986	1.5	24	2424
1.75	21	2799	1.75	31	3382
2.0	25	3444	2.0	37	4458
2.25	31	3986	2.25	45	5556
2.5	38	4437	2.5	55	6764
2.75	45	4687	2.75	66	7972
3.0	54	4910	3.0	78	9062
3.25	64	*	3.25	93	10139
3.5	75		3.5	109	11097
3.75	87		3.75	127	12035
4.0	100		4.0	147	12861
4.25	115		4.25	169	13285
4.5	131		4.5	192	*
4.75	148		4.75	217	
5.0	166		5.0	243	
5.25	185		5.25	270	
5.5	204		5.5	299	
5.75	224		5.75	327	
6.0	244		6.0	357	
6.25	265		6.25	387	
6.5	286		6.5	419	
6.75	308		6.75	451	
7.0	331		7.0	483	
7.25	354	7.25	517		
7.5	377	7.5	551		
7.75	401	7.75	587		
8.0	426	8.0	622		

**Uncovered GPM estimates for 24" and 36" Manholes stop at 3" and 4.25" respectively as they would require gravity sewer lines in excess of 24" and 36" to create conditions allowing for flow rates to exceed these estimates.*

**Active SSO Estimation Worksheet
Sample Templates for SSO Volume Estimation**

Table "B"

ESTIMATED SSO FLOW FROM PICK HOLE
Estimates for 7/8" Pick Hole

Height of Spout Above M/H Cover in Inches	SSO Flow in GPM
.16 (1/8)	1.0
.25 (1/4)	1.4
.5 (1/2)	1.9
.75 (3/4)	2.4
1.0	2.7
1.25	3.1
1.5	3.4
1.75	3.6
2.0	3.9
2.25	4.1
2.5	4.3
2.75	4.5
3.0	4.7
3.25	4.9
3.5	5.1
3.75	5.3
4.0	5.5
4.25	5.6
4.5	5.8
4.75	6.0
5.0	6.1
5.25	6.3
5.5	6.4
5.75	6.6
6.0	6.7
6.25	6.8
6.5 <i>(unrestrained M/H cover will start to lift)</i>	7.0
6.75	7.1
7.0	7.2
7.25	7.4
7.5	7.5
7.75	7.6
8.0	7.7
8.25	7.9
8.5	8.0
8.75	8.1
9.0	8.2
9.25	8.3
9.5	8.4
9.75	8.5
10.0	8.7



SSO VOLUME ESTIMATION ATTACHMENT 4:
Flow Rate Method Worksheet



Flow Rate Method Worksheet

Completed By: _____

Measuring Manhole: _____

How was Flow Rate Determined?

(Attach worksheets, reports, etc. used in determination)

- Flow Calculation Work Sheet; Determined Flow Rate: _____ GPM
- Active Spill Estimation Worksheet; Determined Flow Rate _____ GPM
- Flow Monitoring Equipment;

If Flow Monitoring Equipment:

Measuring Period: From _____/_____/_____ at _____:_____

To _____/_____/_____ at _____:_____

Average Flow Rate During Same Time of Day as Spill Occurred: _____ GPM

Flow Measured - Downstream Manhole ID: _____; Flow _____ GPM

(See SSO Response Field Check List for Downstream flow information)

(Attach Flow Calculation Worksheet)

Diurnal Flow Pattern applied: _____

Comments: _____

Duration: _____ + Flow Rate (GPM) _____ = Spill Volume _____ Gals



Flow Rate Method Worksheet
Calculation Worksheet

Date: _____ Manhole #: _____ Pipe Diameter: _____

Site Location: _____

Calculate/Determine Velocity (V)

Velocity: _____ ft/sec

Calculate Diameter D²

(Inside diameter: _____ inches/12)²

Calculate to Diameter Ratio (Level/Diameter)

Level: _____ (inches) Inside Diameter: _____ (inches) = L/D: _____

Identify Flow Unit Multiplier (K) in Table Using L/D

L/D \approx K = _____ *(MGD, GPM, CFS) *Refer to Table on Back*

Profiled Flow

V: _____ (x) D²: _____ (x) K: _____ = _____ () *Unit of Measurement – MGD, GPM, CFS*

Table I Flow Unit Multiplier

L/D	K (Flow Unit Multiplier)					
	MGD	GPM	CFS	CMM	CMD	LPM
.01	.0009	.5966	.0013	.0023	3.2522	2.2585
.02	.0024	1.6824	.0037	.0063	9.1709	6.3687
.03	.0044	3.0814	.0069	.0117	16.7986	11.6644
.04	.0068	4.7296	.0105	.0179	25.7811	17.9036
.05	.0095	6.5894	.0147	.0249	35.9190	24.9438
.06	.0124	8.6351	.0192	.0327	47.0701	32.6876
.07	.0156	10.8475	.0242	.0411	59.1295	41.0621
.08	.0190	13.2113	.0294	.0500	72.0148	50.0103
.09	.0226	15.7143	.0350	.0595	85.6585	59.4851
.10	.0264	18.3460	.0409	.0694	100.0039	69.4471
.11	.0304	21.0975	.0470	.0799	115.0022	79.8627
.12	.0345	23.9609	.0534	.0907	130.6108	90.7020
.13	.0388	26.9294	.0600	.1019	146.7919	101.9388
.14	.0432	29.9967	.0668	.1135	163.5116	113.5497
.15	.0477	33.1571	.0739	.1255	180.7393	125.5134
.16	.0524	36.4056	.0811	.1378	198.4467	137.8102
.17	.0572	39.7374	.0885	.1504	216.6081	150.4223
.18	.0621	43.1480	.0961	.1633	235.1995	163.3330
.19	.0672	46.6334	.1039	.1765	254.1985	176.5267
.20	.0723	50.1898	.1118	.1900	273.5844	189.9892
.21	.0775	53.8135	.1199	.2037	293.3373	203.7064
.22	.0828	57.5012	.1281	.2177	313.4387	217.6657
.23	.0882	61.2496	.1365	.2319	333.8710	231.8548
.24	.0937	65.0555	.1449	.2463	354.6172	246.2619
.25	.0992	68.9161	.1535	.2609	375.6613	260.8759
.26	.1049	72.8286	.1623	.2757	396.9880	275.6861
.27	.1106	76.7901	.1711	.2907	418.5825	290.9823
.28	.1163	80.7982	.1800	.3059	440.4305	305.8545
.29	.1222	84.8503	.1890	.3212	462.5182	321.1932
.30	.1281	88.9439	.1982	.3367	484.8325	336.3892
.31	.1340	93.0767	.2074	.3523	507.3605	352.3337
.32	.1400	97.2464	.2167	.3681	530.0894	368.1176
.33	.1461	101.4507	.2260	.3840	553.0071	384.0327
.34	.1522	105.6875	.2355	.4001	576.1017	400.0706
.35	.1583	109.9546	.2450	.4162	599.3618	416.2234
.36	.1645	114.2500	.2545	.4325	622.7757	432.4831
.37	.1707	118.5715	.2642	.4488	646.3325	448.8419
.38	.1770	122.9172	.2739	.4653	670.0208	465.2922
.39	.1833	127.2851	.2836	.4818	693.8301	481.8265
.40	.1896	131.6733	.2934	.4984	717.7501	498.4375
.41	.1960	136.0797	.3032	.5151	741.7607	515.1178
.42	.2023	140.5026	.3130	.5319	765.8788	531.8603
.43	.2087	144.9400	.3229	.5487	790.0673	548.6578
.44	.2151	149.3902	.3328	.5655	814.3250	565.5034
.45	.2215	153.8512	.3428	.5824	838.6420	582.3902
.46	.2280	158.3212	.3527	.5993	863.0080	599.3111
.47	.2344	162.7985	.3627	.6163	887.4133	616.2592
.48	.2409	167.2811	.3727	.6332	911.8480	633.2277
.49	.2473	171.7673	.3827	.6502	936.3024	650.2100
.50	.2538	176.2553	.3927	.6672	960.7664	667.1989

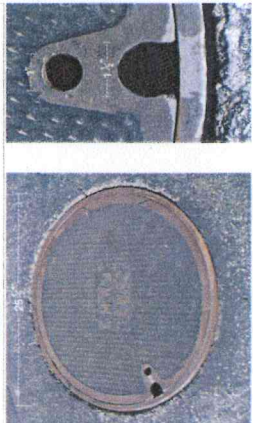


SSO VOLUME ESTIMATION ATTACHMENT 5:
Southern Section Collection System Committee Manhole
Overflow Gauge

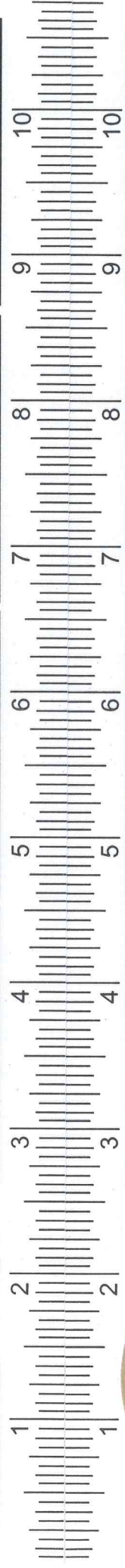


SSCSC MANHOLE OVERFLOW GAUGE

Overflow Simulation
Courtesy of
Eastern Municipal Water District



DISCLAIMER: This overflow simulation may appear differently from those in other systems because of the manhole lid pick hole configuration. Manhole lids with single or multiple pick holes may appear differently during overflow conditions. However, the volume of exfiltration and the footprint of the wet area should appear relatively the same under similar slope conditions.




PROVIDING QUALITY TRAINING FOR COLLECTION SYSTEM PERSONNEL SINCE 1991

Mission Statement: To continuously increase the level of professionalism of Collection Systems personnel involved in the operation, maintenance, design and construction of Wastewater Collection Systems, by providing education and training, taking an active role in promoting certification, and Recognizing proficiency in our field.

SSCSC.ORG

DISCLAIMER: This overflow simulation may appear differently from those in other systems because of the manhole lid pick hole configuration. Manhole lids with single or multiple pick holes may appear differently during similar overflow conditions. However, the volume of exfiltration and the footprint of the wet area should appear relatively the same under similar slope conditions.

 Emergency Operating Procedure Cuesta Community College District		Document No: SS-EOP-05
Title: SSO MITIGATION AND CLEANUP		Revision: 0
Approved by: Terry Reece <i>Director of Facilities Services,</i> Cuesta Community College District	Prepared by: Bill Callahan <i>Director of Public Works</i> <i>Administration, Wallace Group</i>	Page: 1 of 5 Effective Date: 3/30/2016

1. Health and Safety Warnings

1. All SSO response activities must be conducted in a safe and efficient manner that protects District Staff, the District's contractors, and the public.
2. Employees are required to follow the District'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. Cuesta Community College District's Illness and Injury Prevention Program (IIPP); and
 - d. Cuesta Community College District 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

ID No.:	SS-EOP-05
Rev. No.:	0
Date:	3/30/2016
Page:	2 of 5

2. Cautions

1. Ensure that all equipment is used correctly. If the District 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.

3. Interferences

1. Equipment must be used according to the manufacturer's standards and to the District'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, District Staff must ensure that the SSO response activities are sufficiently documented through written documentation and photographs.

4. Personnel Qualifications and Responsibilities

1. Director of Facilities Services
 - a. Responsible for the management of SSO response, mitigation, and cleanup activities.
 - b. Responsible for directing and training all Facilities Maintenance Staff responsible for SSO Response are trained on this EOP annually.
 - c. Responsible for managing, maintaining, and updating this EOP.
2. Facilities Maintenance Staff
 - a. Responsible for the SSO response, mitigation, notification, cleanup, and reporting activities.
 - b. Responsible for training annually on this EOP.
3. 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.
4. 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.

5. Equipment and Supplies

1. Personal Protective Equipment (PPE):
 - a. Gloves
 - b. Rubber Boots
 - c. Safety Glasses
 - d. Flashlights

ID No.:	SS-EOP-05
Rev. No.:	0
Date:	3/30/2016
Page:	3 of 5

- e. Safety Vest
- 2. SSO Cleanup Equipment:
 - a. Sewer Rodder
 - b. Sewer Bypass Pump
 - c. Trash Pumps
 - d. Hose
 - e. Bleach, Clorox
 - f. Disinfectant
 - g. Shovels
 - h. Rakes
 - i. Sandbags
 - j. Mats
 - k. Plugs
 - l. Plastic Tarps
 - m. Visqueen
- 3. SS-EOP-04: SSO Volume Estimation
- 4. SS-EOP-07: SSO Water Quality Monitoring

6. 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 Facilities Maintenance Staff needs assistance, the first responder will call the Director of Facilities Services at (805) 546-3283
2. Take photographs of the SSO site if possible for use in SSO volume estimations and reporting and to document all of the District's SSO response activities.
3. If the SSO is flowing at a high rate and is of large volume, it may be necessary to use a sewer rodder and/or bypass pump to clear the downstream manhole.
4. Contain the SSO as much as possible using sandbags, tarps, visqueen, etc.
5. Plug upstream and downstream portions of impacted storm drains when applicable and recover any sewage for disposal to the sewer system.
6. Estimate the volume of the SSO as outlined in SS-EOP-04: SSO Volume Estimation and monitor the SSO flow rate.
7. 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.
8. Clear any blockages by using the appropriate cleaning and root cutting tools. Facilities Maintenance Staff or other emergency response contractors should set up a rodder or jetter downstream of the blockage and clean 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.
9. Vacuum or pump up any spilled sewage and discharge it back to the sanitary sewer system.
10. 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.

ID No.:	SS-EOP-05
Rev. No.:	0
Date:	3/30/2016
Page:	4 of 5

11. Rake or sweep up and properly dispose of solids to the extent possible.
12. Estimate the volume of the SSO as outlined in SS-EOP-04: 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-04: SSO Volume Estimation.
13. If the SSO reaches a waterbody and is estimated to be greater than 50,000 gallons, refer to SS-EOP-07: Water Quality Monitoring - Chorro Creek.

Prolonged SSO Response

1. If normal mitigation efforts are unsuccessful and the source of the SSO cannot be cleared by 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 Director of Facilities Maintenance 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.

7. 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 must 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 by any regulatory agency 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;

ID No.:	SS-EOP-05
Rev. No.:	0
Date:	3/30/2016
Page:	5 of 5

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

8. Quality Control and Quality Assurance

- 1. The Director of Facilities Maintenance reviews all District Sewer Spill Reports.
- 2. The Data Submitter will enter and save the SSO Report in CIWQS as a Draft Report.
- 3. A LRO will review the SSO Report, make any needed changes, and certify the final SSO Report in CIWQS.

9. References

- 1. SS-EOP-04: SSO Volume Estimation
- 2. SS-EOP-07: SSO Water Quality Monitoring
- 3. WDR: Order No. 2006-0003-DWQ
- 4. MRP 2013-0058-EXEC

10. Attachments

- 1. SSO Field Response 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

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) ****

SPILL LOCATION

 Observed: Spill from: Manhole ID _____ Other _____

 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)

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 _____

Standard Operating Procedure		Document No:
 Cuesta Community College District		SS-EOP-06
Title:		Revision:
SSO SURFACE WATER CLOSURE		0
Issued by:	Prepared by:	Page:
Terry Reece <i>Director of Facilities Services,</i> Cuesta Community College District	Bill Callahan <i>Director of Public Works</i> <i>Administration, Wallace Group</i>	1 of 5
		Effective Date:
		3/30/2016

1. Health and Safety Warnings

1. All SSO response activities must be conducted in a safe and efficient manner that protects Cuesta Community College District Staff, the District's contractors, and the public.
2. Employees are required to follow the District'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. Cuesta Community College District's Illness and Injury Prevention Program (IIPP); and
 - d. Cuesta Community College District's requirements and standards.
3. Multiple hazards exist in the performance of surface water closure. 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

ID No.:	SS-EOP-06
Rev. No.:	0
Date:	3/30/2016
Page:	2 of 5

2. Cautions

1. Ensure that all equipment is used correctly. If the District has a SOP for using that equipment, it must be followed.
2. Ensure that the surface water closures are sufficiently documented through written documentation and photographs.

3. 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, District Staff must ensure that the SSO response activities, such as surface water closure activities and sign locations, are sufficiently documented through written documentation, calculations, and photographs.

4. Personnel Qualifications and Responsibilities

1. Director of Facilities Services
 - a. Responsible for the oversight and management of the surface water closure.
 - b. Responsible for coordinating surface water closures with San Luis Obispo County Environmental Health Services Staff.
 - c. Required to be trained on this EOP annually.
 - d. Responsible for ensuring that all District Staff responsible for SSO response are trained on this EOP annually
 - e. Responsible for ensuring that all contractors responsible for SSO response train their Staff on this EOP annually.
 - f. Responsible for the overall implementation of this EOP.
2. District Field Worker Staff and Contractors Responsible for SSO Response
 - a. Required to be trained on this EOP annually.
3. San Luis Obispo County Environmental Health Services Staff
 - a. Responsible for coordinating with the District for surface water closures.
 - b. Responsible for ensuring that their Environmental Health Services Staff is trained on surface closure procedures for any surface water closure activities they are involved in.
 - c. Responsible for ensuring that their Environmental Health Services Staff is trained on and employs all of the health and safety requirements and precautions during surface water closure activities.

5. Equipment and Supplies

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

ID No.:	SS-EOP-06
Rev. No.:	0
Date:	3/30/2016
Page:	3 of 5

6. Procedure

Creek Warnings and Closures

1. District Staff is responsible for posting the surface water warning or closure signs when there is a surface water advisory or closure due to a SSO.
2. The surface water advisory or closure pertains to the area where the SSO discharged into the surface water and 100 feet upstream and downstream.
3. The signs are posted at all public access points within this 200 foot area.
4. When District Staff determines that the surface water is no longer under an advisory or closure as outlined in SS-EOP-07: Water Quality Monitoring, District Staff is responsible for removing the signs and barricades.

7. Data and Records Management

1. All required records shall be maintained for a minimum of five (5) years and shall be made available for review by the SWRCB and RWQCB during an onsite inspection or through an information request.
2. Records documenting compliance with all provisions of the WDR and MRP including any required records generated by contractors assisting in SSO response.
3. SSO records, which must be retained for each SSO event, include, but are not limited to:
 - a. Complaint records documenting how the District responded to all notifications of possible or actual SSOs, both during and after business hours, including complaints that do not result in SSOs. Each complaint record shall, at a minimum, include the following information:
 - i. Date, time, and method of notification.
 - ii. Date and time the complainant or informant first noticed the SSO.
 - iii. Narrative description of the complaint, including any information the caller can provide regarding whether or not the complainant or informant reporting the potential SSO knows if the SSO has reached surface waters, drainage channels, or storm drains.
 - iv. Follow-up return contact information for complainant or informant for each complaint received, if not reported anonymously.
 - v. Final resolution of the complaint.
 - b. Records documenting steps and/or remedial actions undertaken by the District, using available information, to comply with WDR Section D.7, which states:

“When a sanitary sewer overflow occurs, the Enrollee shall take all feasible steps and necessary remedial actions to 1) control or limit the volume of untreated or partially treated wastewater discharged, 2) terminate the discharge, and 3) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.

ID No.:	SS-EOP-06
Rev. No.:	0
Date:	3/30/2016
Page:	4 of 5

The Enrollee shall implement all remedial actions to the extent they may be applicable to the discharge and not inconsistent with an emergency response plan, including the following:


- (i) Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure;
 - (ii) Vacuum truck recovery of sanitary sewer overflows and wash down water;
 - (iii) Cleanup of debris at the overflow site;
 - (iv) System modifications to prevent another SSO at the same location;
 - (v) Adequate sampling to determine the nature and impact of the release; and
 - (vi) Adequate public notification to protect the public from exposure to the SSO.”
- c. Records documenting how all estimate(s) of volume(s) discharged and, if applicable, volume(s) recovered were calculated.
 - d. Records of Certified SSO Reports as submitted to CIWQS.
4. Electronic monitoring records relied upon for documenting SSO events and/or estimating the SSO volume discharged, including, but not limited to records from:
- a. Supervisory Control and Data Acquisition (SCADA) systems.
 - b. Alarm systems.
 - c. Flow monitoring device(s) or other instrument(s) used to estimate wastewater levels, flow rates, and/or volumes.
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

8. Quality Control and Quality Assurance

- 1. Director of Facilities Services
 - a. Responsible for the oversight, management, review, and finalization of the surface water closures.

9. References

- 1. SS-EOP-02: SSO Notification and 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 2013-0058-EXEC
- 5. 2011 Water Quality Control Plan for the Central Coastal Basin

Emergency Operating Procedure		Document No:
 Cuesta Community College District		SS-EOP-07
Title:		Revision:
SSO WATER QUALITY MONITORING PROGRAM		0
Approved by:	Prepared by:	Page:
Terry Reece <i>Director of Facilities Services,</i> Cuesta Community College District	Bill Callahan <i>Director of Public Works</i> <i>Administration, Wallace Group</i>	1 of 9
		Effective Date:
		3/30/2016

1. Health and Safety Warnings

1. Review the National Weather Service website at www.wrh.noaa.gov and click on the map near San Luis Obispo, CA until you reach the forecast for San Luis Obispo, CA.
2. Always take two people when conducting sampling in Chorro Creek.
3. Do not enter banks of creek to take samples if it is too hazardous to do so.
4. Sample when it is safe to do so, if that means waiting, document in writing by an email to the Director of Facilities Services that it was unsafe to sample. Sample when it is safe to do so.
5. Appropriate Personal Protective Equipment must be worn and include:
 - a. a life jacket,
 - b. gloves,
 - c. hip waders and/or rubber boots.
6. Disinfect waders and/or boots with a weak bleach solution back at the District Maintenance Yard if you suspect contact with wastewater has occurred.

2. Cautions

1. Do not enter Chorro Creek to sample under hazardous creek conditions.
2. Do not sample during or immediately after a rain event. The results will be inconclusive.
 - a. Contact SLO Co. EHS Water Program Supervisor Rich Lichtenfels at (805) 781-5553; or ask for other SLO Co. EHS Water Program staff at (805) 781-5544 for additional direction
 - b. Sampling can occur after the rain event once San Luis Obispo County Environmental Health Services Staff has determined that the rain event will no longer cause inconclusive sample results.

ID No.:	SS-EOP-07
Rev. No.:	0
Date:	3/30/2016
Page:	2 of 6

3. Interferences

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

4. Personnel Qualifications and Responsibilities

1. Director of Facilities Services
 - a. Responsible for the oversight and management of the water quality monitoring.
 - b. Required to be trained on this EOP annually.
2. District Maintenance Staff
 - a. Responsible for taking the water quality samples.
 - b. Required to be trained on this EOP annually.
3. Laboratory Requirements
 - a. Water quality samples must be analyzed by a State Certified Laboratory.

5. Equipment and Supplies

1. The District will maintain a water quality sampling kit at the Facilities Services office that includes:
 - a. Sterile Sample Bottles
 - b. Partially Completed Laboratory Chain of Custody Forms
 - c. Styrofoam container, ice chest, or equivalent
 - d. Blue ice packs, frozen
 - e. Waterproof marker and ballpoint pen
 - f. Labels for sample bottles
 - g. Towel for drying bottles
 - h. Sample Pole for collecting samples
 - i. Gloves
 - j. Waders and/or rubber boots
 - k. Life Jacket

6. Procedure

Water quality sampling and testing is required for a Category 1 SSO of 50,000 gallons or greater. The procedures for sampling in the ocean, in a lake, or in a creek are provided below. Procedures for Chorro Creek warnings and closures are also provided below.

Water quality sampling and testing may be required within 48 hours of the District becoming aware of a 50,000 gallon or less SSO that reaches Chorro Creek to determine the extent and impact of the sewage spill.

- a. The Director of Facilities Services must telephone, fax, and/or email the following regulators to request and receive direction regarding SSO water quality sampling:
 - i. SLO County Environmental Health: Office – (805) 781-5544

ID No.:	SS-EOP-07
Rev. No.:	0
Date:	3/30/2016
Page:	3 of 6

- ii. Central Coast RWQCB: Office - (805) 547-3147; Fax – (805) 543-0397
- iii. California Department of Fish and Wildlife: Office – (831) 649-2817

SSOs that reach Fresh Water Bodies

1. As soon as reasonably possible, but no later than 48 hours of becoming aware of the SSO, take one grab sample at the point of entry of the SSO into the creek, one grab sample 100 feet down current of the SSO and 100 feet up current of the SSO.
2. Samples are required to be analyzed for, at a minimum, the following pollutants:
 - a. Ammonia
 - b. pH
 - c. Dissolved Oxygen
 - d. Fecal Coliform
3. Depending on the circumstances of the SSO, the Director of Facilities Services will work with San Luis Obispo County Environmental Health Services, State Fish and Wildlife and/or the Central Coast Water Board to determine if additional sampling sites are warranted.
4. Plan to take five (5) sterile sample bottles per SSO location site.
5. Plan to sample for a minimum of three (3) consecutive days so that the nature and impact of the discharge can be characterized and a decision to keep the parks next to the lakes or creek closed and/or re-open the park can be made by San Luis Obispo County Environmental Health Services.
6. Sterile sample bottles are located at the Facilities Services Office or:
 - a. Abalone Coast Analytical at 141 Suburban Ave, Suite C-1, San Luis Obispo, CA. (805) 595-1080
 - i. ELAP Certified #2661
 - b. Fruit Growers Laboratory at 853 Corporation Street, San Luis Obispo, CA (805) 392-2000
 - i. ELAP Certified #2775
7. Sample Collection:
 - a. Fecal Bacteria: Three (3) 100 mL plastic sample bottle(s)
 - i. Holding time is six (6) hours,
 - b. Ammonia: One (1) 500 mL plastic sample bottle preserved with sulfuric acid (H₂SO₄).
 - i. Holding time is twenty-eight (28) days.
 - c. pH: Coordinate with the State Certified Lab to have them collect sample and analyze immediately in the field.
 - i. Holding time is 15 minutes
 - d. Keep the sample collection bottles closed until filled to prevent contamination.
 - e. Wear gloves, life jacket, and hip waders.
 - f. Collect samples just below the surface in knee depth water, approximately 3 feet deep, without rinsing.

ID No.:	SS-EOP-07
Rev. No.:	0
Date:	3/30/2016
Page:	4 of 6

- g. Hold sampling container at its base and plunge it opening downward toward the current. Do not lose preservative. Turn bottle until neck turns slightly upward and mouth is directed toward the current. Fill bottle leaving about one inch (1") of air. Collect a minimum of 100 mls (one cup).
 - h. Immediately place cap on bottle to avoid leaks and contamination.
 - i. Dry the bottle.
 - j. Label container with distinctive sample site, name, date, and time collected.
 - k. Complete the laboratory chain of custody (COC) form with requested information.
 - l. Note any field observations (weather, birds in water, etc.) that may have occurred during the sampling on the COC.
 - m. Place sample containers in a cooler with frozen blue ice. Ice may be used but care must be taken so water samples are not contaminated or diluted by the ice.
 - n. Bring sample to one of the California state-certified labs below within six (6) hours of collection:
 - i. Abalone Coast Analytical
141 Suburban Ave, Suite C-1, San Luis Obispo, CA.
(805) 595-1080
 - ii. Fruit Growers Laboratory
853 Corporation Street, San Luis Obispo, CA
(805) 392-2000
8. Document sample locations and location of SSO on map provided with this EOP.
 - a. Copy the map and attach in an email to the Director of Facilities Services.
9. Water quality sample results are to be reported by phone and electronic mail to the San Luis Obispo County Environmental Health Services.
 - a. SLO Co. EHS Water Program Supervisor, Rich Lichtenfels, (805)781-5544 and email: lichtenfels@co.slo.ca.us.
 - b. SLO Co. EHS, 2156 Sierra Way, San Luis Obispo, CA (805) 781-5544 (General Phone, goes to Dispatch after hours and weekends).
10. Monitoring instruments and devices.
 - a. If other instruments and devices, such as a Dissolved Oxygen probe, are employed over the course of the SSO event they must be properly calibrated and maintained.
 - b. Proper calibration and maintenance includes keeping written records that these activities were performed.
11. If additional water quality samples are required by another environmental or health regulatory agency or State law, or if voluntary monitoring is conducted by the District or its contractor(s), as a result of any SSO, records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The names of the individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The names of the individual(s) who performed the analyses;
 - e. The analytical technique or method used; and
 - f. The results of such analyses.

ID No.:	SS-EOP-07
Rev. No.:	0
Date:	3/30/2016
Page:	5 of 6

When San Luis Obispo County informs District Staff that the creek is no longer under an advisory or closure, District Staff is responsible for removing the signs and barricades.

7. 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:
 - 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.

8. Quality Control and Quality Assurance

1. Director of Facilities Services
 - a. Responsible for the oversight, management, and review of the SSO Water Quality Monitoring Program.
 - b. Responsible for directing the implementation of the SSO Water Quality Monitoring Program.
2. San Luis Obispo County Environmental Health Services Staff
 - a. Responsible for ensuring that water quality samples are taken accurately by County Staff and are analyzed by a State Certified Laboratory.

ID No.:	SS-EOP-07
Rev. No.:	0
Date:	3/30/2016
Page:	6 of 6

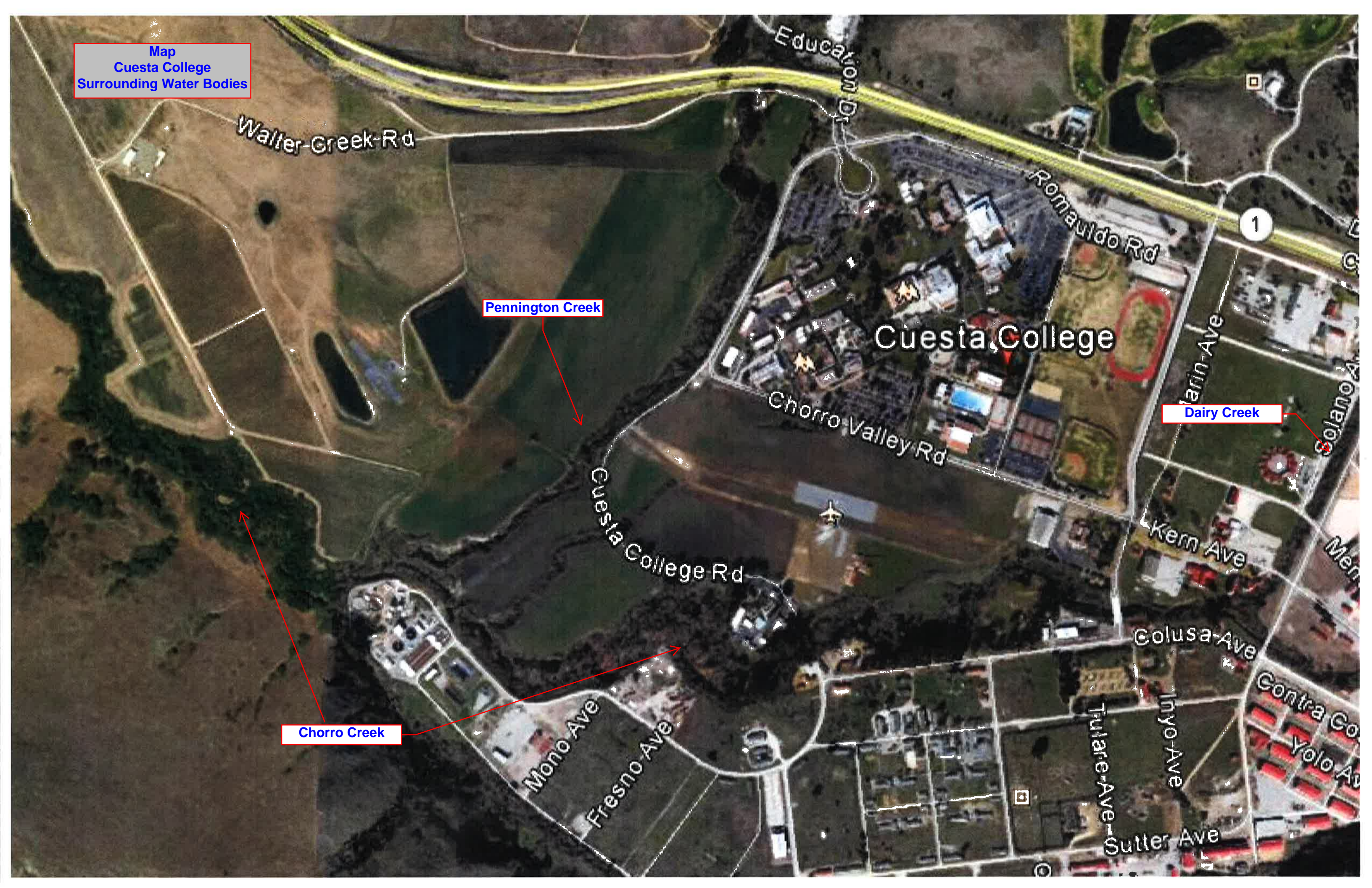
9. References

1. State Water Resources Control Board 2006 GWDR and 2013 MRP
2. 2011 Central Coast Basin Plan
3. 22nd Edition Standard Methods for the Examination of Water and Wastewater

10. Attachments

1. Abalone Coast Chain of Custody Document.
2. Map of Campus and Surrounding Water Bodies

Map
Cuesta College
Surrounding Water Bodies



Pennington Creek

Dairy Creek

Chorro Creek

Cuesta College

Walter-Creek-Rd

Education Dr

Romauldo Rd

Chorro Valley Rd

Cuesta College Rd

Mono Ave

Fresno Ave

Kern Ave

Colusa-Ave

Tulare-Ave


Inyo-Ave

Sutter Ave

Solano Ave

Contra Co
Yolo Av

1

Emergency Operating Procedure		Document No:
 Cuesta Community College District		SS-EOP-08
Title:		Revision:
SSO RESPONSE DOCUMENTATION AND RECORDS		0
Issued by:	Prepared by:	Page:
Terry Reece <i>Director of Facilities Services,</i> Cuesta Community College District	Bill Callahan <i>Director of Public Works</i> <i>Administration,</i> Wallace Group	1 of 5
		Effective Date:
		3/30/2016

1. Health and Safety Warnings

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

2. Cautions

1. The validity of reported results depends on the quality and extent of the documentation taken and maintained by District 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 District.

3. 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.

4. Personnel Qualifications and Responsibilities

1. Legally Responsible Official (LRO)
 - a. Responsible for ensuring that all required records and documents are maintained by the District and available upon request from or inspection by SWRCB, RWQCB, or EPA.
 - b. Required to be trained on this EOP annually.

ID No.:	SS-EOP-08
Rev. No.:	0
Date:	3/30/2016
Page:	2 of 5

2. Director of Facilities Services
 - a. Responsible for managing and maintaining all required records and documents are maintained by the District and available upon request from or inspection by SWRCB, RWQCB, or EPA.
 - b. Required to be trained on this EOP annually.
3. District Staff and Contractors Responsible for SSO Response
 - a. Required to be trained on this EOP annually.

5. Personnel Qualifications and Responsibilities

4. Legally Responsible Official (LRO)
 - a. Responsible for ensuring that all required records and documents are maintained by the District and available upon request from or inspection by SWRCB, RWQCB, or EPA.
 - b. Required to be trained on this EOP annually.
5. Director of Facilities Services
 - a. Responsible for managing and maintaining all required records and documents are maintained by the District and available upon request from or inspection by SWRCB, RWQCB, or EPA.
 - b. Required to be trained on this EOP annually.
6. District Staff and Contractors Responsible for SSO Response
 - a. Required to be trained on this EOP annually.

6. Equipment and Supplies

1. SS-EOP-02: SSO Notification and Reporting
2. SS-EOP-04: SSO Volume Estimation
3. SS-EOP-05: SSO Mitigation and Cleanup
4. SSO Binder

7. Procedure

SSO Response Field Checklist

1. Responsible Party:
 - a. Director of Facilities Services; or
 - b. First Responder.
2. Complete all of the required information and photographs in the SSO Response Field Checklist as described in SS-EOP-05, SSO Mitigation and Cleanup. This information will be utilized to complete the SSO Report in CIWQS as described in SS-EOP-02, SSO Notification and Reporting.
3. Reported Volume Estimate
 - a. The SSO Response Field Checklist attached to SS-EOP-05, SSO Mitigation and Cleanup, requires a SSO volume estimate.
 - b. Utilize SS-EOP-04, SSO Volume Estimation, to complete the appropriate spill estimation method worksheet and calculate this estimate.
 - c. This spill estimation worksheet is the District's documentation of how the SSO volume was evaluated and calculated.

ID No.:	SS-EOP-08
Rev. No.:	0
Date:	3/30/2016
Page:	3 of 5

- 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. Director of Facilities Services
 - c. Any Duly Authorized Representative
2. Keep all SSO records, including reports, photographs, supporting information, documents, or calculations in the District SSO binder.

8. Data and Records Management

The following records shall be maintained in the SSO binder, which is kept in the Facilities Services Office:

1. All required records shall be maintained for a minimum of five (5) years and shall be made available for review by the SWRCB and RWQCB during an onsite inspection or through an information request.
2. Records documenting compliance with all provisions of the WDR and MRP including any required records generated by contractors assisting in SSO response.
3. SSO records, which must be retained for each SSO event, include, but are not limited to:
 - a. Complaint records documenting how the District responded to all notifications of possible or actual SSOs, both during and after business hours, including complaints that do not result in SSOs. Each complaint record shall, at a minimum, include the following information:
 - i. Date, time, and method of notification.
 - ii. Date and time the complainant or informant first noticed the SSO.
 - iii. Narrative description of the complaint, including any information the caller can provide regarding whether or not the complainant or informant reporting the potential SSO knows if the SSO has reached surface waters, drainage channels, or storm drains.
 - iv. Follow-up return contact information for complainant or informant for each complaint received, if not reported anonymously.
 - v. Final resolution of the complaint.
 - b. Records documenting steps and/or remedial actions undertaken by the District, using available information, to comply with WDR Section D.7, which states:

“When a sanitary sewer overflow occurs, the Enrollee shall take all feasible steps and necessary remedial actions to 1) control or limit the volume of untreated or partially treated wastewater discharged, 2) terminate the discharge, and 3) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.

ID No.:	SS-EOP-08
Rev. No.:	0
Date:	3/30/2016
Page:	4 of 5

The Enrollee shall implement all remedial actions to the extent they may be applicable to the discharge and not inconsistent with an emergency response plan, including the following:

- (i) Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure;
 - (ii) Vacuum truck recovery of sanitary sewer overflows and wash down water;
 - (iii) Cleanup of debris at the overflow site;
 - (iv) System modifications to prevent another SSO at the same location;
 - (v) Adequate sampling to determine the nature and impact of the release; and
 - (vi) Adequate public notification to protect the public from exposure to the SSO.”
- c. Records documenting how all estimate(s) of volume(s) discharged and, if applicable, volume(s) recovered were calculated.
 - d. Records of Certified SSO Reports as submitted to CIWQS.
4. Electronic monitoring records relied upon for documenting SSO events and/or estimating the SSO volume discharged, including, but not limited to records from:
- a. Supervisory Control and Data Acquisition (SCADA) systems.
 - b. Alarm systems.
 - c. Flow monitoring device(s) or other instrument(s) used to estimate wastewater levels, flow rates, and/or volumes.
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.

9. 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. Director of Facilities Services
 - a. Responsible for reviewing and approving all SSO related reports and documents before they are reported or submitted.

10. References

- 1. SS-EOP-02: SSO Notification and Reporting
- 2. SS-EOP-04: SSO Volume Estimation
- 3. SS-EOP-05: SSO Mitigation and Cleanup


ID No.:	SS-EOP-08
Rev. No.:	0
Date:	3/30/2016
Page:	5 of 5

4. SS-EOP-07: SSO Water Quality Monitoring
5. Adopted Amended MRP for the WDR: Order No. WQ 2013-0058-EXEC

11. Attachments

1. This section is not applicable to this EOP.

ID No.:	SS-EOP-09
Rev. No.:	0
Date:	3/30/2016
Page:	1 of 4

Emergency Operating Procedure		Document No:
 Cuesta Community College District		SS-EOP-09
Title:		Revision:
SSO TRAINING REQUIREMENTS		0
Issued by:	Prepared by:	Page:
Terry Reece <i>Director of Facilities Services,</i> Cuesta Community College District	Bill Callahan <i>Director of Public Works</i> <i>Administration,</i> Wallace Group	1 of 4
		Effective Date:
		3/30/2016

1. Health and Safety Warnings

1. All field SSO training exercises must be conducted in a safe manner that protects District Staff, the District's contractors, and the public.
2. Employees are required to follow the District's safety practices and procedures. 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. Cuesta Community College District's Illness and Injury Prevention Program (IIPP); and
 - d. Cuesta Community College District 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 2013-0058-EXEC

ID No.:	SS-EOP-09
Rev. No.:	0
Date:	3/30/2016
Page:	2 of 4

2. Cautions

1. Ensure that all equipment is used correctly and as outlined in the District's manuals and procedures.

3. Interferences

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

4. Personnel Qualifications and Responsibilities

1. Facilities Services Director
 - a. Responsible for training all District 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. District Staff and Contractors Responsible for SSO Response
 - a. Required to be trained on this EOP annually.
3. Facilities Services Director
 - a. Responsible for reviewing training records semiannually.
 - b. Responsible for the overall management of the training program.
 - c. Responsible for ensuring that District staff are implementing the training program.

5. 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. Sewer Bypass Pump
 - b. Sewer Rodder
 - c. Bleach
 - d. Shovels
 - e. Rakes
 - f. Sandbags
 - g. Plugs
 - h. Plastic Tarps
 - i. Visqueen
3. District SSO Records Binder

ID No.:	SS-EOP-09
Rev. No.:	0
Date:	3/30/2016
Page:	3 of 4

4. The District's OERP
5. The District's EOPs

6. Procedure

District 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 and Records Requirements
- Traffic and Crowd Control
- SSO Volume Estimation
- SSO Mitigation and Cleanup
- Water Quality Monitoring
- SSO Surface Water Closure
- Response Documentation and Records Requirements

District 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 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, District 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.

7. Data and Records Management

1. All SSO training records must be maintained in a District training binder, which is located in the District Facilities Services 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.

8. Quality Control and Quality Assurance

1. The Facilities Services Director reviews all training records and procedures and is responsible for maintaining, revising, and updating these documents.
2. The Facilities Services Director will review training records semiannually.

9. References


1. The District's OERP
2. The District's EOPs

ID No.:	SS-EOP-09
Rev. No.:	0
Date:	3/30/2016
Page:	4 of 4

3. WDR: Order No. 2006-0003-DWQ
4. Adopted Amended MRP for the WDR: Order No. WQ 2013-0058-EXEC

10. Attachments

1. This section does not apply to this EOP.

Management Procedure		Document No:
 Cuesta Community College District		SS-MP-01
Title:		Revision:
WDR TRACKING AND TRAINING		0
Issued by:	Prepared by:	Page:
Terry Reece <i>Director of Facilities Services,</i> Cuesta Community College District	Bill Callahan <i>Director of Public Works</i> <i>Administration,</i> Wallace Group	1 of 5
		Effective Date:
		3/30/2016

1. Health and Safety Warnings

1. All field training exercises must be conducted in a safe manner that protects District Staff, the District's contractors, and the public.
2. Employees are required to follow the District'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. Cuesta Community College District's Illness and Injury Prevention Program (IIPP); and
 - d. Cuesta Community College District's requirements and standards.
3. Multiple hazards exist in the performance of field training. The following are some of the more common hazards to be aware of:
 - a. Traffic in the vicinity of field training exercises
 - b. Distracted drivers
 - c. Members of the public interested in field 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

2. Cautions

1. The validity of reported results depends on the quality and extent of the documentation taken and maintained by District Staff.
2. Ensure that all training activities are documented.

ID No.:	SS-MP-01
Rev. No.:	0
Date:	3/30/2016
Page:	2 of 5

3. Review SWRCB and RWQCB records requirements annually in order to ensure the required information, documents, and records are being maintained by the District.
4. Ensure that all equipment is used correctly and as outlined in the District's procedures and equipment manuals.

3. Interferences

1. Schedule training when District Staff schedules are relatively free in order to ensure that training exercise can be completed with minimal or no interruptions.
2. Establish and implement procedural training for contractors responsible for assisting the District with implementing aspects of the SSMP.

4. Personnel Qualifications and Responsibilities

1. Director of Facilities Services and LRO
 - a. Responsible for the overall management of the training program
 - b. Responsible for ensuring that the District maintenance staff are implementing the training program.
 - c. Responsible for maintaining and managing all training records and documents.
 - d. Responsible for ensuring that all required records are available upon request or inspection by SWRCB, RWQCB, or EPA.
 - e. Responsible for managing, maintaining, and updating this MP.
 - f. Required to be trained on this MP annually.
2. District Staff and Contractors Responsible for Activities Required by the WDR
 - a. Required to be trained on this MP annually.

5. Equipment and Supplies

1. The District's SSMP, Revision 1
2. The District's EOPs and MPs
3. WDR: Order No. 2006-0003-DWQ
4. Adopted Amended MRP for the WDR: Order No. WQ 2013-0058-EXEC

6. Procedure

1. District Staff and contractors responsible for any activities included in the District's SSMP or required by the WDR or MRP must be trained at a minimum of once per a year.
2. Training must cover the following activities at a minimum:
 - a. WDR: Order No. 2006-0003-DWQ
 - i. Additional training must be held if any amendments are made to the WDR.
 - b. Adopted Amended MRP for the WDR: Order No. WQ 2013-0058-EXEC
 - i. Additional training must be held if any amendments are made to the MRP.
 - c. All eleven (11) SSMP Elements and their supporting documents
 - i. This includes the District's EOPs and MPs.
 - ii. SSMP training provides District Staff with the opportunity to comment on and provide recommendations for revising the District's SSMP.

ID No.:	SS-MP-01
Rev. No.:	0
Date:	3/30/2016
Page:	3 of 5

- iii. Additional training must be held if updates or revisions of the SSMP are completed.
- 3. All training must be documented and tracked in a training log sheet.
- 4. All records, including reports, photographs, supporting information, documents, or calculations associated with the implementation of the District's SSMP or activities complying with the WDR or MRP must be maintained with their associated SSMP Element.

7. Data and Records Management

- 1. All training records must be kept in the District's training binder, which is kept in the Director of Facilities Services office at the Facilities Services office.
- 2. All required records shall be maintained for a minimum of five (5) years and shall be made available for review by the SWRCB and RWQCB during an onsite inspection or through an information request.
- 3. Keep, file, and store records documenting compliance with all provisions of the WDR and MRP including
 - a. Any required records generated by contractors performing work on the sanitary sewer system or assisting in SSO response.
 - b. SSO records, which must be maintained for each SSO event, include, but are not limited to:
 - c. Complaint records documenting how the District responded to all notifications of possible or actual SSOs, both during and after business hours, including complaints that do not result in SSOs. Each complaint record shall, at a minimum, include the following information:
 - i. Date, time, and method of notification.
 - ii. Date and time the complainant or informant first noticed the SSO.
 - iii. Narrative description of the complaint, including any information the caller can provide regarding whether or not the complainant or informant reporting the potential SSO knows if the SSO has reached surface waters, drainage channels, or storm drains.
 - iv. Follow-up return contact information for complainant or informant for each complaint received, if not reported anonymously.
 - v. Final resolution of the complaint.
 - d. Records documenting steps and/or remedial actions undertaken by the District, using available information, to comply with WDR Section D.7, which states:

“When a sanitary sewer overflow occurs, the Enrollee shall take all feasible steps and necessary remedial actions to 1) control or limit the volume of untreated or partially treated wastewater discharged, 2) terminate the discharge, and 3) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.

The Enrollee shall implement all remedial actions to the extent they may be applicable to the discharge and not inconsistent with an emergency response plan, including the following:

ID No.:	SS-MP-01
Rev. No.:	0
Date:	3/30/2016
Page:	4 of 5

- i. Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure;
 - ii. Vacuum truck recovery of sanitary sewer overflows and wash down water;
 - iii. Cleanup of debris at the overflow site;
 - iv. System modifications to prevent another SSO at the same location;
 - v. Adequate sampling to determine the nature and impact of the release; and
 - vi. Adequate public notification to protect the public from exposure to the SSO.”
- e. Records documenting how all estimate(s) of volume(s) discharged and, if applicable, volume(s) recovered were calculated.
 - f. Records of Certified SSO Reports as submitted in CIWQS.
4. Electronic monitoring records relied upon for documenting SSO events and/or estimating the SSO volume discharged, including, but not limited to records from:
 - a. Supervisory Control and Data Acquisition (SCADA) systems.
 - b. Alarm systems.
 - c. Flow monitoring device(s) or other instrument(s) used to estimate wastewater levels, flow rates, and/or volumes.
 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.

8. Quality Control and Quality Assurance

1. The District’s SSMP is evaluated as outlined in SSMP Element 9: Monitoring, Measurement, and Program Evaluations.
2. Procedures are evaluated by District Staff during training sessions and after being implemented.
 - a. They are updated if there are any deficiencies.
 - b. Procedure updates are completed by the Director of Facilities Services or LRO and must be approved by the Director of Facilities Services or LRO.
3. The Director of Facilities Services to review the District’s training binder annually to ensure all required staff are up-to-date on training requirements.


9. References

1. District’s SSMP, Revision 1
2. WDR: Order No. 2006-0003-DWQ
3. Adopted Amended MRP for the WDR: Order No. WQ 2013-0058-EXEC

ID No.:	SS-MP-01
Rev. No.:	0
Date:	3/30/2016
Page:	5 of 5

10. Attachments

1. This section is not applicable to this MP.

Management Procedure		Document No:
 Cuesta Community College District		SS-MP-02
Title:		Revision:
Incident Report Form: Customer Contact		0
Issued by:	Prepared by:	Page:
Terry Reece <i>Director of Facilities Services,</i> Cuesta Community College District	Bill Callahan <i>Director of Public Works</i> <i>Administration,</i> Wallace Group	1 of 6
		Effective Date:
		3/30/2016

1. Health and Safety Warnings

Safety is directly related to your level of training and professionalism. It is imperative that Cuesta staff conduct all day-to-day activities safely through a combination of awareness and professionalism.

Multiple hazards may exist when completing Incident Report. The following are some of the more common hazards to be aware of:

- Traffic in the general vicinity of your activities
- Distracted Drivers
- Noise
- Inclement weather conditions
- Agitated and aggressive members of the public

Employees are required to follow the District's Safety Practices and Procedures. These procedures establish guidelines in compliance with the Illness Injury Prevention Program (IIPP) mandates of the Federal Code of Regulations, the State of California Occupational Safety and Health Organization (CalOSHA), and the Cuesta Community College District.

2. Cautions

Staff should maintain a professional attitude while conducting this activity. Make every effort not to react to or be distracted by negative public comments and inquiries regarding the issues involving documentation activities.

ID No.:	SS-MP-02
Rev. No.:	0
Date:	3/30/2016
Page:	2 of 6

3. Personnel Qualifications and Responsibilities

Cuesta staff should only complete Incident Reports after being trained in this procedure. This is a minimum standard for conducting these activities. Annual training on Customer Contact Reporting is required.

4. Equipment and Supplies

Cuesta Community College District Customer Contact Report

5. Procedure

The Customer Contact Report shown in Figure 2.1 and 2.2 is used to document contact with the public for sewer related issues and to assist in the collection of data when a member of the public makes contact with Cuesta staff regarding a Sanitary Sewer Overflow (SSO). Additional fields are also available on this form to document public contact for other District related issues.

All SSO Forms, Incident Reports, and related O&M records are required to be maintained and available for review for a period of five years from the date of each SSO. An Incident Report must be filled out when receiving a call or responding to any sewer related concern or incident in which you are interacting with members of the public. The Incident Report is a two page document. Page one is for general information to document the issue being investigated or reported. Page two is used to record initial information required to document calls from the public regarding Sanitary Sewer Overflows (SSOs).

When filling out this report, make sure to enter all requested data applicable to the issue being investigated or addressed:

- Date
- Time
- Name of Contact
- Address
- Phone Number
- Reason for Call
- Staff Issuing Report

A summary of communications and comments should be filled in as appropriate to reflect how the issue was discussed and handled. If additional space is required, attach a separate additional page to this report to continue any required details. Attach additional info to this report as necessary. Check the appropriate box identifying who this information should be routed to.

When report is complete, a copy is forwarded to the Director of Facilities Services with original filed at the Facilities Services office.

ID No.:	SS-MP-02
Rev. No.:	0
Date:	3/30/2016
Page:	3 of 6



**Cuesta Community College District
Incident Report**

Route To:	Director of Facilities Services	Safety Compliance Coordinator	Maintenance Staff
Date:	_____		
Time:	_____		
Name of Contact:	_____		
Address:	_____		
Phone Number:	_____		
<input type="checkbox"/> Sewer Inspection	<input type="checkbox"/> Sewer Spill (See back of Contact Report)		
<input type="checkbox"/> Sewer Repair	<input type="checkbox"/> Emergency H2O Turn Off	<input type="checkbox"/> Odor Complaint	<input type="checkbox"/> Other
Reason for Call:	_____		

Office Comments:	_____		

Director of Facilities Services Comments:	_____		

Staff Generating Report:	_____		
Problem Corrected?	Inspected By:	Date:	
Follow Up Activities:	_____		
Correspondence sent out?	Dated: _____		

Figure 2-1: Incident Report (Page 1)

If the call is related to a Sanitary Sewer Overflow (SSO) during normal office hours and staff is responding to investigate, a Sewer Spill Contact Information form should be filled out. See Page 2 of Customer Contact Report in Figure 2-2. It is important that reasonable efforts are made to gather all of the information requested on the Sewer Spill Contact Information page as this initial contact information is required for compliant sewer spill reporting. When this report is complete, a copy is forwarded to the Director of Facilities Services with original filed at the Facilities Services office.

ID No.:	SS-MP-02
Rev. No.:	0
Date:	3/30/2016
Page:	4 of 6



Cuesta College
SSO Incident Report Form

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

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) ****

Figure 2-2: Incident Report (Page 2)

6. Data and Records Management

1. All required records shall be maintained for a minimum of five (5) years and shall be made available for review by the SWRCB and RWQCB during an onsite inspection or through an information request.
2. Records documenting compliance with all provisions of the WDR and MRP including any required records generated by contractors performing work on the sanitary sewer system or assisting in SSO response.
3. SSO records, which must be maintained for each SSO event, include, but are not limited to:
 - a. Complaint records documenting how the District responded to all notifications of possible or actual SSOs, both during and after business hours, including complaints that do not result in SSOs. Each complaint record shall, at a minimum, include the following information:
 - i. Date, time, and method of notification.
 - ii. Date and time the complainant or informant first noticed the SSO.

ID No.:	SS-MP-02
Rev. No.:	0
Date:	3/30/2016
Page:	5 of 6

- iii. Narrative description of the complaint, including any information the caller can provide regarding whether or not the complainant or informant reporting the potential SSO knows if the SSO has reached surface waters, drainage channels, or storm drains.
- iv. Follow-up return contact information for member of the public for each complaint received, if not reported anonymously.
- v. Final resolution of the complaint.
- b. Records documenting steps and/or remedial actions undertaken by the District, using available information, to comply with WDR Section D.7, which states:

“When a sanitary sewer overflow occurs, the Enrollee shall take all feasible steps and necessary remedial actions to 1) control or limit the volume of untreated or partially treated wastewater discharged, 2) terminate the discharge, and 3) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.

The Enrollee shall implement all remedial actions to the extent they may be applicable to the discharge and not inconsistent with an emergency response plan, including the following:

- i. Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure;
 - ii. Vacuum truck recovery of sanitary sewer overflows and wash down water;
 - iii. Cleanup of debris at the overflow site;
 - iv. System modifications to prevent another SSO at the same location;
 - v. Adequate sampling to determine the nature and impact of the release; and
 - vi. Adequate public notification to protect the public from exposure to the SSO.”
- c. Records documenting how all estimate(s) of volume(s) discharged and, if applicable, volume(s) recovered were calculated.
 - d. Records of Certified SSO Reports as submitted in CIWQS.
 - 4. Electronic monitoring records relied upon for documenting SSO events and/or estimating the SSO volume discharged, including, but not limited to records from:
 - a. Supervisory Control and Data Acquisition (SCADA) systems.
 - b. Alarm systems.
 - c. Flow monitoring device(s) or other instrument(s) used to estimate wastewater levels, flow rates, and/or volumes.

7. **Quality Control and Quality Assurance**

The Director of Facilities Services reviews all Customer Contact Reports. If deficiencies are found in reporting and documentation activities, the Director of Facilities Services

ID No.:	SS-MP-02
Rev. No.:	0
Date:	3/30/2016
Page:	6 of 6

will provide additional training on this procedure. If revisions are necessary, the Director of Facilities Services will draft revisions to this procedure and train staff accordingly.

8. References

Statewide General Waste Discharges Requirements for Sanitary Sewer Systems; and State Water Resources Control Board Order No. WQ 2013-0058-EXEC, Amended Monitoring and Reporting Requirements for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems

9. Attachments

Cuesta Community College District Incident Report Form



Cuesta Community College District
Incident Report

Route To: Director of Facilities Services Safety Compliance Coordinator Maintenance Staff

Date: Time:

Name of Contact:

Address:

Phone Number:

- Sewer Inspection Sewer Spill (See back of Contact Report)
Sewer Repair Emergency H2O Turn Off Odor Complaint Other

Reason for Call:

Multiple horizontal lines for text entry.

Office Comments:

Multiple horizontal lines for text entry.

Director of Facilities Services Comments:

Multiple horizontal lines for text entry.

Staff Generating Report: Problem Corrected? Inspected By: Date: Follow Up Activities: Correspondence sent out? Dated:

Appendix E – FOG Control Program

1) Outreach Materials



Cuesta Community College District: Fats Oils and Grease Control

Fats, Oils and Grease Control – We Need Your Help!

Cooking **fats, oils** and **grease (FOG)** washed down the kitchen sink can lead to sewage back-ups at home, your business, or in the Cuesta Colleges sewer pipes. Liquefied grease and fat will solidify and clog pipes much like a clog in a human artery. Sewage overflows can pose health and environmental hazards, polluting our local creeks and the bay. The truth is no one wants untreated sewage backing up into their home, into buildings, on the street, or spilled into local creeks and bays!



Common sources of **FOG** are:

- Meat Fats Such as Bacon
- Lard
- Shortening, Butter, Margarine, and Dairy Products
- Fatty/greasy food scraps
- Cream-based Sauces
- Cooking/Fry Oil
- Salad Dressing

To reduce **FOG** from your business:

- Wipe off plates with a sponge into the trash before washing.
- Wipe down greasy pots and pans with a paper towel or newspaper and place in the trash before washing.
- Pour small amounts of liquid cooking and/or fry oil in a container and place in the trash.

What are restaurants doing?

- Restaurants are managed by the **Cuesta Community College District FOG Control Program**. Hydro mechanical grease control devices, such as a grease trap or interceptor, are installed as part of a restaurants kitchen wastewater plumbing system to reduce the amount of **FOG** they discharge to the District sewer system.



Cuesta College Fats, Oils, and Grease Control Program

Grease Interceptor & Grease Trap Cleaning Record

*** Contracted pumping and maintenance for Grease Interceptors and Grease Traps must be documented on this form each time a grease control device is pumped or when maintenance is performed.*

Date of Service:	FOG Removal Contractor:
Location:	Type of Grease Control Device (Circle): Trap Interceptor
Trap/Interceptor Capacity: Gallons	Pumping Schedule:

Grease Interceptor			Grease Trap		
<i>**Please inspect grease control device and check appropriate response provided.</i>					
	Yes	No		Yes	No
Inlet T is functioning as designed			Baffles functioning as designed		
Crossover T is functioning as designed			Flow Restrictor is functioning as designed		
Effluent T is functioning as designed			Grease in inspection port		
Baffle is functioning as designed			Lid and other components functioning		
Manhole frame and ring in good condition			Foreign material in trap		
Grease and Solids in Sample Box					
Foreign material in interceptor					

<i>**Provide information for second (clarifier) stage of interceptor below.</i>	<i>**Provide information for second (clarifier) stage of grease trap below.</i>
Total Liquid Depth in Interceptor (inches):	Total Liquid Depth in Trap (inches):
Depth of Grease (inches):	Depth of Grease (inches):
Depth of Solids (inches):	Depth of Solids (inches):

Comments:

Contractor Name: _____ Signature: _____

Date: _____

Facility Representative Name: _____ Signature: _____

Date: _____

Appendix F – System Evaluation and Capacity Assurance Plan

1) Inspection Results and Analysis (Placeholder)

Appendix G – Monitoring, Measurement and Program Modifications

- 1) Staff Reports
- 2) SSO Indicator Tracking Table

Cuesta Community College District
Sewer System Management Plan
Annual Status Report 2017

This report is presented as an informational item and part of an effort to inform the Board of Trustees and interested members of the public on annual activities completed by Cuesta staff to manage and implement the Cuesta Sewer System Management Plan (SSMP).

Background

The State Water Resources Control Board (SWRCB) established in 2006 Statewide General Wastewater Discharge Requirements (WDR) for Sanitary Sewer Systems. WDR Order No. 2006-0003-DWQ and revised Monitoring and Reporting Program WQ 2013-0058-Exec, require all public entities that own or operate sanitary sewer systems greater than one mile in length used to collect and convey wastewater to a publicly owned treatment facility, develop, implement, and maintain a SSMP.

WDR Order No. 2006-0003-DWQ, Section D.13 outlines Eleven (11) mandatory Elements that must be developed and implemented for a complete SSMP and compliance with this Order. The elements are as follows:

- 1) Goals
- 2) Organization
- 3) Legal Authority
- 4) Operations and Maintenance Program
- 5) Design and Performance Provisions
- 6) Overflow Emergency Response Plan
- 7) Fats, Oils, and Grease Control Program
- 8) System Evaluation and Capacity Assurance Plan
- 9) Monitoring, Measurement and Program Modifications
- 10) SSMP Program Audits
- 11) Communication Program

The general goal behind the WDRs and requirement for SSMP development and implementation is to reduce Sanitary Sewer Overflows (SSOs) within each enrollees sewer system. The Cuesta College sewer system has historically had a low incidence of SSOs compared to other systems which are similar in size and type.

Historical Performance

Cuesta adopted an initial SSMP in June 2012 and completed an initial program Audit in 2015. An initial SSMP revision was completed based on the findings of the 2015 Audit in March 2016. The most recent Audit was completed in April 2017 with the findings of the report showing Cuesta was in compliance with many of the requirements outlined in the WDRs. The report indicated there was some room for improvement in a few areas. Cuesta staff has been working to address these areas since the completion of the last Audit with many of the noted deficiencies corrected and addressed in this report.

SSMP Related Activities 2017

The following Table summarizes SSMP related activities in 2017

SSMP Element	Summary of Activities
Element 1: Goals	<p>Cuesta has been working diligently to meet the goals outlined in the SSMP which are to:</p> <ol style="list-style-type: none"> 1) Maintain or improve the condition of the system 2) Provide adequate system capacity 3) Minimize the number and impact of SSOs <p>Cuesta has demonstrated compliance with these goals through; recent sewer line cleaning and CCTV investigations of the system and monitoring the system for potential capacity constraints. Cuesta has not experienced a SSO or conditions that would lead to a SSO since 2010.</p>
Element 2: Organization	N/A - no work required in this element.
Element 3: Legal Authority	N/A - no work required in this element.
Element 4: Operations and Maintenance	<p>The following activities have been conducted in 2017:</p> <ol style="list-style-type: none"> 1) Sewer Line Cleaning of entire trunk line system 2) Closed Circuit Televising (CCCTV and Assessment of entire trunk line system 3) Initial identification of one near term sewer line repair project planned to correct defective sewer line 4) Additional analysis and prioritization of sewer improvements planned in 2018
Element 5: Design and Performance Provisions	N/A - no work required in this element.
Element 6: Overflow Emergency Response Plan	<p>Training on the Cuesta Overflow Emergency Response Plan has been ongoing since August in the following areas:</p> <ol style="list-style-type: none"> 1) SSO Volume Estimation 2) SSO Monitoring & Reporting Requirements 3) SSO Mitigation and Cleanup 4) SSO H2O Quality Sampling and Surface Water Closure
Element 7: FOG Control Program	Cuesta developed a grease interceptor pumping log to better track operation, pumping and maintenance of the Cuesta Cafeteria grease interceptor to help prohibit Fats, Oils and Grease entering the sewer system which could potentially cause a SSO.
Element 8: System Evaluation and Capacity Assurance Plan	Based on findings of recent inspection, system appears to have adequate capacity for existing dry weather, wet weather and build out flows. A formal analysis to confirm these findings is planned for 2020.
Element 9: Monitoring Measurement and	<p>The following activities were performed:</p> <ol style="list-style-type: none"> 1) Analysis of Sewer line cleaning and CCTV inspection shows current Operation and Maintenance Program has been adequate to prevent SSOs.

Program Modifications	<ul style="list-style-type: none"> 2) Analysis of historic SSO records show one SSO in the past eight (8) years, with zero (0) SSOs in the past seven (7) years. 3) SSMP Audit was completed in the last year. Staff moved forward with a plan to address deficiencies outlined in Audit report.
Element 10: SSMP Audit	SSMP Audit was completed in April 2017.
Element 11: Communication Program	<p>The following activities have been conducted in 2017:</p> <ul style="list-style-type: none"> 1) Updated SSMP posted on Cuesta Web Site 2) Educational flyers were developed to inform student and faculty population on items not safe for disposal in the sewer system. 3) Annual SSMP Status Report was developed and presented to Cuesta Board of Trustees and interested members of the public during a monthly Board meeting.

Cuesta staff plans to continue to manage and implement the Sewer System Management Plan and report to the Board annually with a similar status report as part of the SSMP Communication Program.

Statistical data is provided on the following pages demonstrating Cuesta Colleges Sewer System Performance History.

Number of SSOs per Indicator per Year- Cuesta Community College District

Indicator		2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
No. of SSOs		1	0	0	0	0	0	0	0		1
Locations with Multiple SSOs		0	0	0	0	0	0	0	0		0
Volume (gal)	Volume	1000	0	0	0	0	0	0	0		1000
	Volume Recovered	0	0	0	0	0	0	0	0		0
	Volume Reached Surface Water	1000	0	0	0	0	0	0	0		1000
Causes	Debris	0	0	0	0	0	0	0	0		0
	Debris – General	0	0	0	0	0	0	0	0		0
	Debris – Rags	0	0	0	0	0	0	0	0		0
	Flow Exceeded Capacity	0	0	0	0	0	0	0	0		0
	FOG	0	0	0	0	0	0	0	0		0
	Operator Error	0	0	0	0	0	0	0	0		0
	Other	0	0	0	0	0	0	0	0		0
	Pipe Structural Problem/Failure	0	0	0	0	0	0	0	0		0
	Pump Station Failure	0	0	0	0	0	0	0	0		0
	Rainfall Exceeded Design	0	0	0	0	0	0	0	0		0
	Root Intrusion	0	0	0	0	0	0	0	0		0
Vandalism	0	0	0	0	0	0	0	0		0	

The SSO information above was gathered from California Integrated Water Quality System Project (CIWQS) SSO Public Report generated on May 9, 2018.

SSO Measurements 2016

The following Table shows overall average SSO Occurrences by Region and State compared to Cuesta College in the Calendar Year 2016.

	Number of SSOs	Volume of SSOs	Average SSOs per 100 miles	Average Volume of Spills per 100 miles (gallons)	SSO Events per Facility with Spills
Cuesta College Averages	0	0	0	0	0
RWQCB Region 3 Averages	158	328,727	3.6	7,464	3.9
SWRCB Statewide Averages	3,981	24,967,366	4.01	25,134	8.85

* Database only provides Statewide SSO Measurement Data through 2016. There were Zero SSOs in 2017 which should reflect similar data when published.

SSO Measurements 2010 through 2017

Table shows comparison of Cuesta Spill history compared to other State Schools.

Spill Rate: Number of Spills per 100 miles of sewer pipe per Year									
	Category 1 Spills			Category 2 Spills			Category 3 Spills		
	Mainlines	Laterals	Other	Mainlines	Laterals	Other	Mainlines	Laterals	Other
Cuesta College	8.32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
State School Averages	6.48	27.34	1.63	3.6	33.23	1.24	9.72	60.16	5.49
Net Volume of Spills: Net Volume in Gallons per Capita per Year									
	Category 1 Spills			Category 2 Spills			Category 3 Spills		
	Mainlines	Laterals	Other	Mainlines	Laterals	Other	Mainlines	Laterals	Other
Cuesta College	19.21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
State School Averages	8.91	4.12	0.33	41.85	38.5	0.64	3.11	1.36	0.84

Category 1: Spill contacting surface water. **Category 2:** 1000 gallons or more w/ no surface water contact. **Category 3:** All other Spills.

*It is important to consider Cuesta has only experienced one Sanitary Sewer Overflow (Spill) in the past eight (8) years due to a failed pipe bridge in 2010 causing approximately 1000 gallons of sewage to spill. This condition was immediately corrected and there have been no spills since 2010.

Performance Summary

In summary, the Cuesta College Sewer Collection and Conveyance System has maintained an excellent performance record when compared to State Municipalities, Regional Municipalities and State School facilities over the course of the past eight (8) years due to proactive operation and maintenance of the sewer system.

Appendix H – SSMP Audit

- 1) Data and Records Request
- 2) SSMP Audit Report

SSMP DATA & RECORDS REQUEST

A. SSMP ADMINISTRATIVE		YES	LOCATED WHERE?	NO	N/A	COMMENTS
A1	a. Has your agency enrolled in the State-wide GWDR and designated the responsible or authorized representative (LRO)?					
	b. Provide a copy of the SSMP Certification in CIWQS.					
	c. Provide a copy of the CIWQS print-out for all LROs and Data Submitters.					
	d. Provide a copy of your Operational Report from CIWQS.					
A2	a. Has your agency adopted a SSMP?					
	b. Provide a copy of the SSMP.					
	c. Provide a copy of the Meeting Minutes for the agency governing body's meeting during which the SSMP was adopted.					
A3	a. Does your agency have a copy of the GWDRs available to agency staff? Where is it kept?					
B. GOALS		YES	LOCATED WHERE?	NO	N/A	COMMENTS
B1	a. Has your agency developed SSMP and SSO reduction goals?					
	b. Provide documentation that your agency has made progress toward meeting these goals.					

SSMP DATA & RECORDS REQUEST

C. ORGANIZATION		YES	LOCATED WHERE?	NO	N/A	COMMENTS
C1	a. Does your SSMP clearly identify the names and job titles the LROs?					
C2	a. Does your SSMP have an organizational chart or table showing individual roles and responsibilities for implementation of the SSMP?					
	b. Are names, titles, and telephone numbers provided in this chart or table?					
C3	a. Is the chain of communication for reporting SSOs included in the SSMP?					
	b. Are names, titles, and telephone numbers provided in this chain of communication?					

SSMP DATA & RECORDS REQUEST

D. LEGAL AUTHORITY		YES	LOCATED WHERE?	NO	N/A	COMMENTS
D1 a.	Provide the sanitary sewer system use ordinances, service agreements, or other legally binding procedures or documents, which demonstrates the agency's legal authority:					
b.	Prohibit illicit discharges					
c.	Require that sewers and connections be properly designed and constructed					
d.	Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency					
e.	Limit the discharge of fats, oils, and grease and other debris that may cause blockages					
f.	Enforce any violation of its sewer ordinances					
E. OPERATIONS AND MAINTENANCE (O&M)		YES	LOCATED WHERE?	NO	N/A	COMMENTS
E1 a.	Provide the following documents:					
b.	An updated map of the agency's sanitary sewer system and storm drain system.					
c.	A schedule for maintenance and cleaning of the sanitary sewer system.					
d.	Documentation for maintenance and cleaning of the sanitary sewer system.					

SSMP DATA & RECORDS REQUEST

e.	Documentation for scheduled and conducted activities, such as work orders and/or reports and invoices from contractors.					
f.	The O&M contract if the agency's collection system is operated and maintained by a contract operations firm.					
g.	The agency's Rehabilitation and Replacement Plan					
h.	» Summary of the agency's CCTV program and schedule. Include samples of inspections and summary of findings.					
i.	» List of current and planned projects					
j.	» Time schedule for planned projects					
k.	» Schedule for developing the funds needed for rehabilitation and replacement projects					
l.	Standard Operating Procedures for Sewer System Operations and Maintenance activities.					
m.	Training records for staff operations and maintenance activities and contractor operations and maintenance activities.					
n.	» All applicable licenses and certifications required for agency or contract staff. Provide documents stating this requirement.					
o.	Assesment of O&M Staff "Core Competencies" (Skills, Knowledge and Abilities)					

SSMP DATA & RECORDS REQUEST

E. OPERATIONS AND MAINTENANCE (O&M) [CONTINUED]		YES	LOCATED WHERE?	NO	N/A	COMMENTS
p.	Equipment and replacement part inventories, including identification of critical replacement parts.					
q.	» If critical replacement parts are not kept in stock, identify and provide method in which these parts are acquired when needed (List of emergency contractors and/or suppliers).					
r.	» If critical replacement parts are not kept in stock, provide applicable mutual aid agreements.					
F. DESIGN & PERFORMANCE STANDARDS		YES	LOCATED WHERE?	NO	N/A	COMMENTS
F1 a.	Provide the following documents:					
b.	Design and construction standards and specifications for:					
c.	» the installation of new sanitary sewer systems					
d.	» pump stations and other appurtenances specific to the agency's collection and conveyance system					
e.	» the rehabilitation and repair of existing sanitary sewer systems					

SSMP DATA & RECORDS REQUEST

f.	Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances specific to the agency's collection and conveyance system and for rehabilitation and repair projects.					
G. OVERFLOW EMERGENCY RESPONSE PLAN		YES	LOCATED WHERE?	NO	N/A	COMMENTS
G1 a.	Provide the agency's Overflow Emergency Response Plan					
b.	Notification procedures ensuring that the primary responders and regulatory agencies are informed of all SSOs in accordance with the Monitoring and Reporting Program, Order No. 2013-0058-EXEC.					
c.	A program to ensure an appropriate response to all overflows.					
d.	Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained.					
e.	Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities.					
f.	Procedures to address spill volume estimation.					
g.	A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States.					
h.	A program to ensure that all reasonable steps are taken 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.					

SSMP DATA & RECORDS REQUEST

H. FOG CONTROL PROGRAM		YES	LOCATED WHERE?	NO	N/A	COMMENTS
H1 a.	Provide the agency's Fats, Oils, and Grease (FOG) Control Program.					
b.	If applicable: justification for why the agency does not have a FOG Control Program, because one is not needed.					
c.	Evidence of the agency's public education outreach outreach program that promotes proper disposal of FOG.					
d.	List of acceptable FOG disposl facilities.					
e.	Ordinance demonstrating the agency's legal authority to prohibit FOG discharges to the system and inspect FOG producing facilities.					
f.	Evidence of FOG Control Program inspection and enforcement activities.					
g.	Documentation of hot spots in the collection system, which are caused by FOG.					
I. SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN		YES	LOCATED WHERE?	NO	N/A	COMMENTS
I1 a.	Provide the agency's System Evaluation and Capacity Assurance Plan (SECAP).					
b.	Evaluation determining whether the SECAP is necessary.					

SSMP DATA & RECORDS REQUEST

c.	The agency's capital improvement plan (CIP) that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event.					
d.	Program for the evaluation of system hydraulic deficiencies.					
e.	Evidence of design criteria utilized to address hydraulic deficiencies.					
f.	Short- and long-term CIP schedule necessary to address hydraulic deficiencies. Sources of funding for these long and short term projects.					

SSMP DATA & RECORDS REQUEST

J. MONITORING, MEASUREMENT & PROGRAM MODIFICATIONS		YES	LOCATED WHERE?	NO	N/A	COMMENTS
J1	a. Provide the following documentation, which demonstrates the following:					
	b. Prioritization of appropriate SSMP activities.					
	c. Efforts to monitor implementation and measure the effectiveness of the SSMP.					
	d. Assessment of the preventative maintenance program.					
	e. Updates to program elements.					
	f. Identification of SSO trends.					

SSMP DATA & RECORDS REQUEST

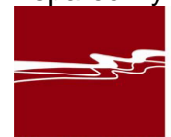
g.	Evidence of mandatory information required by the Monitoring and Reporting Program, Order No. 2013-0058-EXEC, such as the CIWQS SSO supporting documentation.					
K. SSMP PROGRAM AUDITS		YES	LOCATED WHERE?	NO	N/A	COMMENTS
K1 a.	Provide historical SSMP Program Audit Reports.					
L. COMMUNICATION PROGRAM		YES	LOCATED WHERE?	NO	N/A	COMMENTS
L1 a.	Provide the agency's Communication Program and evidence of its implementation.					



**Cuesta College
Sewer System Management Plan, Revision 1 – March 2016
Audit Report**

April 14, 2017

Prepared By:



WALLACE GROUP®

CERTIFICATION

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

Terry Reece

Director of Maintenance, Operations & Grounds – Cuesta College

TABLE OF CONTENTS

	Page Number
Scope and Purpose.....	1
Audit Format.....	2
SSMP Audit Participants and Schedule.....	3
Cuesta 2017 SSMP Audit Results.....	4
• Goal.....	7
• Organization.....	8
• Legal Authority.....	10
• Operations and Maintenance Program.....	11
• Design and Performance Provisions.....	14
• Overflow Emergency Response Plan.....	15
• Fats, Oils, and Grease Control Program.....	18
• System Evaluation and Capacity Assurance Plan.....	20
• Monitoring, Measurement, and Program Modifications.....	22
• SSMP Audit.....	24
• Communication Program.....	25
• SSMP Audit: Records Reviewed.....	27

SCOPE AND PURPOSE

The State Water Resources Control Board (SWRCB) Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Order No. 2006-0003-DWQ as amended by WQ 2013-0058-EXEC (herein SSSWDR Orders) require municipalities that own or operate sanitary sewage collection systems greater than one mile in length to implement and maintain a Sewer System Management Plan (SSMP). The Cuesta College (Cuesta) sewage collection system is greater than one mile in length therefore the Cuesta is required to comply with the terms of the Statewide Order.

The Cuesta has contracted with Wallace Group to complete an Audit of current SSMP in order to evaluate the effectiveness of the SSMP and its implementation.

The SSMP Audit measures compliance with section D.13 of the SSSWDR Orders and the effectiveness of Cuesta's implementation of the current certified SSMP; Revision 1 dated March 2016.

- 1.0 [SSSWDR, Section D.13.i]: Goals
- 2.0 [SSSWDR, Section D.13.ii]: Organization
- 3.0 [SSSWDR, Section D.13.iii]: Legal Authority
- 4.0 [SSSWDR, Section D.13.iv]: Operation and Maintenance Program
- 5.0 [SSSWDR, Section D.13.v]: Design and Performance Provisions
- 6.0 [SSSWDR, Section D.13.vi]: Overflow Emergency Response Plan
- 7.0 [SSSWDR, Section D.13.vii]: Fats, Oils, and Grease Control Program
- 8.0 [SSSWDR, Section D.13.viii]: System Evaluation and Capacity Assurance Plan
- 9.0 [SSSWDR, Section D.13.ix]: Monitoring, Measurement, and Program Modifications
- 10.0 [SSSWDR, Section D.13.x]: Sewer System Management Plan Program Audits
- 11.0 [SSSWDR, Section D.13.xi]: Communication Program

AUDIT FORMAT

This SSMP Audit separately evaluates each SSMP Section using the following format:

- Applicable SSSWDR Section
- Audit Finding
- Ranking
- Reference Information
- Deficiencies
- Recommended steps and schedule to correct Deficiencies

The ranking criteria utilized in the Audit are provided in Table 1 below:

Table 1: SSMP Audit Ranking Criteria

Ranking	Ranking Basis
In Compliance	All requirements specified in the section are met.
Substantial Compliance	The majority of requirements in the section are met.
Partial Compliance	Half of the requirements in the section are met
Marginal Compliance	Less than half of the requirements in the section are met.
Out of Compliance	None of the requirements in the section are met.

SSMP AUDIT PARTICIPANTS AND SCHEDULE

This SSMP Audit assesses the effectiveness of the District’s SSMP Revision 1, dated March 2016, and compliance with the SSSWDR Section D.13 requirements. The purpose of the Audit is to recognize accomplishments, identify deficiencies, and recommend corrective actions and a schedule to complete them. The Audit was conducted by the following Wallace Group Staff:

- Bill Callahan
Director Public Works Administration

Cuesta Staff participating in the SSMP Audit were:

- Terry Reece
Director of Maintenance, Operations & Grounds – Cuesta College
- Kathy Casey
Safety Compliance Coordinator – Cuesta College

The SSMP Audit was conducted in April 2017; the following table summarizes key dates and locations:

Table 2: Cuesta College SSMP, Revision 1, 2015 Audit Key Dates

Date	Location	Topic	Staff
March 24, 2017	WG Office	Submitted Data and Records Request to City.	Bill Callahan, Kathy Casey
April 14, 2017	Cuesta Facility Maintenance Office	SSMP Audit Kick Off, SSMP Data and Records Request reviewed and records gathered, begin drafting Audit Report.	Bill Callahan, Terry Reece, Kathy Casey
April 17, 2017	Cuesta Facility Maintenance Office	SSMP Draft Audit Report Submitted for Review	Bill Callahan, Terry Reece, Kathy Casey
May 12, 2017	Cuesta Facility Maintenance Office	SSMP Audit Final Report	Terry Reece Certification of report.

CUESTA 2017 SSMP AUDIT RESULTS

The SSMP Audit resulted in a finding that the Cuesta College SSMP dated March 2016 is in full compliance with seven (7) out of eleven (11) subsections (elements) of SSSWDR Section D.13, partial or substantial compliance in three (3) of the elements and marginal to out of compliance in one (1) of these elements. Cuesta has been partially effective in implementation of the SSMP.

This is an improvement when compared to the 2015 SSMP Audit findings when Cuestas SSMP was found to be in full compliance with four (4) out of eleven (11) subsections (elements) of SSSWDR Section D.13, partial or substantial compliance in three (3) of the elements and marginal to out of compliance in four (4) of these elements. Cuestas effectiveness to implement the SSMP received the same findings as the 2015 Audit – partially effective.

A summary of the results is presented in Table 3 below:

Table 3: Cuesta College SSMP Revision 1, March 2016 - Audit Results 2017

SSSWDR Section D.13	SSMP Compliance with Required Subsection	Cuesta Effectiveness in the Implementation of SSMP Subsections	Schedule
1.0 Goals [SSSWDR D.13(i)]	In Compliance	Cuesta has been effective in meeting the stated Goals for this Element.	N/A
2.0 Organization [SSSWDR D.13(ii)]	In Compliance	Cuesta has been effective in implementing this section, keeping relevant information up to date.	N/A
3.0 Legal Authority [SSSWDR D.13(iii)]	In Compliance	Cuesta is a self-regulating entity that maintains the required legal authorities to manage discharges to the Public Sewers.	N/A
4.0 Operation and Maintenance Program [SSSWDR D.13(iv)]	Substantial Compliance	Cuesta was partially effective in implementing this section. Formal documentation is required to document the Districts plan and schedule for sewer line cleaning, manhole inspections, CCTV inspections, staff training, and rehabilitation and repair activities. If these activities are deferred to a later date, a memo should be developed describing the reasons for	Provide formal documentation of Operations and Maintenance Program activities completed in 2017/2018.

SSSWDR Section D.13	SSMP Compliance with Required Subsection	Cuesta Effectiveness in the Implementation of SSMP Subsections	Schedule
		these deferrals and an amended schedule.	
5.0 Design and Performance Provisions [SSSWDR D.13(v)]	In Compliance	Cuesta has been effective in implementing these standards, for CIP projects.	N/A
6.0 Overflow Emergency Response Plan [SSSWDR D.13(vi)]	Substantial Compliance	Cuesta has been ineffective at implementing a comprehensive Emergency Response Program.	Train staff on this program and the associated procedures annually. Document all staff training.
7.0 Fats, Oils and Grease (FOG) Control Program [SSSWDR D.13(vii)]	In Compliance	N/A – No FOG Control Program necessary at this time.	A FOG Control Program is not anticipated as being necessary in the future due to the fact that there is only one (1) Food Service Establishments (FSEs) on Campus.
8.0 System Evaluation and Capacity Assurance Plan (SECAP) [SSSWDR D.13(viii)]	In Compliance	Cuesta was effective at implementing this section as identified in the 2016 SSMP by conducting CCTV investigations on 20% of the system.	Develop a plan to assess investigative efforts (CCTV and other inspections and monitoring) to assess the need for future capacity related CIP prior to 2020.

SSSWDR Section D.13	SSMP Compliance with Required Subsection	Cuesta Effectiveness in the Implementation of SSMP Subsections	Schedule
9.0 Monitoring, Measurement, and Program Modifications [SSSWDR D.13(ix)]	Substantial Compliance	Cuesta was partially effective at implementing this section as identified in the 2016 SSMP	Incorporate the Annual SSMP Assessment into the Appendix of this SSMP each year when complete.
10.0 SSMP Program Audits [SSSWDR D.13(x)]	In Compliance	Cuesta has been effective at implementing this section. The first SSMP Audit was due on or before May 2, 2017, and was completed in April 2017. Wallace Group recommends that Cuesta use its maintenance calendar to schedule the next SSMP Audit which will be due on or before August 2, 2019.	Include the 2017 SSMP Audit Report in the appendix to the SSMP.
11.0 Communication Program [SSSWDR D.13(xi)]	Marginal Compliance	Cuesta was ineffective in implementing this section of the SSMP. Future SSMP revisions should document Communication Program efforts conducted in 2017/18 in the appendix for this section of the SSMP.	Document Communication Program efforts in the appendix of the SSMP.

The following sections describe these observations in detail and address future additions and updates the Cuesta is required to make to its SSMP. The above list of updates is a summary and is not intended to replace the detailed deficiencies identified in the SSMP Audit Report. The entire SSMP Audit Report recommendations are recommended to be implemented in a reasonable time frame, which should be included in the next revision/update to the SSMP to ensure compliance with the SSS WDR Orders.

1.0 Goal [SSSWDR D.13(i)]

SSSWDR D.13(i) states:

The goal of the SSMP is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent SSOs, as well as mitigate any SSOs that do occur.

Section D.13(i): The Cuesta SSMP, Revision 1 dated March 2016 includes three (3) goals as listed below.

1. Maintain or improve the condition of the collection system infrastructure in order to provide reliable service now and into the future.
2. To provide adequate capacity to convey peak dry weather and wet weather wastewater flows.
3. Minimize the number and impact of Sanitary Sewer Overflows (SSOs).

Sufficiency: In Compliance

Reference: Cuesta SSMP, Revision 1, March 2016 Page 10.

Deficiencies: N/A. A review of Cuesta's CIWQS report shows no SSOs since the last update of the District's SSMP. Efforts are ongoing to evaluate the condition of the sewer system through CCTV investigations which are occurring at a rate of 20% per year for a goal to fully evaluate the system by 2020

Recommendation: Formally document and evaluate progress meeting these goals annually. Deliver a formal report documenting progress on meeting these goals to the Board of Directors annually. Adjust goals as necessary so they continue to be relevant to the District's system.

2.0 Organization [SSSWDR D.13(ii)]

SSSWDR D.13(ii) states:

The SSMP must identify:

- (a). The name of the responsible or authorized representative as described in Section J of this Order;
- (b). The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and
- (c). The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services).

Finding: *Section D.13 (ii)(a):* The Director of Maintenance, Operations and Grounds; Terry Reece is the named Legally Responsible Official (LRO) for Cuesta College. This is consistent with the position identified in the SSMP and in the CIWQS Facility At-A-Glance Report.

Conclusion: The section above is in compliance with *Section D.13 (ii)(a)*.

Finding: *Section D.13(ii)(b):* The names and telephone numbers of staff responsible for implementation of the SSMP are included on pages 12 – 18 of the SSMP and in Appendix B. Figure 2-1 and Table 2-1 demonstrate SSMP organization chart and roles and responsibilities.

Conclusion: The section above is in compliance with *Section D.13(ii)(b)*.

Finding: *Section D.13(ii)(c):* A chain of communication for reporting sanitary sewer overflows (SSOs) is provided on Page 17 of the SSMP. Figure 2-1, Chain of Communication for Responding to Sewer System Overflows, provides a flowchart of how the SSO chain of communication works. The chain of communication and summary of SSO response includes information required in the 2013 Monitoring and Reporting (MRP) requirements. These amendments identify three Categories of SSOs rather than two and now require all spill information to be reported to Cal OES.

Conclusion: The section above is in with *Section D.13(ii)(c)*. See recommendations below.

Sufficiency: In Compliance

Reference: Cuesta SSMP 2016, Revision 1, Pages 11 -18, SSMP Appendix A, CIWQS Facility At-A-Glance Report (March 27, 2017).

Deficiencies: N/A

Recommendation: Monitor and update all Cuesta and Contracted staff contact information on an ongoing basis so this information is current and up to date. Include all wastewater staff names, phone numbers and positions in future updates to the SSMP.

3.0 Legal Authority [SSSWDR D.13(iii)]

SSSWDR D.13(iii) states:

Each Enrollee must demonstrate, through sanitary system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:

- (a). Prevent illicit discharges into its sanitary sewer system (examples include I/I, storm water, chemical dumping, unauthorized debris and cut roots, etc.);
- (b). Require that sewers and connections be properly designed and constructed;
- (c). Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;
- (d). Limit the discharge of fats, oils, and grease and other debris that may cause blockages; and
- (e). Enforce any violation of its sewer ordinances.

Finding: *Section D.13(iii)(a-e)*: The San Luis Obispo County Community College District is a self-regulating Community College within the California Community College system, with publicly elected officials as its governing Board. Under this authority, the District/Cuesta College has legal authority to:

- Prevent illegal discharges into its system (e.g., storm water or chemical dumping).
- Require that sewers and connections be properly designed and constructed.
- Ensure proper installation, testing, and inspection of new and rehabilitated sewers (such as new or rehabilitated collector sewers and new or rehabilitated laterals).
- Ensure access for maintenance, inspection, or repairs of all portions of the system operated by the District.
- Limit fats and greases and other debris that may cause blockages in the collection system.

Conclusion: The section above is in compliance with *Section D.13(iii)(a-e)*.

Sufficiency: In Compliance

Reference: Cuesta March 2016 SSMP, Revision 1, Pages 19 – 21.

Deficiencies: None.

Recommendation: None.

4.0 Operation and Maintenance Program [SSSWDR D.13(iv)]

SSSWDR D.13(iv) states:

The SSMP must include those sections listed below that are appropriate and applicable to the Enrollee's system:

- (a). Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable storm water conveyance facilities;
- (b). Describe routine preventive and operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) Program should have a system to document scheduled and conducted activities, such as work orders;
- (c). Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed to the capital improvement plan;
- (d). Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and
- (e). Provide equipment and replacement part inventories, including identification of critical replacement parts.

Finding: *Section D.13(iv)(a)*: All major sewer assets and appurtenances are identified in Cuesta's GIS Sewer Atlas Map referenced in the March 2016 SSMP. This mapping system also includes a storm water collection conveyance layer, showing storm water assets that may be impacted by a SSO. An example of the sewer and storm drain atlases are included in Appendix B. The sewer system has not undergone any changes since 2011 therefore the current version of the sewer system atlas is up to date.

Conclusion: The section above is in compliance with *Section D.13(iv)(a)*. See recommendations section below.

Finding: *Section D.13(iv)(b)*: The March 2016 SSMP summarizes goals and Routine Preventative Operation and Maintenance (O&M) for Pipelines and Manholes.

The current SSMP identifies a sewer line cleaning schedule as being conducted on an “as needed” basis. Beginning in 2016 the District plans to begin cleaning 20% of the collection and conveyance system annually. The District developed a template to document findings observed during line cleaning and manhole inspections as part of the 2016 SSMP Update. Routine visual manhole inspections were scheduled to be conducted in conjunction with sewer line cleaning covering 20% of the systems manholes annually. During this audit there were no records demonstrating sewer line cleaning and inspections had occurred. Work orders are discussed as a method of scheduling and documenting sewer O&M activities. The District reported that there have been no work orders generated for the sewer system as no required maintenance activities were identified in the past 2 years.

Cuesta’s SSMP reports that 20% of the system will be inspected by CCTV annually beginning in 2016. The District completed CCTV investigations in “Area 1” of the system and plans to complete an assessment of this data in a final report scheduled for completion in 2020. In the event significant defects are identified during future CCTV work prior to 2020, the District plans to assess the extent of the defect and need for repair.

The results of future sewer line cleaning, manhole inspections and CCTV investigations should be tracked and included in the SSMP on an annual basis. Templates provided in the SSMP should be used for the inspection of all sewer assets. Summaries should include flow conditions, cleaning activities and their effectiveness, and the physical condition of each manhole. A ranking system should be developed and/or identified for sewer line and manhole evaluations. A summary of; visual and CCTV investigations, sewer line cleaning, and manhole inspection records should be included in the SSMP to assist in the development of future rehabilitation and replacement projects within the collection system.

Conclusion: The section above is in partial compliance with *Section D.13(iv)(b)*. See recommendations section below.

Finding: *Section D.13(iv)(c)*: The Cuesta SSMP states that 50% of the trunk sewer system was replaced/upgraded in 2011 to address deteriorating portions of the system and areas subject to Inflow and Infiltration (I/I). These projects were based on the results of a Facilities Master Plan study conducted in 2005. A recent Bond Measure was passed for Campus wide infrastructure rehabilitation in the amount of \$ 275 million. The annual Budget based on this source of funding allocates \$250,000 for sewer improvements throughout the campus. There are currently no specific projects identified in the SSMP as part of the rehabilitation or replacement program or as a result of District sewer system condition assessments. The District will be evaluating all inspection data for the sewer system in 2020 and assess the need for rehabilitation and replacement projects at that time. The District’s budget for potential rehabilitation and replacement projects is provided in a link to the District’s website:
http://cuesta.edu/departments/documents/fiscal-docs/Adopted_Budget_2015-2016.pdf.

Conclusion: The section above is in compliance with *Section D.13(iv)(c)*. See recommendations section below.

Finding: *Section D.13(iv)(d)*: The March 2016 SSMP states that staff is trained on new equipment as warranted and individual job descriptions require the skill sets necessary to conduct tasks associated with sewer system O&M. Job descriptions were reviewed during the audit. Staff proficiency is assessed annually during performance reviews. The majority of scheduled system maintenance such as sewer line cleaning and CCTV inspections are completed by outside contractors.

Conclusion: The section above is in compliance with *Section D.13(iv)(d)*. See recommendations section below.

Finding: *Section D.13(iv)(e)*: A list of collection system critical parts and equipment was in Appendix “B” of the SSMP.

Conclusion: The section above is in compliance with *Section D.13(iv)(e)*. See recommendations section below.

Sufficiency: Substantial Compliance

Reference: Cuesta SSMP Rev 1: March 2016.

Deficiencies: Formal documentation is required to document the Districts plan and schedule for sewer line cleaning, manhole inspections, CCTV inspections, staff training, and rehabilitation and repair activities. If these activities are deferred to a later date, a memo should be developed describing the reasons for these deferments and an amended schedule.

Recommendation: The following are recommended activities for the future:

- Develop a system for analyzing and ranking CCTV and manhole inspection results. Summarize CCTV and manhole inspection results as they occur over the course of future Fiscal Years.
- Document line cleaning activities and any observations made in the field during line cleaning.
- Develop a formal Rehabilitation and Replacement (R&R) plan that incorporates CCTV sewer line condition assessments and future manhole inspection data. Develop a short- and long-term CIP completion schedule based on the results of these inspections.
- Future Budgets should be included in future revisions of the SSMP to identify pending projects for the Fiscal Year.

5.0 Design and Performance Provisions [SSSWDR D.13(v)]

SSSWDR D.13(v) states:

- (a). Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations, and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and
- (b). Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

Finding: *Section D.13(v)(a)*: Cuesta states in the SSMP that it utilizes: 2011 County of San Luis Obispo Sewer Design Standards and Specifications. A link to these standards and specifications are provided in the SSMP:

- o <http://www.slocounty.ca.gov/PW/DevServ/PublicImprovementStandards.htm>

Copies of applicable Design Standards and Specifications are included in Appendix “C” of the District SSMP.

All design and construction plans for Cuesta sewers are developed by licensed and registered engineers.

Conclusion: The section above is in compliance with *Section D.13(v)(a)*.

Finding: *Section D.13(v)(b)*: Procedures and standards for the acceptance testing and inspection of new and repaired sewer main and appurtenances are also found in the previously mentioned; 2011 County of San Luis Obispo Sewer Design Standards and Specifications. Copies of applicable standards for the acceptance testing and inspection of new and repaired sewer main and appurtenances are included in Appendix “C” of the District SSMP.

Conclusion: The section above is in compliance with *Section D.13(v)(b)*.

Sufficiency: In Compliance

Reference: Cuesta 2016 SSMP and 2016 SSMP Appendix “C”: Revision 1 March 2016, 2011 County of San Luis Obispo Sewer Design Standards and Specifications

Deficiencies: N/A

Recommendation: Update this section of the SSMP if new standards are adopted or the County of San Luis Obispo adopts new standards and specifications.

6.0 Overflow Emergency Response Plan (OERP) [SSSWDR D.13(vi)]

SSSWDR 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 identifies the officials who will receive immediate notification;
- (d). Procedures to ensure that appropriate staff and contract personnel are aware of and follow the Emergency Response Plan 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 and prevent the discharge of untreated or partially treated wastewater to waters of the United States and minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

Finding: *Section D.13 (vi)(a):* Cuesta's SSMP provides a comprehensive overview of how notification procedures are followed to ensure primary responders and regulatory agencies are informed of a SSO in a timely manner. Specific procedures related to primary response and regulatory notifications were developed in 2016 and are located in Appendix "D" of the District's SSMP.

Finding: *Section D.13 (vi)(b):* A general description of equipment and actions necessary to respond to a SSO is included in the SSMP. A program and associated organizational flow chart or summary showing key positions and their responsibility to ensure appropriate response to all overflows is included in the OERP, March 2016.

Finding: *Section D.13 (vi)(c):* A general description of the current notification process is included in this section of the SSMP and is consistent with State Board Order 2013-0058-EXEC adopted in July 2013. Specific procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities were developed in 2016 and are

included in Appendix “D” of the District SSMP. Individual emergency operating procedures identified below were reviewed:

- SS-EOP: SSO Notification
- SS-EOP: SSO Reporting

Finding: *Section D.13 (vi)(d):* The SSMP includes specific procedures to ensure appropriate staff and contractor personnel are trained on the OERP. The following SSO emergency response procedures were reviewed during the audit:

- SS-EOP: Overflow Emergency Response Plan
- SS-EOP: SSO Training Requirements

Finding: *Section D.13 (vi)(e-f):* Procedures to address emergency operations, such as emergency traffic and crowd control, surface water quality monitoring, and other necessary response activities were developed as part of the in the 2016 SSMP Update. Formal procedures that are specific to the Cuesta sewer system were developed, adopted, and incorporated into Cuesta’s Emergency Response Program and referenced in the SSMP. Examples of these procedures are as follows:

- SS-EOP: SSO Traffic and Crowd Control
- SS-EOP: SSO Volume Estimation
- SS-EOP: SSO Mitigation and Cleanup
- SS-EOP: SSO Response Documentation and Records

Conclusions: The sections above are in partial compliance with *Sections D.13 (vi)(a-f)*. See recommendations below.

Sufficiency: Substantial Compliance

Reference: Cuesta March 2016 SSMP Revision 1, Cuesta OERP and Emergency Operating Procedures.

Deficiencies: While an Overflow Emergency Response Plan (OERP) and Emergency Operating Procedures (EOPs) have been developed and are compliant with the General Waste Discharge Requirements and 2013 Monitoring and Reporting Program, there was no evidence at the time of this audit that staff was familiar with the OERP and associated Procedures. Records demonstrating training on these Procedures and the OERP were not available at the time of this Audit.

Recommendation: An emergency response program with associated procedures is included as part of the SSMP. Monitoring and reporting procedures are in compliance with Monitoring and Reporting Requirements adopted in by the State Water Board in 2013. Train staff annually

on this OERP and the associated procedures. Document all staff training. Update each procedure and the OERP as conditions warrant.

7.0 Fats, Oils, and Grease (FOG) Control Program [SSSWDR D.13(vii)]

SSSWDR D.13(vii) states:

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

- (a). An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;
- (b). A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;
- (c). The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;
- (d). Requirements to install grease removal devices (such as traps or interceptors) and the development of design standards for such devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;
- (e). Authority to inspect grease producing facilities, enforcement authorities, and whether the Cuesta has sufficient staff to inspect and enforce the FOG ordinance;
- (f). An identification of sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and
- (g). Development and implementation of source control measures for all sources of FOG discharged to the sewer system for each section identified in (f) above.

After the issuance of the Statewide General WDRs in 2006, Cuesta College determined that FOG is not an on-going problem in the sewer collection system and a FOG Program was not necessary. Cuesta identified one (1) Food Service Establishments in its service area and details the maintenance policy/procedure in place for management of FOG at this location.

Finding: *Section D.13(vii)(a-e)*: N/A

Conclusion: The section above is in compliance with *Section D.13(vii)(a-e)*.

Sufficiency: In Compliance

Reference:

- SSMP Revision 1, March 2016 p. 41-43
- CIWQS SSO Public Report – Cuesta College: Detail Page

Deficiencies: N/A

Recommendation: Monitor the system for potential FOG related Hot Spots and if FOG becomes an issue in the future, identify and implement steps to mitigate FOG within the system.

8.0 System Evaluation and Capacity Assurance Plan [SSSWDR D.13(viii)]

SSSWDR D.13(viii) states:

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

- (a). **Evaluation:** Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to a SSO discharge deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;
- (b). **Design Criteria:** Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria; and
- (c). **Capacity Enhancement Measures:** The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.
- (d). **Schedule:** The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D.14.

Findings: *Section D.13(viii)(a-d):* The Cuesta SSMP discusses the following in regards to SECAP efforts:

- Completion of upgrades to approximately 50% of the system trunk lines in 2011, conducted to address defects and I/I which were contributing to capacity restrictions in the system,
- A plan to conduct additional investigations in the newly replaced system and existing system utilizing; visual inspections, CCTV and flow monitoring data to assess additional capacity needs. These investigations and a final report are scheduled for completion by 2020,
- Cuesta's current understanding of the system is that there is now sufficient capacity during both dry and wet weather to safely convey flows now and into the future as the campus is currently at "build out" and the system is performing as designed to meet build out capacity requirements.

Cuesta reports that there are no current capacity restrictions for wet and dry weather and Cuesta has not experienced a Sanitary Sewer Overflow (SSO) due to capacity restrictions since the development of the SSMP. This appears to indicate no additional SECAP activities will be required in the future unless conditions warrant additional monitoring or studies. The plan and schedule to assess system conditions appears to be “on track” for completion in 2020.

Conclusion: The section above is in compliance with *Section D.13(viii)(a-d)*. See recommendations below.

Sufficiency: In Compliance

Reference: Cuesta March 2016 SSMP Rev 1.

Deficiencies: N/A

Recommendation: Continue to update the plan and schedule for completion of the City’s Sewer Modeling, CCTV investigations and associated CIP in the future revisions and updates to the SSMP. Include a formal assessment report in 2020 discussing the condition assessment which is currently in the process of being completed. Include the analysis and plan to fund capital improvement projects if it is determined additional capacity related CIP is necessary.

9.0 Monitoring, Measurement, and Program Modifications [SSSWDR D.13(ix)]

SSSWDR D.13(ix) states:

The Enrollee shall:

- (a). Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;
- (b). Monitoring the implementation and, where appropriate, measure the effectiveness of each section of the SSMP;
- (c). Assess the success of the preventative maintenance program;
- (d). Update program sections, as appropriate, based on monitoring or performance evaluations; and
- (e). Identify and illustrate SSO trends, including: frequency, location and volume.

Finding: *Section D.13(ix)(a):* Cuesta currently maintains relevant information necessary to establish and prioritized SSMP activities in the SSMP through monthly CIWQS reports. As of this date there have been no significant issues that would warrant restructuring of SSMP activities, as there has not been a history of SSOs. When additional maintenance activities begin (line cleaning, manhole assessments and CCTV), these records should be analyzed to determine if future changes are warranted.

Conclusion: The section above is in compliance with *Section D.13(ix)(a)*. See recommendations below.

Finding: *Section D.13(ix)(b) and (c):* Cuesta does not formally evaluate on an annual basis the implementation or effectiveness of each section of the SSMP or preventative maintenance activities.

Conclusion: The section above is out of compliance with *Section D.13(ix)(b) and (c)*. See recommendations below.

Finding: *Section D.13 (ix)(d):* The Cuesta SSMP has not been revised since its last update. Revisions should be based on a formal annual monitoring or performance evaluation of each SSMP section and supporting programs. While annual monitoring did not occur, the District has not experienced SSOs, sewer related complaints or emergencies since the last update to the SSMP which is an indicator that significant updates to the management plan were not warranted.

Conclusion: The section above is in substantial compliance with *Section D.13 (ix)(d)*. See recommendations below.

Finding: *Section D.13(ix)(e):* The Cuesta SSMP includes a template/matrix to track the frequency, location, and cause, of SSOs. While this template has not been updated, it is

important to note, there have been no SSOs since 2010, therefore there have been no SSOs to track or evaluate.

Conclusion: The section above is in substantial compliance with *Section D.13(ix)(e)*. See recommendations below.

Sufficiency: Substantial Compliance

Reference: Cuesta SSMP March 2016 Revision 1, CIWQS Report March 27, 2017.

Deficiencies: Cuesta did not implement the plan identified in their 2016 SSMP to formally evaluate and update their SSMP on an annual basis.

Recommendation: Implement the written program to schedule, track, and evaluate the effectiveness of preventative maintenance for the sanitary sewer system. Create a plan and schedule to review and assess the effectiveness of each SSMP section annually. Update written record of SSO trend evaluation and identification at the end of each calendar year. Complete these plans and records and incorporate them into the update of this SSMP Section. Complete an annual report to the District Board on the results of these evaluations.

10.0 Sewer System Management Plan Program Audit [SSSWDR D.13(x)]

SSSWDR D.13(x) states:

As part of the SSMP, the Enrollee shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the Enrollee's compliance with the SSMP requirements identified in this subsection (D.13), including identification of any deficiencies in the SSMP and steps to correct them.

Sufficiency: In Compliance

Reference: Cuesta SSMP March 2016 Revision 1, Page 54-57 and SSMP Audit Report, July 2015

Deficiencies: Cuesta's SSMP commits to conducting internal SSMP audits every 2 years. The 1st audit was scheduled for May 2014 however this task was not completed until July 2014. Audits are required to be conducted within 2 years of the adoption of each agency SSMP, based on the schedule identified in section D. 15 of SSSWDRs. The District chose to amend the SSMP Audit schedule based on the July 2015 completion date. While this amendment is not in compliance with the specific date required based on the SSMP adoption, it appears to be compliant with the intent of the specified Audit requirements. The District's SSMP provides an Audit schedule with Audits planned by the following dates:

- *May 2, 2017: This Audit Report meets this schedule with the Audit conducted in April 2017*
- *May 2, 2019*
- *May 2, 2021*
- *May 2, 2023*

Recommendation: The next bi-annual audit is due prior to May 2, 2019, based on the amended schedule shown above. Schedule future SSMP Audits prior to the bi-annual date to ensure compliance with this section utilizing a format that meets the requirements found in Section D. 13 of the SSSWDRs.

11.0 Communication Program [SSSWDR D.13(xi)]

SSSWDR D.13(i) states:

The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.

The Enrollee shall also create a plan of communications with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.

Section D.13 (xi): The Cuesta SSMP commits to; communicating on a regular basis with the public, students, and faculty on the development, implementation, and performance of its SSMP and that the communication system will provide the public the opportunity to provide input to the District's program while being developed and prior to implementation. Additional outreach is identified and scheduled for educating the public and satellite systems on proper use of the District sewer systems. At the time of this audit, there was no evidence that this communication plan had been implemented with the exception of Cuesta's SSMP which is currently posted on the City's website: <http://www.cuesta.edu/about/depts/facilities/index.html>. This version of the SSMP is not certified by the LRO and should be signed and uploaded to the District website with any additional revisions as soon as possible.

Cuesta has identified satellite/tributary systems (facilities) connected to their sewer system in the SSMP. Two minor facilities are considered tributary to the Cuesta sanitary sewer system, The County Office of Education and County of San Luis Obispo General Services. The District committed to conducting outreach as a proactive measure to communicate with these facilities on standard operation and maintenance procedures for their systems. At the time of this audit, there was no indication that these communications had taken place.

Sufficiency: Marginal Compliance

Reference: Cuesta SSMP March 2016 Revision 1, Page 58-60, Cuesta website: <http://www.cuesta.edu/about/depts/facilities/index.html>.

Deficiencies: Cuesta has not implemented the majority of the commitments identified in communication program. With the exception of the SSMP being posted on the Cuesta website, there have been no efforts to report to members of the public on the implementation of the SSMP and no evidence of communication with satellite agencies. The version of the SSMP is not certified by the LRO and should be signed and uploaded to the District website as soon as possible.

Recommendation: Implement the plan and schedule identified in the SSMP for the District's Communication Program that involves the Cuesta Council, members of the public and satellite facilities. Keep a record of all outreach efforts and coordination as supporting documentation for

this section of the SSMP. Document all communications completed relevant to the SSMP and supporting programs. Complete the certification page with the signature of the LRO and upload to the Districts website.

Records List by SSMP Section

- 1.0 Goals – See Records under Sections 3 - 11**
- 2.0 Organization**
 - a. SWRCB CIWQS Facility at a Glance Cuesta College: March 27, 2017
- 3.0 Legal Authority**
 - a. None
- 4.0 Operation and Maintenance Program**
 - a. Sewer and Storm Water GIS Atlas
 - b. Job Description: Skilled Maintenance – Plumber Levels I & II
 - c. CCTV Data: “Area 1”
- 5.0 Design and Performance Standards**
 - a. SLO County Public Works 2011 Public Improvement Standards
- 6.0 Overflow Emergency Response Plan**
 - a. Appendix D: SSO Emergency Response Procedures
- 7.0 Fats, Oils, and Grease Program**
 - a. N/A
- 8.0 System Evaluation and Capacity Assurance Plan (SECAP)**
 - a. None
- 9.0 Monitoring, Measurement, and Program Modifications**
 - a. SWRCB CIWQS Facility at a Glance and Cuesta Operational Report
- 10.0 SSMP Audits**
 - a. SSMP Audit Report – July 2015
- 11.0 Communication Program**
 - a. Cuesta Website: <http://www.cuesta.edu/about/depts/facilities/index.html>
 - b. Appendix H – “Toilets are Not Trashcans” flyer

Appendix I – Communication Program

- 1) Outreach Examples
- 2) Satellite System Memos

We need everyone's help...

Toilets Are **Not** Trashcans!



Many household cleaning products are labeled and marketed as disposable; many baby hygiene products are labeled both disposable and flushable. And while these products may be marketed as a convenience item in this way, the truth is that these household wipers and cleaning towelettes have the ability to clog and stop up not only the sewer line on your property, but also can cause blockage and service problems in the public sewer system and pump stations. Unlike toilet paper, these products don't break down once they are flushed. They can cause blockages in a private service lateral, especially older pipelines that may have grease,

roots, or other obstructions already existing.



A repair of the private service lateral can leave the homeowner with a nasty repair bill. On a larger

scale when these products make their way into the public sewer system they collect together and cause clogs in the sewer main lines and get tangled in pump stations causing sewer overflows and requiring repair or replacement of equipment.

The following items should **never** be flushed into the sewer system:

- Disinfecting wipes, Baby wipes.
- Q-tips.
- Toilet cleaning pads.
- Mop or "Swiffer" type refills.
- Paper towels.
- Moist towelettes.
- Any consumer item that is not toilet paper.

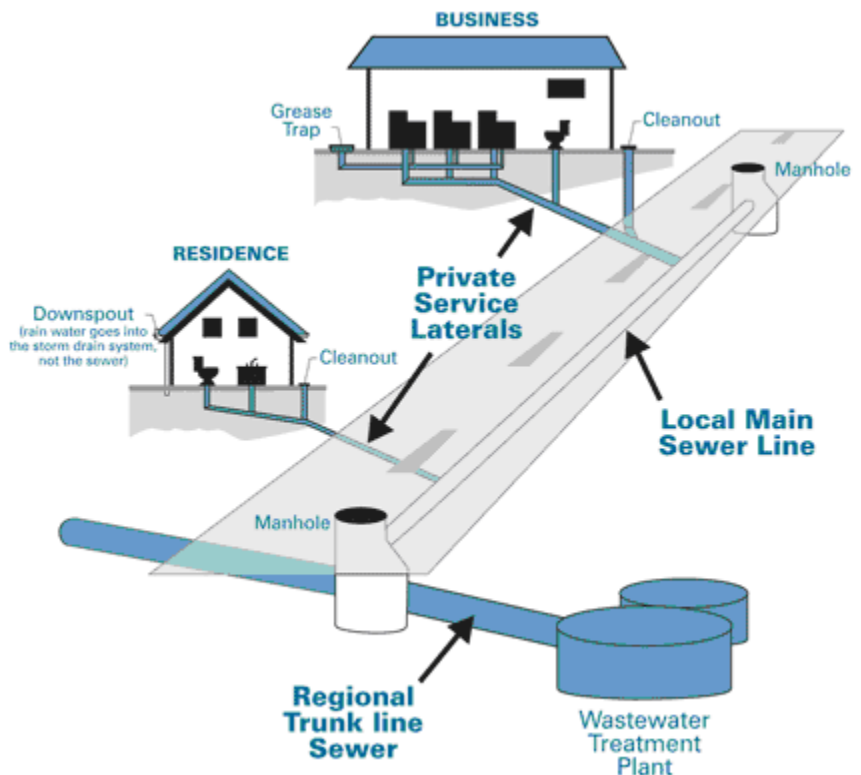


Diagram of a sanitary sewer system