SEWER SYSTEM MANAGEMENT PLAN

November 2021 Rev 3

Prepared for:
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Table of Contents

Certification Statement	3
List of Acronyms and Abbreviations	4
Plan Introduction	5
Element 1 – Goals	
Element 2 - Organization	12
Element 3 - Legal Authority	
Element 4 – Operations and Maintenance	
Element 5 – Design & Performance Provisions	29
Element 6 - Overflow Emergency Response Plan	
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	
Element 11 –Communication Program	58
Appendix A – Facilities Organization Chart	60
Appendix B – Operations and Maintenance	62
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	
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.

Brian McAlister

Director of Facilities Services, Planning and Capital Projects

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:

- 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 southeast 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 - Revision Record

The Cuesta College SSMP Element 1 – Goals has undergone the following revisions:

Revision No.	Revision Date	Description of Revisions	Revision Completed By	Revision Approved By
0	June 2012	Formally Adopt SSMP.	Wallace Group	Board of Trustees
1	March 2016	Revisions based on findings of biannual audit.	Wallace Group	Terry Reece
2	May 2018	N/A	N/A	N/A
3	November 2021	Revisions based on findings of biannual audit.	Wallace Group	Jake Parsons & Brian McAlister
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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 impacts of Sanitary Sewer Overflows (SSOs).

Element 2 - Revision Record

The Cuesta College SSMP Element 2 – Organization has undergone the following revisions:

Revision No.	Revision Date	Description of Revisions	Revision Completed By	Revision Approved By
0	June 2012	Formally Adopt SSMP.	Wallace Group	Board of Trustees
1	March 2016	Revisions based on findings of biannual audit.	Wallace Group	Terry Reece
2	May 2018	N/A	N/A	N/A
3	November 2021	Revisions based on findings of biannual audit.	Wallace Group	Jake Parsons & Brian McAliste
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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 apprises 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
Brian McAlister	Director of Facilities Services, Planning and Capital Projects	Legally Responsible Official
Jacob Parsons	Safety Compliance Coordinator	Data Submitter
Nikki Rocha	Facilities Services	Data Submitter

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
Brian McAlister Director of Facilities Services, Planning and Capital	The Director directs the Operations and Maintenance and contracted staff in the management of all eleven (11) SSMP Elements.	(805) 610-1145 Cell (805) 546-3100 ext – 2699 Office
Projects		E-mail: Bmcalist@cuesta.edu
Cuesta College		

Name and Title	SSMP Responsibilities	Contact Information
Administrative Staff Cuesta College	The District's administrative staff receive phone calls, e-mails, and faxes form the public and provides information to the Operations and Maintenance, to assist with the implementation of:	(805) 546-3283 Office
r . /age	 Element 4 – Operation and Maintenance Program; Element 6 – Overflow 	army T = 1
	Emergency Response Plan; - Element 11 – Communication Program.	1 1 10
	In a SSO response, could provide a carefully pre-scripted message for citizens who call with general questions.	militaria di salah s
Director of Facilities Services, Planning and Capital Projects Cuesta College Steve Tanaka	 Wallace Group assists the Director as requested in the management the CIP and design and inspection services in the implementation of: Element 4 – Operation and Maintenance Program, Rehabilitation and Replacement Plan; 	(805) 544-4011 Office E-mail: StevenT@wallacegroup.us
Contracted Engineers Wallace Group – Contract with Cuesta College	 Element 5 – Design and Performance Provisions; and Element 8 – System Evaluation and Capacity Assurance Plan. 	
Sean Frazier District Plumber	 Performs routine operation, preventative maintenance, and repair and major maintenance services for as described in Element 4 – Operation and Maintenance Program. 	(805) 674-2881 Office
Cuesta College	 Communicates maintenance results to District Director 	
I VI WIN VIN III	 Responsible under the direction of the District Director for the following SSMP Elements: 	

Name and Title	SSMP Responsibilities	Contact Information
	 Element 4 – Operation and Maintenance Program; Element 6 – Overflow Emergency Response Plan Major O&M activities such as annual line cleaning will be conducted by contracted staff. 	
Jake Parsons	■ SSMP Reporting & Training	(805) 835-1317
Campus Safety Officer	T a region t	
Cuesta College		

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.

- 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.
- The Director may notify the Vice President, Board of Trustees or other staff as necessary.
- 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.

Observer Director Notifies <u>If Hazardous Substan</u>ces After-hours, 805-610-1145 District Message Directs Caller Are Involved 805-546-3283 805-546-3205 Supervisor 559-978-9217 Director **Lead Plumber CALFire** 805-610-1145 805-674-2881 805-543-4244 Board of **Trustees** Supervisor 559-978-9217 **SLO County** If Hazardous Lead Plumber Substances Are Involved EH/Haz Mat 805-674-2881 Division 805-781-5544 Board of Director 805-610-1145 Trustees SSO Notification and Reporting to Appropriate Agencies

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 – Revision Record

The Cuesta College SSMP Element 3 – Legal Authority has undergone the following revisions:

Revision No.	Revision Date	Description of Revisions	Revision Completed By	Revision Approved By
0	June 2012	Formally Adopt SSMP.	Wallace Group	Board of Trustees
1	March 2016	Revisions based on findings of biannual audit.	Wallace Group	Terry Reece
2	May 2018	Revisions update information on organizational links.	Wallace Group	Terry Reece
3	November 2021	Revisions based on findings of biannual audit.	Wallace Group	Jake Parsons & Brian McAlister
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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 - Revision Record

The Cuesta College SSMP Element 4 – Operations and Maintenance has undergone the following revisions:

Revision No.	Revision Date	Description of Revisions	Revision Completed By	Revision Approved By
0	June 2012	Formally Adopt SSMP.	Wallace Group	Board of Trustees
1	March 2016	Revisions based on findings of biannual audit.	Wallace Group	Terry Reece
2	May 2018	Updates to reflect changes in operations and maintenance schedules, CCTV investigations & CCTV analysis. Links to budget documents were also updated.	Wallace Group	Terry Reece
3	November 2021	Revisions based on findings of biannual audit.	Wallace Group	Jake Parsons & Brian McAlister
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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 majority of the 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, CCTV investigations and SSMP compliance.

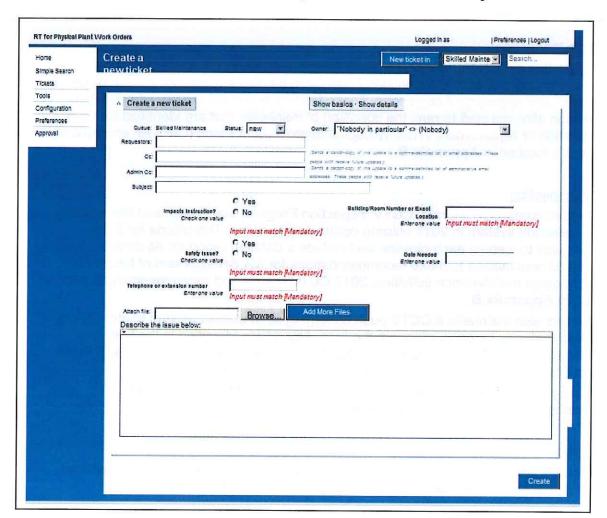


Figure 4-1. District Physical Plant Work Order System

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 \$500,000 for deferred maintenance, repairs which includes necessary 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 2021-2022.pdf. In the next five (5) years, root treatment is planned for approximately 700 feet of sewer hot spots. Approximately 400 feet of sewer line is also planned for upgrade/replacement

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 - Revision Record

The Cuesta College SSMP Element 5 – Design and Performance Provisions has undergone the following revisions:

Revision No.	Revision Date	Description of Revisions	Revision Completed By	Revision Approved By
0	June 2012	Formally Adopt SSMP.	Wallace Group	Board of Trustees
1	March 2016	Revisions based on findings of biannual audit.	Wallace Group	Terry Reece
2	May 2018	N/A	N/A	N/A
3	November 2021	Revisions based on findings of biannual audit.	Wallace Group	Jake Parsons & Brian McAlister
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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 - Revision Record

The Cuesta College SSMP Element 6 – Overflow Emergency Response Plan has undergone the following revisions:

Revision No.	Revision Date	Description of Revisions	Revision Completed By	Revision Approved By
0	June 2012	Formally Adopt SSMP.	Wallace Group	Board of Trustees
1	March 2016	Revisions based on findings of biannual audit.	Wallace Group	Terry Reece
2	May 2018	Updates to reflect addition of Emergency Operating Procedures and changes in training on OERP procedures.	Wallace Group	Terry Reece
3	November 2021	Revisions based on findings of biannual audit.	Wallace Group	Jake Parsons & Brian McAlister
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Element 6 - Overflow Emergency Response Plan

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

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 on file at the District Facilities Maintenance Office. Training on these procedures is conducted annually so they can be implemented effectively 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/).

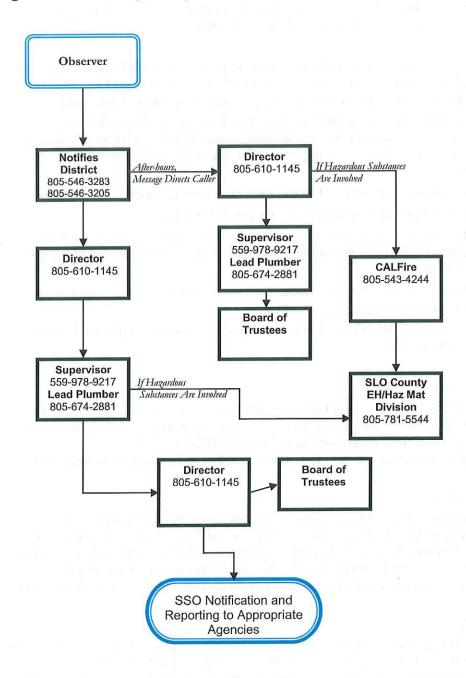
When District Staff members notice an SSO during the course of their regular activities, they immediately notify the main office and begin responding to the situation immediately, if applicable.

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.
- 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, centralcoast@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, centralcoast@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, centralcoast@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.

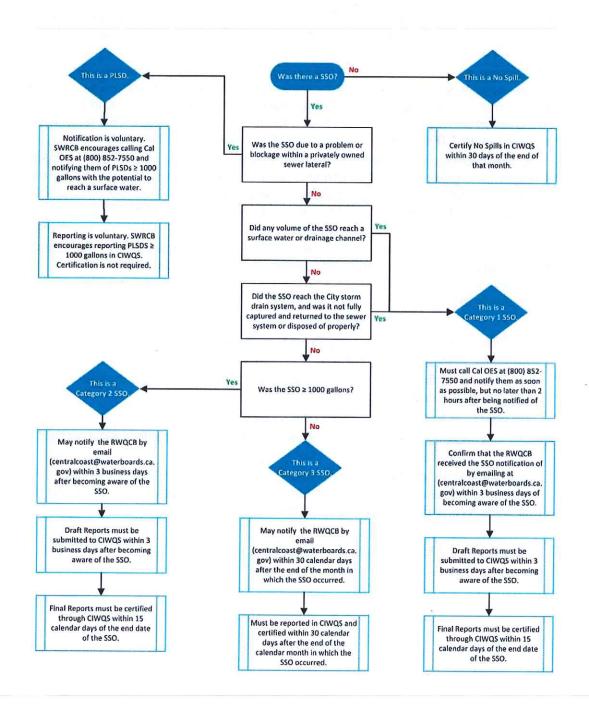
SWRCB also encourages notifying the appropriate regulatory agencies or notifying the responsible party that notification and reporting should be completed as required by Health and Safety Code Section 5410 et. seq. and Water Code Section 13271 if the PLSD is greater than or equal to 1,000 gallons regardless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

It should be noted that all sewer laterals on the Cuesta Campus are not considered "private". Any SSO occurring from one of the Districts sewer laterals must be considered as similar to a SSO occurring in a sewer main line and reported as it were a sewer main.

- 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, the Director or Directors designee should email RWQCB Staff, at centralcoast@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, the Director or Directors designee may email RWQCB Staff, at centralcoast@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, the Director or Directors designee may email RWQCB Staff, , at centralcoast@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.

It should be noted that all sewer laterals on the Cuesta Campus are not considered "private". Any SSO occurring from one of the Districts sewer laterals must be considered as similar to a SSO occurring in a sewer main line and reported as it were a sewer main.

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).
 - 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.

It should be noted that all sewer laterals on the Cuesta Campus are not considered "private". Any SSO occurring from one of the Districts sewer laterals must be considered as similar to a SSO occurring in a sewer main line and reported as it were a sewer main.

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, Walter Mobley, at

Walter.Mobley@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 maintain training records at the Facilities Maintenance Office 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

Element 7 - Revision Record

The Cuesta College SSMP Element 7 – Fats, Oils and Grease Control has undergone

the fol	lowing	revisions:
THE TO	IOWING	ICVISIONS.

Revision No.	Revision Date	Description of Revisions	Revision Completed By	Revision Approved By
0	June 2012	Formally Adopt SSMP.	Wallace Group	Board of Trustees
1	March 2016	Revisions based on findings of biannual audit.	Wallace Group	Terry Reece
2	May 2018	Revisions include FOG Program Outreach Materials	Wallace Group	Terry Reece
3	November 2021	Revisions based on findings of biannual audit.	Wallace Group	Jake Parsons & Brian McAlister
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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 D** 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 D**.

Element 8 - Revision Record

The Cuesta College SSMP Element 8 – System Evaluation and Capacity Assurance Plan has undergone the following revisions:

Revision No.	Revision Date	Description of Revisions	Revision Completed By	Revision Approved By
0	June 2012	Formally Adopt SSMP.	Wallace Group	Board of Trustees
1	March 2016	Revisions based on findings of biannual audit.	Wallace Group	Terry Reece
2	May 2018	Revisions including findings of recent sewer line analysis.	Wallace Group	Terry Reece
3	November 2021	Revisions based on findings of biannual audit.	Wallace Group	Jake Parsons & Brian McAlister
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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.

8.1 Regulatory Requirements

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

- 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. An assessment of CCTV data and associated rehabilitation and maintenance is located in **Appendix E**. 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 E** when complete. Staff will assess the need for funding efforts based on the results of these investigations and final analysis.

Element 9 - Revision Record

The Cuesta College SSMP Element 9 – Monitoring, Measurement and Program Modifications has undergone the following revisions:

Revision No.	Revision Description of Revisions		Revision Completed By	Revision Approved By	
0	June 2012	Formally Adopt SSMP.	Wallace Group	Board of Trustees	
1 7 10	March 2016	Revisions based on findings of biannual audit.	Wallace Group	Terry Reece	
2	May 2018	Revisions based on development of annual reporting template, updates to SSO history and monitoring schedules.	Wallace Group	Terry Reece	
3	November 2021	Revisions based on findings of biannual audit.	Wallace Group	Jake Parsons & Brian McAlister	
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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 F** 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
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.
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
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.
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 Facilities Services, Planning and Capital Projects (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 F.

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

Element 11 – Communication Program

Audit Report.

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 Districts 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 May 2021 are illustrated in Table 9-2 in **Appendix F**. 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). District 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 - Revision Record

The Cuesta College SSMP Element 10 – SSMP Audits has undergone the following revisions:

Revision No.	Revision Date	Description of Revisions	Revision Completed By	Revision Approved By
0	June 2012	Formally Adopt SSMP.	Wallace Group	Board of Trustees
1	March 2016	Revisions based on findings of biannual audit.	Wallace Group	Terry Reece
2	May 2018	Update with 2017 Audit findings.	Wallace Group	Terry Reece
3	November 2021	Revisions based on findings of biannual audit.	Wallace Group	Jake Parsons & Brian McAlister

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 G** which shall contain the following documents:

- SSMP Audit Data and Records Request
- 2021 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 G**.
- 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. May 2, 2014	July 14, 2015
2. May 2, 2017*	April 14, 2017
3. May 2, 2019*	May 2019
4. May 2, 2021*	March 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 March, 2021, is included in **Appendix G**.

Element 11 - Revision Record

The Cuesta College SSMP Element 11 – Communication Program has undergone the

following revisions:

Revision No.	Revision Date	Description of Revisions	Revision Completed By	Revision Approved By
0	June 2012	Formally Adopt SSMP.	Wallace Group	Board of Trustees
1	March 2016	Revisions based on findings of biannual audit.	Wallace Group	Terry Reece
2	May 2, 2018	Updated to include examples of outreach materials	Wallace Group	Terry Reece
3	November 2021	Revisions based on findings of biannual audit.	Wallace Group	Jake Parsons & Brian McAlister

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 H** which shall contain the following documents:

- o Flyers Public Outreach
- o 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 Planned for Implementation	
			2021	2022
District Website	Year-round	All	Х	Х
Public Flyers	Annually/Ongoing	All	x	х
Board of Trustee Meetings	As Needed	All	Х	Х

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.

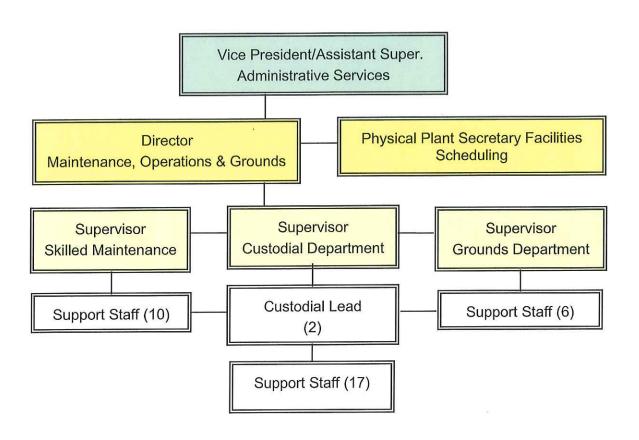
Board of Trustee Meetings

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

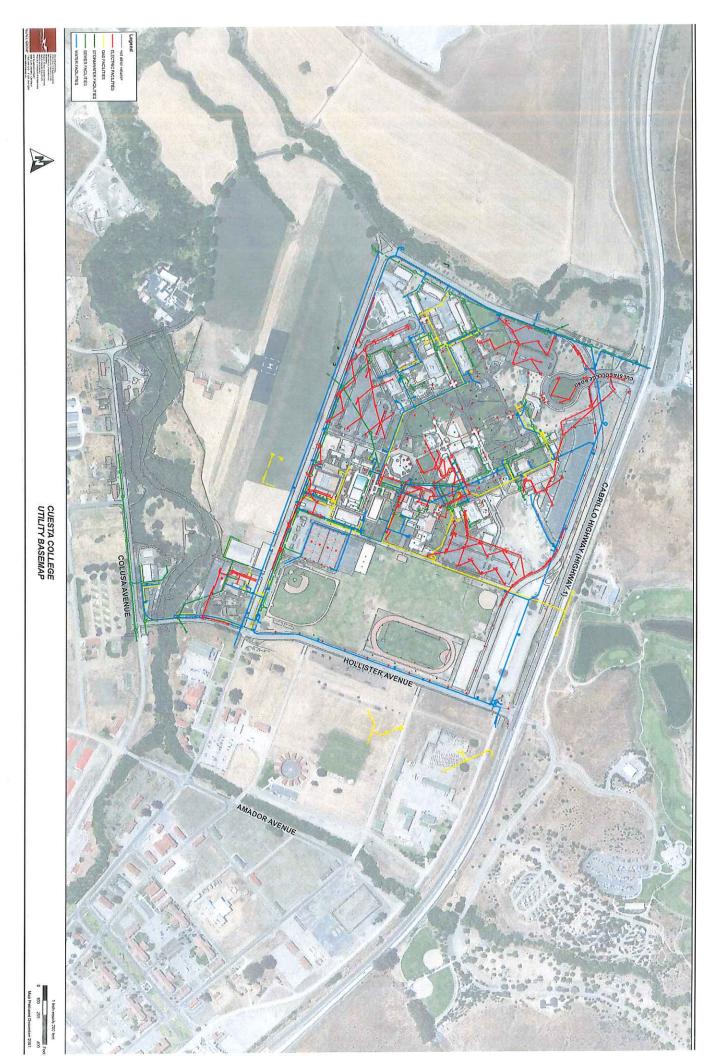
There are no agencies that meet the criteria of Satellite Agencies contributing to the District sewer system.

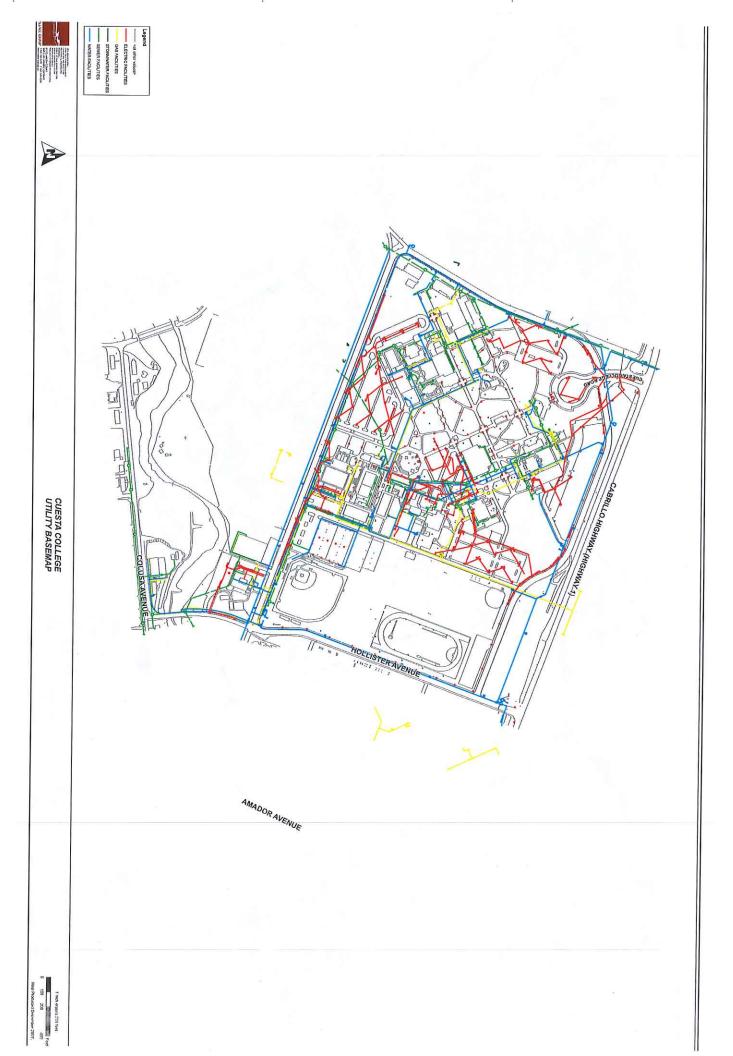
Appendix A – Facilities Organization Chart



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 2021-2022.pdf.







Cuesta College Map Revision History

		REV
		DATE
		DESCRIPTION OF CHANGE
		CHANGE BY
		APPROVAL
		COMMENTS



Cuesta College Map Revision History

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REV	DATE	DESCRIPTION OF CHANGE	CHANGE BY	APPROVAL	COMMENTS
			!		

Cherr	Sower Line Cleaning and Routine Manhole Inspection Log	ing and R	outine Mar	nhole Insp	ection Log	
Date: YYYY/ MIM/ DD	Sewer Line Size & Material	Location	Manhole # Start/End	Footage	Observed Sewer Line Conditions	Manhole Observations: Flow/Debris/Surcharge/Damage/Etc



Sewer Line Cleaning and Routine Manhole Inspection Log Date: Sewer Line Size | Location | Manhole | France | Properties | Location | Location

			MIM/	
N			& Material	* P. B B
			# Start/End	
			Start/End	(
			Flow/Debris/Surcharge/Damage/Etc	IVIdIIIOIE COSPIVATIONS:

Sewer Line Cleaning and Routine Manhole Inspection Log



				Date: YYYY/ MM/ DD
				Sewer Line Size & Material
				Location
 .v.m.,v	4306	***		Manhole # Start/End
				Footage
				Observed Sewer Line Conditions
				Manhole Observations: Flow/Debris/Surcharge/Damage/Etc

Sewer Line Cleaning and Routine Manhole Inspection Log

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					Location
r im or		 		Start/End	Manhole #
					Footage
					Observed Sewer Line Conditions
				riuw/ Peni is/ surcharge/ pamage/ etc	Manhole Observations:



Cuesta Trunk Line Manhole Observation and Inspection Report

MH No	Date:	Time:	Inspector:		
Elevation:	Depth To Invert:		Cleanliness:		
Type of Construction	•	Street Refe	rence:		
				approximation	Cover
Α		Frame Riser Rings -			Rim
Channels		Maci Tunga "			Cone
					Barrel
В	c				
		Shelf			Invert
				Management	
D	Ţ				0
Defects Observed: (c	over frame grout :	riser rings, st	ens, shelf, pipes, ch	annels, etc	.)
	over, name, great,			•	
4.					
5.					
6					
7					
8.					
	(Use Reverse Side	For Additional	Defects To Be Noted)		
Pipe Size Len	From MH gth to MH#	# Est. <u>Flow</u>	Type <u>of Flow</u>	Depth of of Flow	Velocity of Flow
A					
В					
c					
D					



Cuesta Trunk Line Manhole Observation and Inspection Report

MH Initial Inspection Circle Description of Each Asset A. Location	Structural Inspection Circle Description of Each Asset A. Rungs	Hydraulic Inspection Circle Description of Each Asset A. Inflow Indications
1. Road	1. Serviceable	1. Stains on Rungs
2. Gutter	2. Unsafe	2. Stains on Bench
3. Alley	3. Missing	ar otamo on Bonon
4. Easement	4. Corroded	B. Surcharge Indications
5. Other		on onargo maioations
B. Cover	B. Cone	 Debris on Shelf Debris on Rungs
	1. Serviceable	= Dobito off (dingo
1. Serviceable	2. Broken	C. Clarity of Flow
2. Damaged	3. Corroded	5. 5.m., 9, 7, 1011
3. Displaced	4. Misaligned	1. Turbid/Cloudy
4. Missing	5. Leaking/Bad Joints	2, Clear
5. Loose	0	
6. Sealed	C. Riser	D. Flow Type
C. Ring/Frame	1. Serviceable	1. Steady
3	2. Broken	2. Pulsing
1. Serviceable	3. Corroded	3. Turbulent
2. Loose	4. Misaligned	4. Surcharging
3. Displaced	5. Leaking/Bad Joints	5. Sluggish
4. Missing Grout	or Loaking/Data dointo	J. Sluggisti
5. Needs Raising	D. Shelf	E. Flow Depth Compared
6. Needs Lowering	2. 5.10.1	to Adjacent MHs
3	1. Serviceable	to Adjacent Wills
D. Manhole Material	2. Broken	1. Same
	3. Dirty	2. Lower
1. Cast in Place	4. Misaligned	3. Higher
2. Pre-Cast	5. Bad Base Joints	o. riigitei
		F. Approximate Flow
E. Manhole Cover	E. Channel	Depth
1. 24-inch	1. Serviceable	1 inches
2. 30-inch	2. Obstructed	2. TimeAM/PM
	3. Corroded	Z. TITIO A(V)/F(V)
F. Manhole Size	4. Bad Pipe Joint	
	5. Silt/Dirt	
1. 4-Foot	6. Poor Condition	

6. Poor Condition

2. 5-Foot



Cuesta Trunk Line Manhole Observation	and inspection Report
Observation Summary (Inspector):	
Recommendations (Inspector):	
Accommondations (mapostor).	
and the second s	
	AND
Inspector's Signature:	
Date:	
	•
Recommendations (Engineering Staff):	
	- 100
	and the state of t



Critical Parts and Equipment List

Parts and Equipment:

Rigid - K1500 Cable System

Portable Sewer Line Jetter: 200 ft line, nozzle kit, leader cables and cutting knives (2", 3" & 4")

Sewer Spill Response Trailer

Sewer Service Truck

Portable Snake and Camera

Sandbags and Waddles

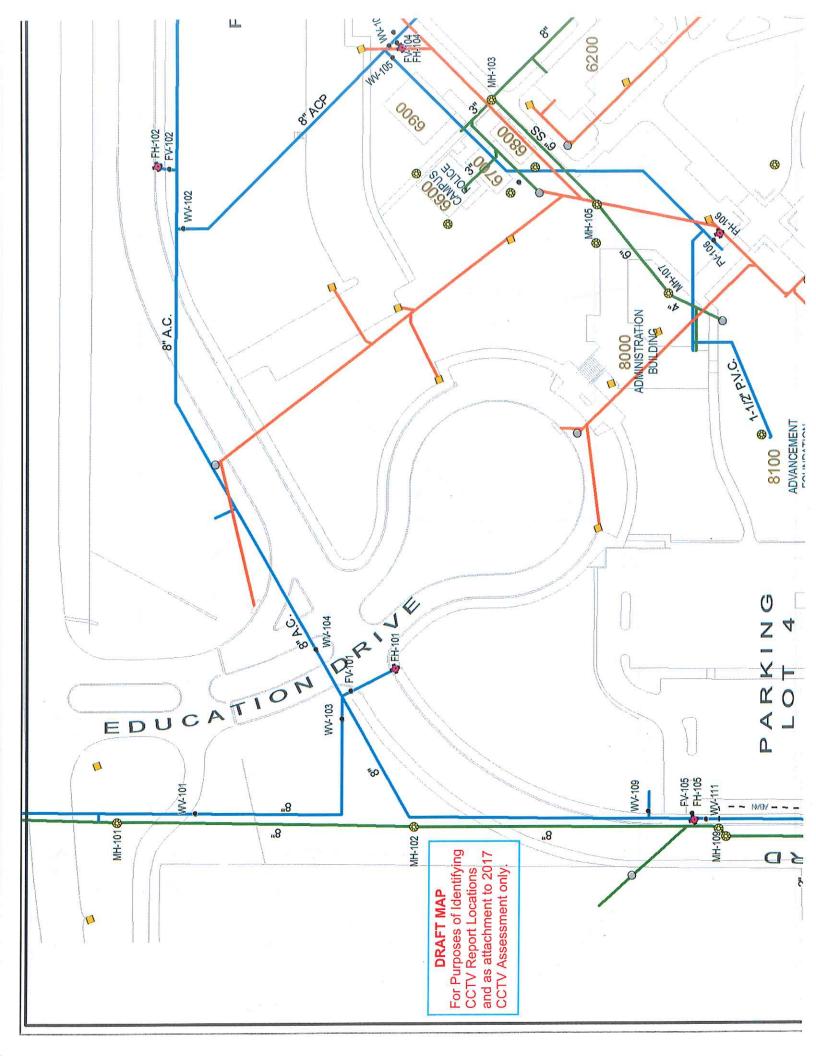
Emergency Excavation Contractors:

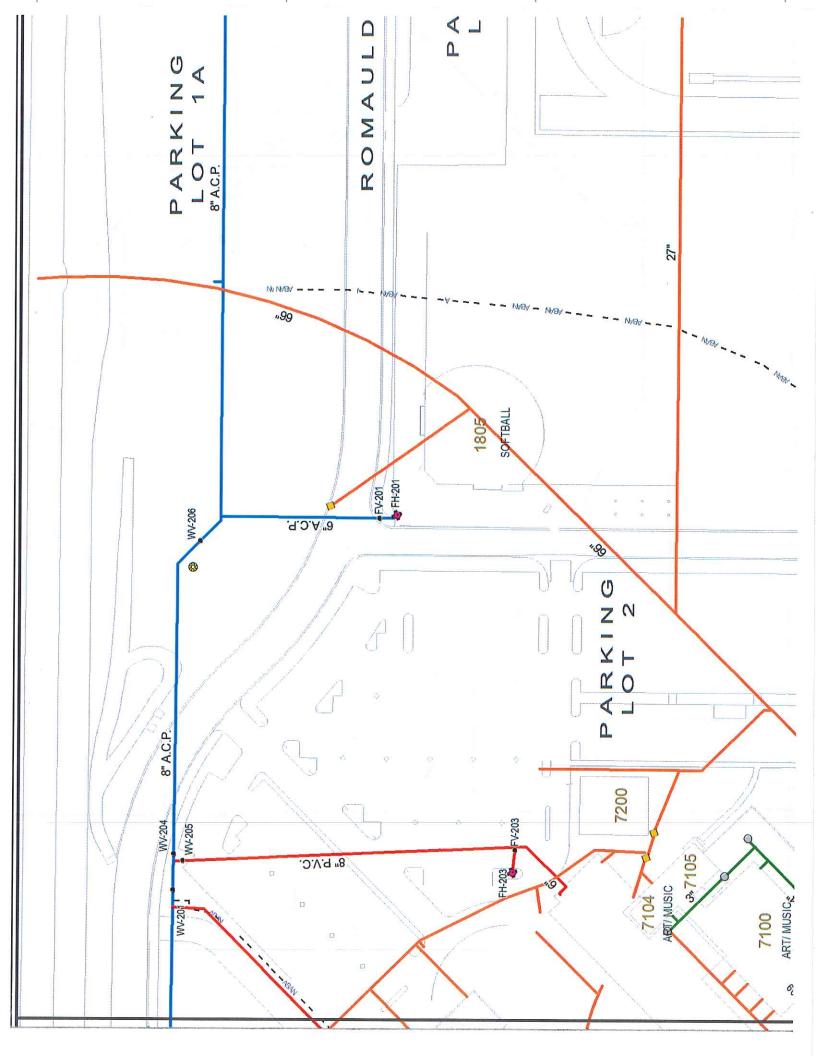
- * Rick Elisarras Excavation, Atascadero CA (805) 466-0659
- * Fluid Resource Management, Arroyo Grande CA (805) 597-7100

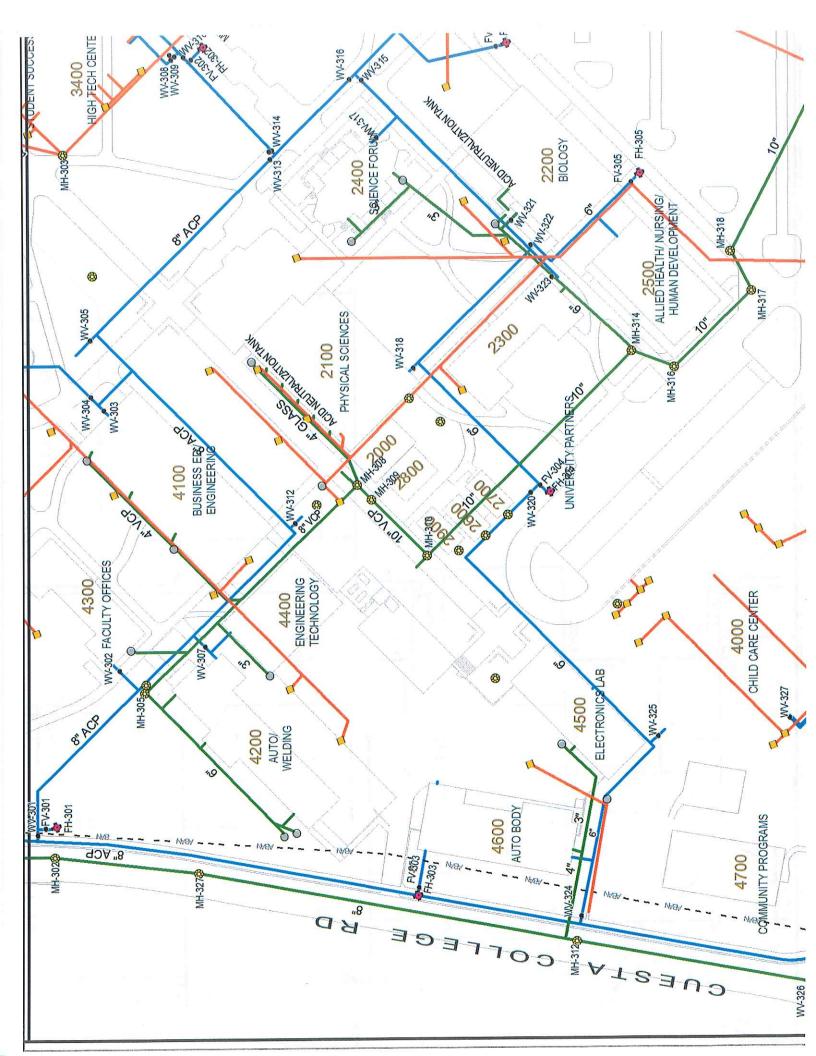
CUESTA COLLEGE: 2017 CCTV RESULTS

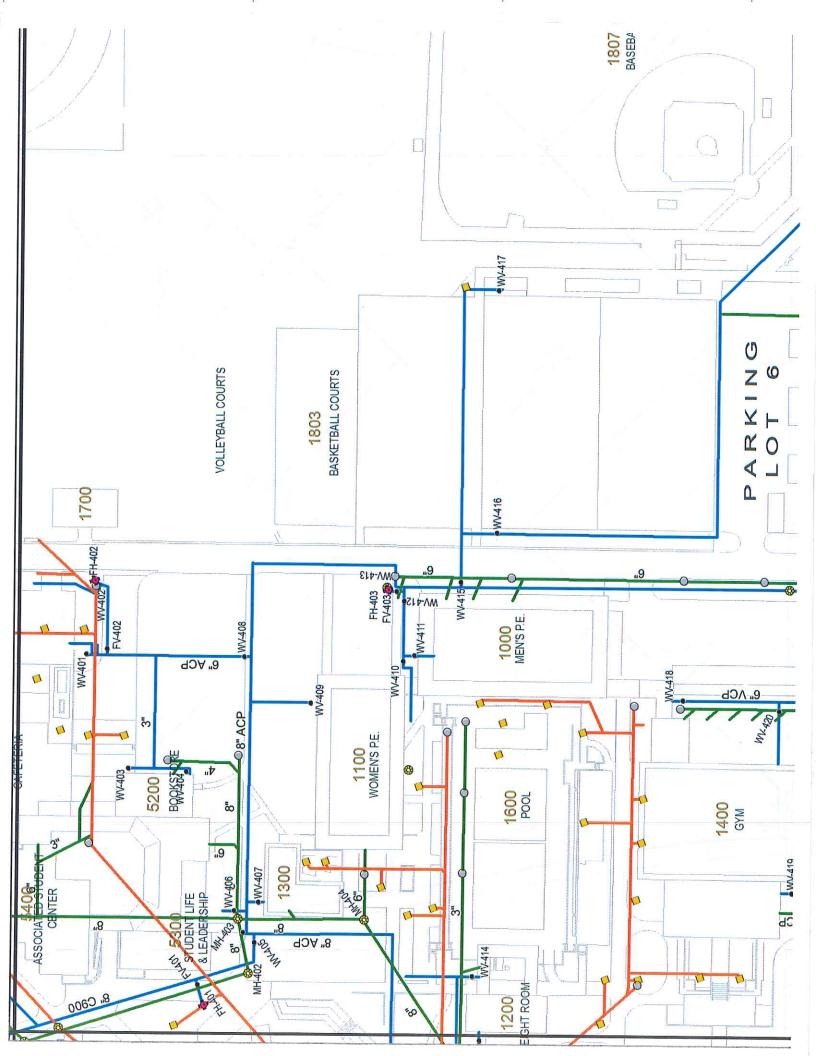
Recomi	Normal N	Normal N	Normal N	Hol	Normal N	Hot Sp	Monitor 1 point rep: Missing Re	(Is Hot Spot	U)	Hot Sp	Normal N	Normal N	Normal	Normal	Normal N	T. Hot Sp	Potential poor drain
Summary of CCTV Findings	N/A 4" line	N/A	No Video	Significant Roots at 67 ft: Unable to complete video past roots.	Concrete in line ("Oft")	Significant Roots @ 0 ft could not proceed.	Broken pipe w/ root intrusion @ 143.6 ft	Heavy Roots at 67.9 ft. Concrete in line 260.8 ft (Is this actually MH #4 to #3?) See session 5 comments.	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.	Tap w/ Root Intrusion (moderate) @ 58.4 ft.	N/A	Unable to inspect (due to turn in pipe) @ 0 ft.	N/A	N/A	N/A	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).	Cracks w/ roots @ 261.4 ft
Pipe Length	0	0	0	68.1	0	0	151.7	262.5	197.2	105.7	101.7	0	154.4	206.9	64.9	128.5	2 V9E
Manhole Numbers	C/O To 107	107 To 105	105 To 103	103 To 108	108 To 103	104 To 108	108 To 113	103 To 108	104 To 108	113 To 114	113 To 114	114 To 401	114 To 401	401 To 402	402 To 403	403 To 404	404 To 343
Location	BLDG 8000	BLDG 8000	BLDG 6800	BLDG 6800	BLDG 6800	BLDG 6800	BLDG 6300	BLDG 6800	BLDG 6100	BLDG 3100	BLDG 3100	BLDG 3100	BLDG 3100	BLDG 3100	BLDG 1300	BLDG 1300	TOTONINGVO
Date	7/24/2017 9:23	7/28/2017 8:30	7/28/2017 8:44	7/28/2017 8:50	7/28/2017 9:19	7/28/2017 9:22	7/28/2017 9:27	8/1/2017 9:37	8/1/2017 10:05	8/1/2017 10:25	8/1/2017 10:32	8/1/2017 10:41	8/2/2017 9:11	8/2/2017 9:20	8/2/2017 9:34	8/2/2017 9:42	00.014 40.00
Report	Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	Session 7	Session 8	Session 9	Session 10	Session 11	Session 12	Session 13	Session 14	Session 15	Session 16	Section 17

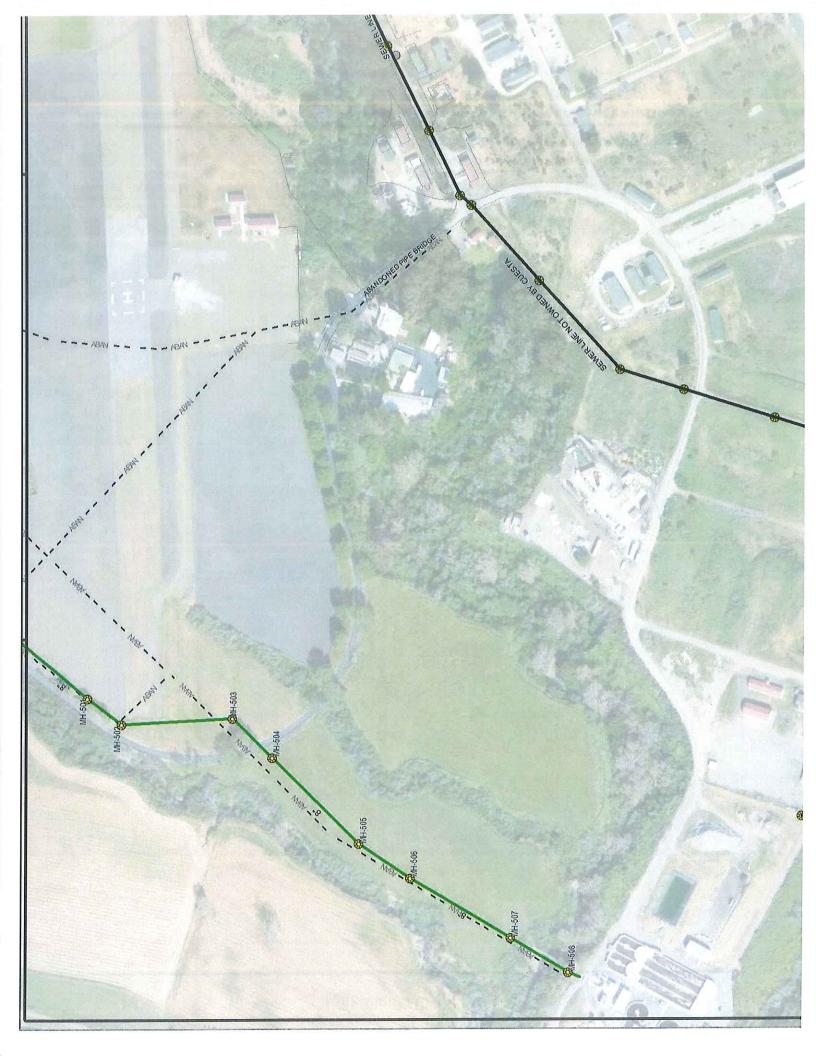
Hot Spo	S. S.	Outreach	Foam / Ma	Hot Sp	See Ses	' [L.	N I a	Hot Spot	Hot Sp	Hot Spe
Light roots in joint w/ heavy debris @ 24.1 ft, Unable to pass due to heavy debris (pipe ~1/3 full).	Tap (capped) w/ light roots. Light/moderate roots in joints @ 20.1 ft, 25.6 ft, 47.8 ft, 53.8 ft, 62.8 ft. Heavy roots @ 65.9 ft (unable to pass).	Unable to pass due to buildup of rags @ 118.2 ft.	Light roots in joint @ 6.6 ft, moderate cracks in pipe @ 32.7 ft,	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.	Moderate roots @ 12.4ft, 18.7 ft, 22.2ft, 25.2 ft, 58.4 ft. Heavy roots @ 76 6 unable to pass	Moderate Roots in Tap @ 253.6 ft,	Unable to pass due to turn @ 6 ft.	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.	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.	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
30.6	65.9	118.2	304.3	158.3	76.6	309.9	Ç	343.9	252.6	336.9
412 To 411	410 To 409	410 To 409	409 To 408	320 To 319	320 To 319	305 To 308	305 to 308 (Map does not give enough detail for exact location)	412 To 411	410 To 409	408 To 320
BASEBALL PARKING LOT	BASEBALL PARKING LOT	BASEBALL PARKING LOT	BLDG 1400	LOT 5	LOT 5	NEW BLDG	NEW BLDG	LOT 6	LOT 6	LOT 5
8/9/2017 9:20	8/9/2017 9:27	8/9/2017 9:37	8/9/2017 10:30	8/9/2017 10:56	8/9/2017 11:16	8/10/2017 11:44	8/10/2017 12:19	8/11/2017 9:36	8/14/2017 8:30	8/14/2017 8:56
Session 20	Session 21	Session 22	Session 23	Session 24	Session 25	Session 26	Session 27	Session 28	Session 29	Session 30











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

PROFESSIONAL DE DE LA SOLUTION DE LA

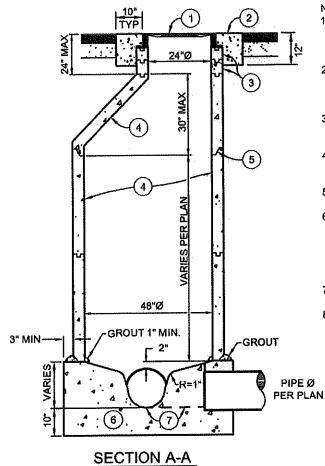
No. C 55,070

Recommended for Approval:

Glenn D. Marshall, PE

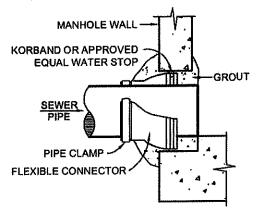
Development Services Engineer

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



NOTES:

- 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".
- 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.
- 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.
- 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.

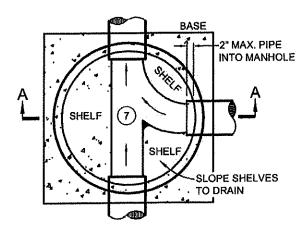


TYPICAL CONNECTION DETAIL



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

LID DETAIL



PLAN VIEW

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION

SEWER MANHOLE

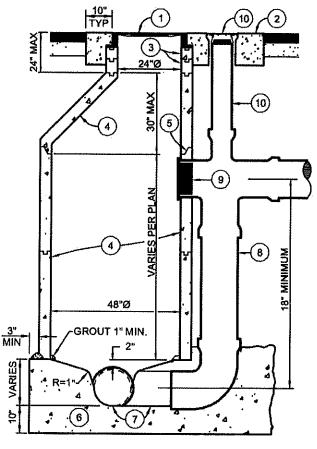
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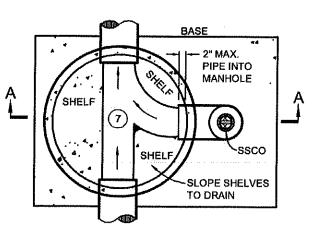
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Sheet No: 1 OF

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



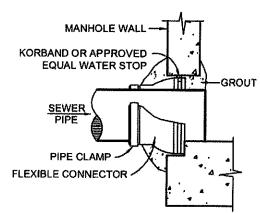




PLAN VIEW

NOTES:

- MANHOLE COVER AND FRAME SHALL HAVE A MINIMUM 24" Ø
 OPENING AND CONFORM TO HS-20 TRAFFIC LOADING. LID SHALL
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- 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.
- PRECAST SHAFT(S) AND ECCENTRIC CONE SHALL MEET ASTM C-478 61T FOR CLASS 2 REINFORCED CONCRETE PIPE, OR AS APPROVED BY THE DEPARTMENT.
- 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.
- 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.



TYPICAL CONNECTION DETAIL



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

LID DETAIL

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION

SEWER DROP MANHOLE

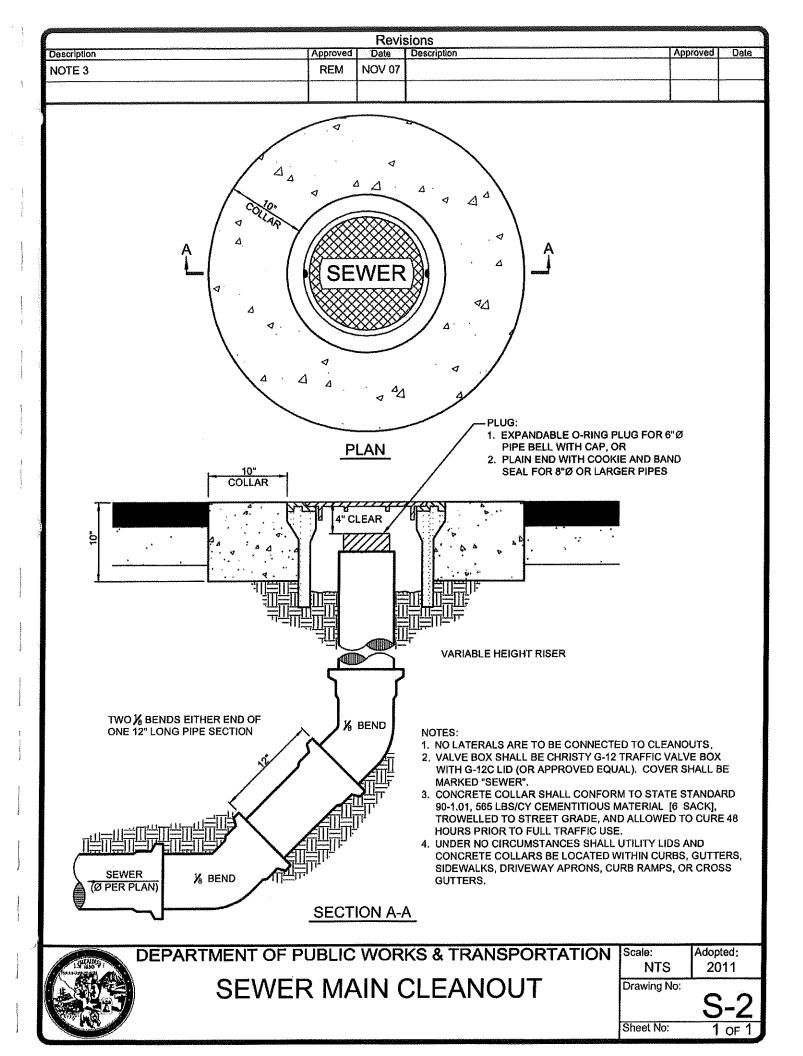
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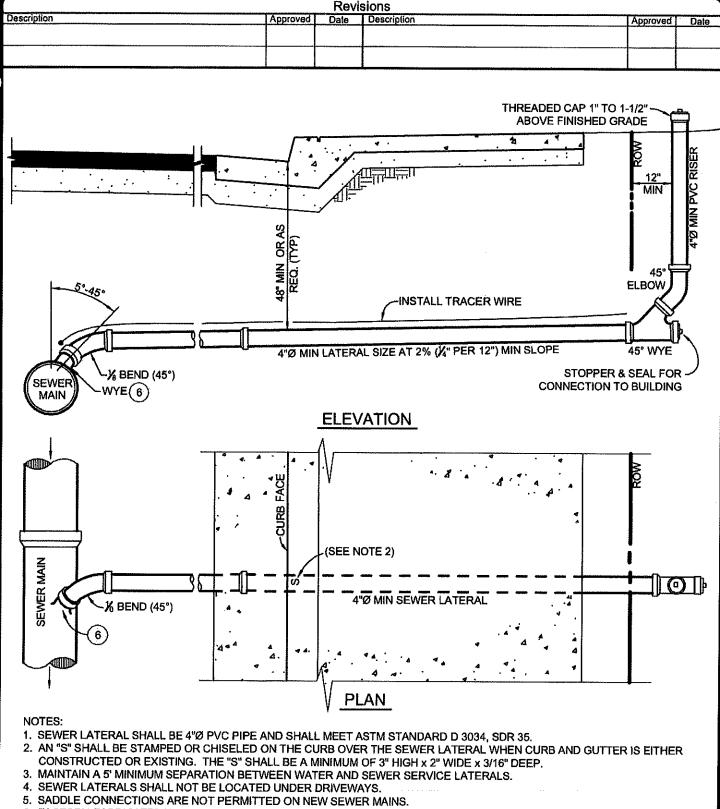
Drawing No:

S-1a

Sheet No:

1 of 1





- 6. 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.
- 7. UNDER NO CIRCUMSTANCES SHALL UTILITY LIDS AND CONCRETE COLLARS BE LOCATED WITHIN CURBS, GUTTERS, SIDEWALKS, DRIVEWAY APRONS, CURB RAMPS, OR CROSS GUITERS.



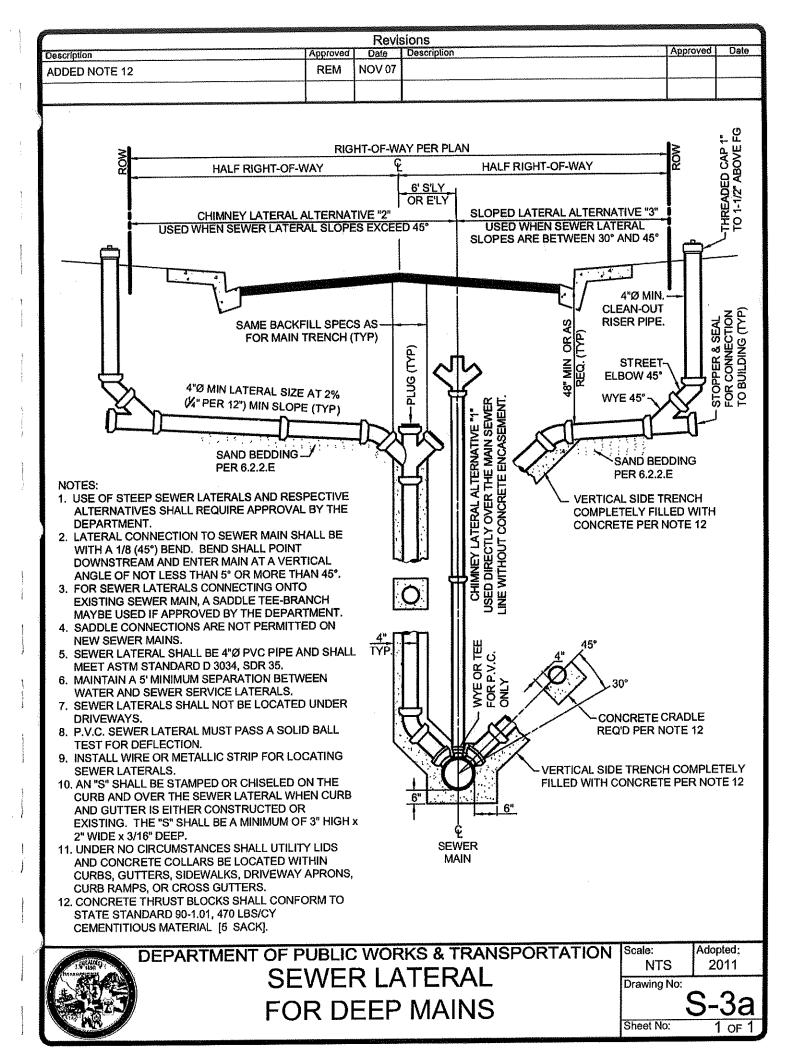
DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION

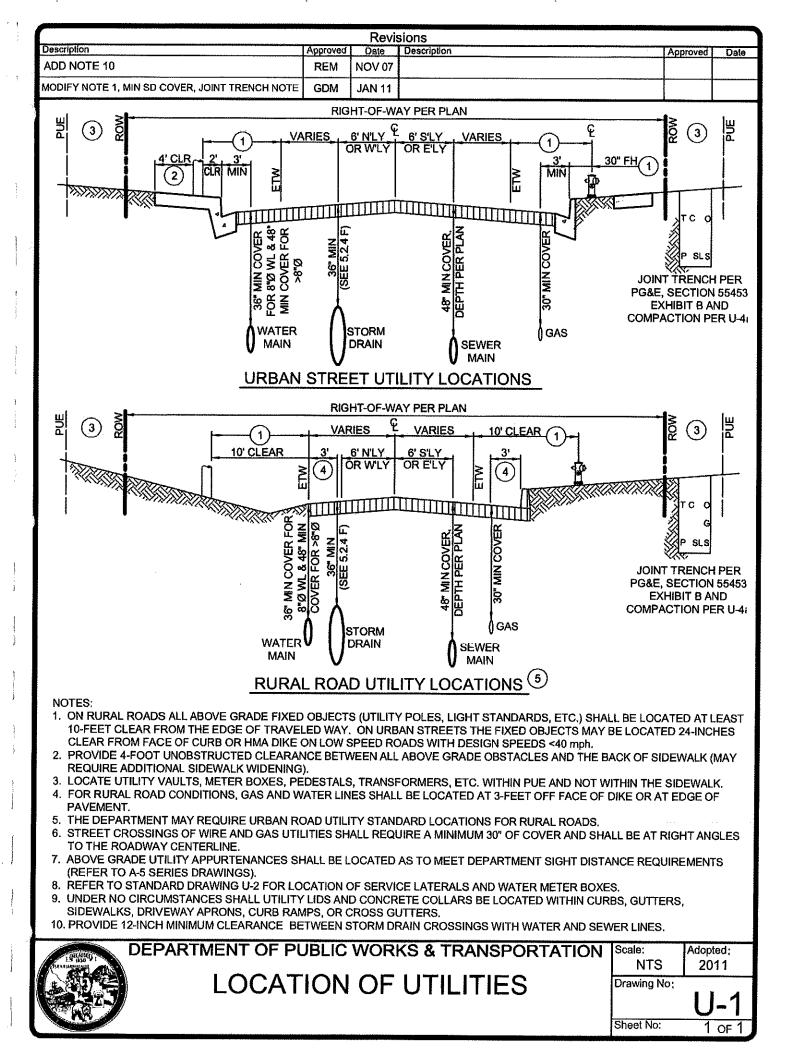
SEWER LATERAL

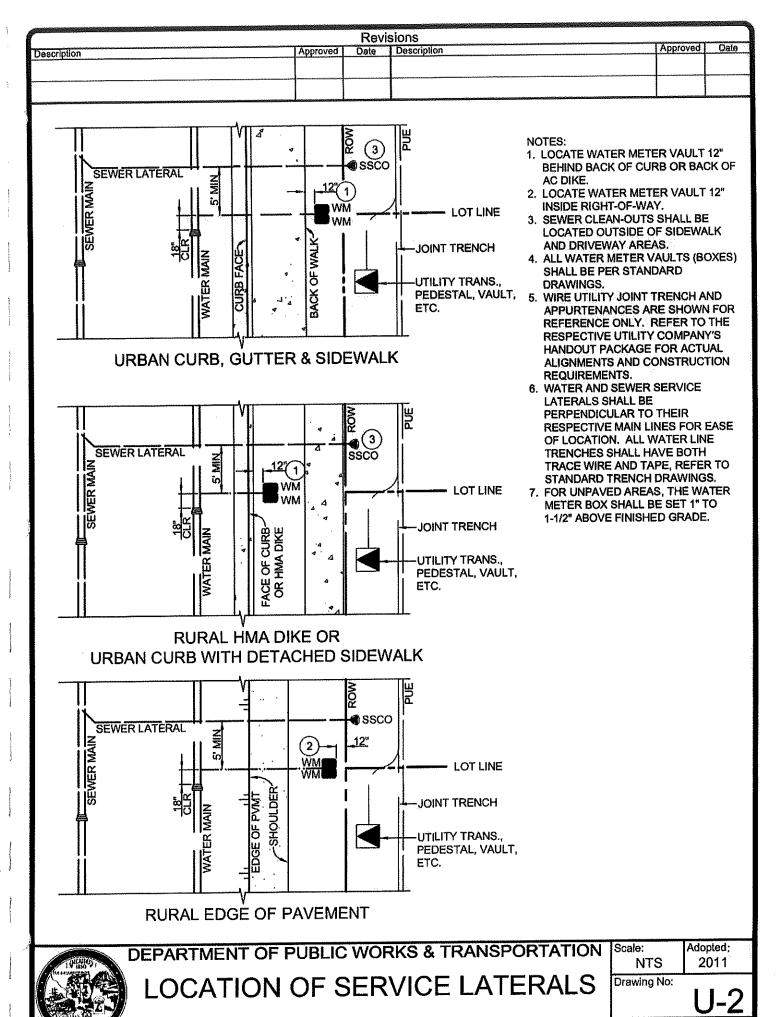
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NOTES:

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.
- 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.

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DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION

UTILITY SEPARATION CRITERIA

Scale:

Adopted: 2011

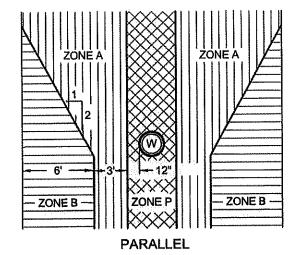
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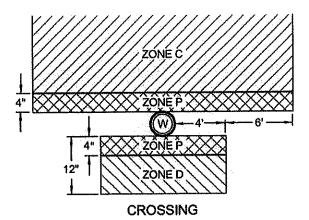
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Sheet No:

1 of 3

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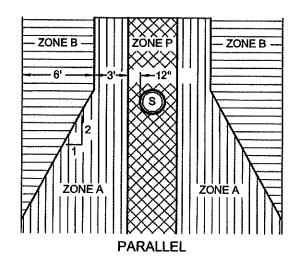
ZONE	SPECIAL CONSTRUCTION REQUIRED FOR SEWER:
Α	SEWER LINES PARALLEL TO WATER MAINS SHALL NOT BE PERMITTED IN THIS ZONE WITHOUT APPROVAL FROM THE RESPONSIBLE HEALTH AGENCY AND WATER SUPPLIER.
В	A SEWER LINE PLACED <u>PARALLEL</u> TO A WATER LINE SHALL BE CONSTRUCTED OF: 1. CLASS 4000, TYPE II, ASBESTOS-CEMENT 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).
С	A SEWER LINE CROSSING 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 CROSSING 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.
Р	ZONE P IS A PROHIBITED ZONE, SECTION 64630(E)(2) CALIFORNIA ADMINISTRATIVE CODE, TITLE 22.

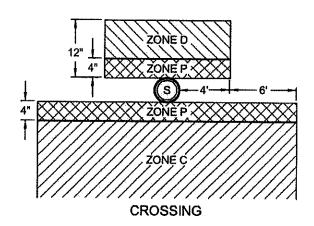
CASE 1: NEW SEWER MAIN

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



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ZONE	SPECIAL CONSTRUCTION REQUIRED FOR WATER:
A	NO WATER MAINS PARALLEL TO SEWERS SHALL BE CONSTRUCTED WITHOUT APPROVAL FROM THE HEALTH AGENCY.
В	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.
O	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.
Р	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

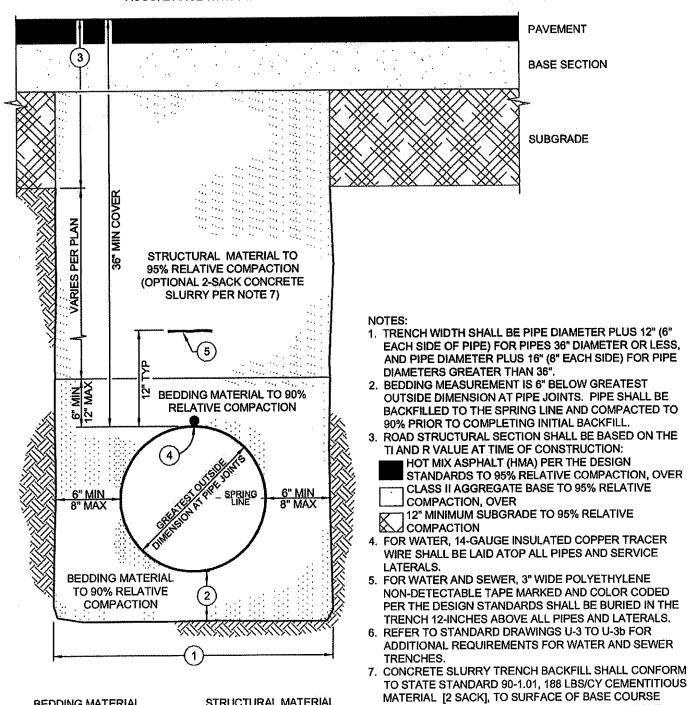
Scale: Adopted: 2011

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.



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

DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION

TRENCH DETAIL PAVED SURFACES

Adopted: Scale: 2011 NTS Drawing No:

SECTION. DO NOT PLACE AGGREGATE BASE ABOVE

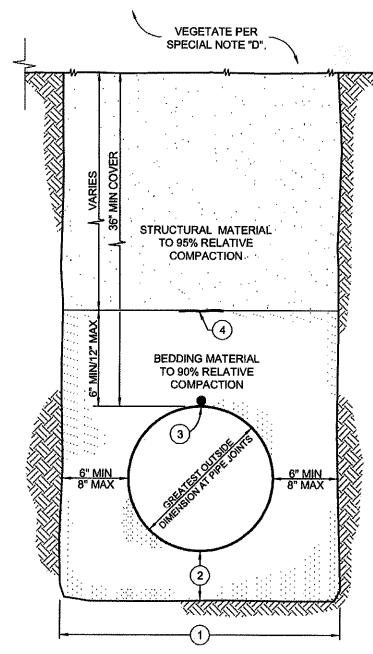
SLURRY BACKFILL.

Sheet No:

1 of



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:

- 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.
- 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.
- 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		
ŞI	EVE 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

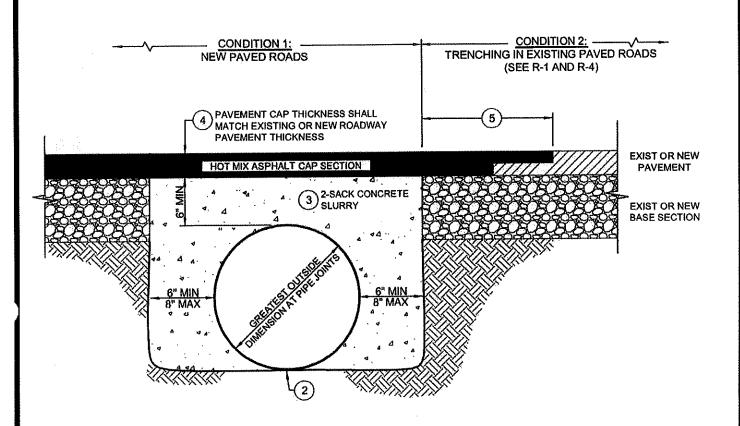
Scale: NTS Adopted: 2011

Drawing No:

<u>U-4a</u>

Sheet No: 1 Oi

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	80 VON					



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.
- 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: 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. <u>Number of Persons Served</u>. 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. <u>Minimum Velocity</u>. 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. <u>Maximum Velocity</u>. Unless special provisions for erosion protection have been provided, and approved by the Department, design velocities for sanitary sewers shall not exceed 10 fps <u>at peak flow</u>. 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. <u>General Location</u>. 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. <u>Sewer Lines Within Easements</u>. 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. <u>Alignment</u>. 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. <u>Depth</u>. 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. <u>Size</u>. 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. <u>Pipe</u>. 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:
 - <u>Ductile Iron Pipe</u>. 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.
 - 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. <u>Manholes</u>. 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. <u>Drop Manholes</u>. 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. <u>Stub Lines</u>. 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. <u>Special Facilities</u>. 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. <u>Lift Stations</u>. 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. <u>Lift Station and Force Main</u>. 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. <u>Force Mains</u>. 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. <u>Lines and Grades</u>. 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. <u>Excavation</u>. Unless otherwise specified, the excavation for sewer mains shall be completed in the same manner as described for water mains in Chapter 6.
- D. <u>Laying Pipe</u>. 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. <u>Pipe to be Placed by Boring or Jacking</u>. 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:

- 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. <u>Manholes</u>. 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. <u>House Service Laterals</u>. 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.
 - 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. <u>Cleaning</u>. 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. <u>Hydrostatic Test Procedure</u>. 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. <u>Air Test Procedure</u>. 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.

Wastewater Disposal: 7-8

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. <u>Deflection Test</u>. 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. <u>Timing of Pavement Replacement</u>. 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. <u>Pavement Replacement Requirements</u>. 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. <u>Improvements Required</u>. 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. <u>Plan Requirements</u>. 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. <u>Underground Installation Required</u>. 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. <u>Sawcut and Pavement Replacement</u>. 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. <u>Service Extensions Required</u>. All utilities shall be installed with service laterals to serve all new lots being created in any subdivision project.
- F. <u>Acceptance by Utility</u>. 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.

Utilities: 8-2

Appendix	D -	FOG	Control	Program
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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.



Date of Service:

Cuesta College Fats, Oils, and Grease Control Program

FOG Removal Contractor:

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.

Location:			Type of Grease Control Device (Circle) Trap Interceptor	:	
Trap/Interceptor Capacity:	Gal	lons	Pumping Schedule:		
Grease Interceptor			Grease Trap	er også e	1.15
**Please inspect grease con	trol de	evice a	and check appropriate response provided.		
	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					
	-l	·	-	I	<u> </u>
**Provide information for second (clarifier) interceptor below.	stage o	of	**Provide information for second (clarifier) s grease trap below.	stage of	ſ
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		
			Signature:		
Date:					

) Inspection R	esults and Ana	lysis (Place	eholder)		
				¥.	

ppendix F – Monit SSO Indicator Trackir			
		9	

Cuesta Community College District Sewer System Statistical Data

	36 FF06 0F06 ASESIBAL	2040	2044		2042	25.50	2600	2046	7,700	2040	2040	0606	1000	20.22	12 2012 2014 2014 2015 2014 2014 2014 2014 2014 2014 2014 2014
		202		7107	200	40.02	CIOZ	0107	7 07	0 0	2	2020	3	7707	Otal
Z	No. of SSOs	_	0	0	0	0	0	0	0	0	0	0	7-		7
Locatio	Locations with Multiple SSOs	0	0	0	0	0	0	0	0	0	0	0	0		0
	Volume	1000	0	0	0	0	0	0	0	0	0	0	15		1015
Volume	Volume Recovered	0	0	0	0	0	0	0	0	0	0	0	0		0
(gal)	Volume Reached Surface Water	1000	0	0	0	0	0	0	0	0	0	0	0		1000
	Debris	0	0	0	0	0	0	0	0	0	0	0	0		0
	Debris – General	0	0	0	0	0	0	0	0	0	0	0	0		0
	Debris – Rags	0	0	0	0	0	0	0	0	0	0	0	1		
	Flow Exceeded Capacity	0	0	0	0	0	0	0	0	0	0	0	0		0
	FOG	0	0	0	0	0	0	0	0	0	0	0	0		0
	Operator Error	0	0	0	0	0	0	0	0	0	0	0	0		0
Causes	Other	0	0	0	0	0	0	0	0	0	0	0	0		0
	Pipe Structural Problem/Failure	0	0	0	0	0	0	0	0	0	0	0	0		0
	Pump Station Failure	0	0	0	0	0	0	0	0	0	0	0	0		0
	Rainfall Exceeded Design	0	0	0	0	0	0	0	0	0	0	0	0		0
	Root Intrusion	0	0	0	0	0	0	0	0	0	0	0	0		0
	Vandalism	0	0	0	0	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 November 10, 2021.

Cuesta Community College District Sewer System Statistical Data

SSO Measurements 2010 through 2021

Table shows comparison of Cuesta Spill history compared to other State Schools.

		Spi	oill Rate: Numbe	ar of Spills per	100 miles of se	ill Rate: Number of Spills per 100 miles of sewer pipe per Year		, manual (1)	
		Category 1 Spil	8		Category 2 Spills	lls		Category 3 Spills	
	Mainlines	Laterals	Other	Mainlines	Laterals	Other	Mainlines	aterals	Other
Cuesta College	5.84	0.0	0.0	0.0	0.0	0.0	28.5	0.0	00
State School Averages	4.46	22.62	1.2	2.35	23,31	1.08	8.35	46.4	5.74
		Ne	et Volume of Sp	ills: Net Volun	ne in Gallons pe	tt Volume of Spills: Net Volume in Gallons per Capita per Year			
		Category 1 Spil			Category 2 Spills	S S		Category 3 Spills	
	Mainlines	Laterals	Other	Mainlines	Laterals	Other	Mainlines	l aferals	Other
Cuesta College	3.47	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
State School Averages	82.44	3.06	.55	20.43	20.25	21.27	2.66	1.88	0.56

Category 1: Spill contacting surface water. Category 2: 1000 gallons or more w/ no surface water contact. Category 3: All other Spills.

Performance Summary

In summary, the Cuesta College Sewer Collection and Conveyance System has maintained a good performance record when compared to State School facilities over the course of the past ten (10) years for Category 2 and Category 3 SSOs due to proactive operation and maintenance of the sewer system. The District is above the State School average for spill rates which is due to the SSO that occurred in 2010 which resulted in 1,000 gallons of wastewater reaching a surface water body.

Appendix G – SSMP Audit

- 1) Data and Records Request
- 2) SSMP Audit Report

			\mathbf{SSM}	P DATA	& REC	ORDS	SSMP DATA & RECORDS REQUEST
¥.	SM	A. SSMP ADMINISTRATIVE	YES	LOCATED WHERE?	ON	N/A	
A1	તું	Has your agency enrolled in the State-wide GWDR and designated the responsible or authorized representative (LRO)?					
Makailan ann an ann an ann an ann an ann an an	Ď.	Provide a copy of the SSMP Certification in CIWQS.	***************************************				Topological Control of the Control o
	ပ်	Provide a copy of the CIWQS print-out for all LROs and Data Submitters.					
	٦	Provide a copy of your Operational Report from CIWQS.					
A2	ď.	Has your agency adopted a SSMP?					
	<u>,</u> c	Provide a copy of the SSMP.					
	ပံ	Provide a copy of the Meeting Minutes for the agency governing body's meeting during which the SSMP was adopted.					
A3	सं	Does your agency have a copy of the GWDRs available to agency staff? Where is it kept?					- Acceptance - Acc
B. GOALS	OAI	S	YES	LOCATED WHERE?	NO	N/A	

		\mathbf{SSMI}	P DATA &	E RECO	ORDS R	SSMP DATA & RECORDS REQUEST
c. org	C. ORGANIZATION	YES	LOCATED WHERE?	NO	N/A	
C1 a.	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 a. individual roles and responsibilities for implementation of the SSMP?					
ò.	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?					
þ.	Are names, titles, and telephone numbers provided in this chain of communication?					

1 a. agr. whi. d. c. c. f.			PUATA	z RECO	ORDS	SSMP DATA & RECORDS REQUEST
Pro G. C. b. b. f. f.		YES	LOCATIBLE WHERE?	NO	N/A	
b. Prohibit illicit discharges Require that sewers and cor constructed Ensure access for maintena d. Portions of the lateral owned Agency Limit the discharge of fats, that may cause blockages f. Enforce any violation of its s	Provide the sanitary sewer system use ordinances, service agreements, or other legally binding procedures or documents, which demonstrates the agency's legal authority:					
ပ် ဗုံ မ [ှ]		Printed				- Constitution of the Cons
جن ون و ن	Require that sewers and connections be properly designed and constructed					
ej çi	Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency					
f.	Limit the discharge of fats, oils, and grease and other debris that may cause blockages					
	sewer ordinances					
S. OF EINATIONS AND MAINTENANCE (O&M)	(CE (O&M)	YES	LOCATED WHERE?	NO	N/A	
E1 a. Provide the following documents:	:53					
An updated map of the agen storm drain system.	An updated map of the agency's sanitary sewer system and storm drain system.					

ā ,		SSMP DATA & RECORDS REQUEST	& RECC)RDS RE	QUEST	
φ	Documentation for scheduled and conducted activities, such as work orders and/or reports and invoices from contractors.				- market and a second a second and a second	
q.i	The O&M contract if the agency's collection system is operated and maintained by a contract operations firm.					
δû	The agency's Rehabilitation and Replacement Plan					
.ti	» Summary of the agency's CCTV program and schedule. Include samples of inspections and summary of findings.					
٠٢.	» List of current and planned projects					
	» Time schedule for planned projects					***
, K,	» Schedule for developing the funds needed for rehabilitation and replacement projects					
Ľ	Standard Operating Procedures for Sewer System Operations and Maintenance activities.	:.				
.B.	Training records for staff operations and maintenance activities and contractor operations and maintenance activities.		:	:		

		SSM	P DATA &	& REC	ORDS F	SSMP DATA & RECORDS REQUEST
E. OP	E. OPERATIONS AND MAINTENANCE (O&M) [CONTINUED]	YES	LOCATED WHERE?	ON	N/A	
ġ.	Equipment and replacement part inventories, including identification of critical replacement parts.	ii :				
ਠਾਂ	» 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).					
și.	» If critical replacement parts are not kept in stock, provide applicable mutual aid agreements.					
F. DE	DESIGN & PERFORMANCE STANDARDS	YES	LOCATED WHERE?	NO	N/A	
F1 a.	Provide the following documents:					
,q	. Design and construction standards and specifications for:					
ပ်	» the installation of new sanitary sewer systems					
ਾਹਂ	» pump stations and other appurtenances specific to the agency's collection and conveyance system		,,,,,			
φ	» the rehabilitation and repair of existing sanitary sewer systems			V 401/1		

8.11 <u>.</u>		SSMI	DATA 8	z RECC	RDS R	SSMP DATA & RECORDS REQUEST
ન	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. OVE	OVERFLOW EMERGENCY RESPONSE PLAN	YES	LOCATED WHERE?	NO	N/A	
G1 a.	a. Provide the agency's Overflow Emergency Response Plan			-		
þ.	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.					
ပ	A program to ensure an appropriate response to all overflows.					
ਾਂ	Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained.					
ம்	Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities.					
4 ;	Procedures to address spill volume estimation.					
d de la constanta de la consta	A program to ensure that all reasonable steps are taken to					

H. FOG						
લં	H. FOG CONTROL PROGRAM	YES	LOCATED WHERE?	NO	N/A	
	Provide the agency's Fats, Oils, and Grease (FOG) Control Program.					
Ģ	If applicable: justification for why the agency does not have a FOG Control Program, because one is not needed.			To the second se	THE STATE OF THE S	
ij	Evidence of the agency's public education outreach program that promotes proper disposal of FOG.					
Ġ.	List of acceptable FOG disposal facilities.					
ψ	Ordinance demonstrating the agency's legal authority to prohibit FOG discharges to the system and inspect FOG producing facilities.		·			
чi	Evidence of FOG Control Program inspection and enforcement activities.					
ь́о	Documentation of hot spots in the collection system, which are caused by FOG.					
I. SYSTE	1. SYSTEM EVALUATION AND CAPACITY ASSURANCE PLAN	YES	LOCATED WHERE?	NO	N/A	
11 a. P	Provide the agency's System Evaluation and Capacity Assurance Plan (SECAP).					

an a	SSMP DATA & RECORDS REQUEST	
ú	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.	
ਾਹਂ	Program for the evaluation of system hydraulic deficiencies.	
တ်	Evidence of design criteria utilized to address hydraulic deficiencies.	
વાં	Short- and long-term CIP schedule necessary to address hydraulic deficiencies. Sources of funding for these long and short term projects.	

		$\mathbf{S}\mathbf{S}\mathbf{M}$	P DATA &	E REC	ORDS R	SSMP DATA & RECORDS REQUEST
J. MO	J. MONITORING, MEASUREMENT & PROGRAM MODIFICATIONS	YES	LOCATED WHERE?	NO	N/A	
J1 a.	Provide the following documentation, which demonstrates the following:					
	Prioritization of appropriate SSMP activities.					
ပဲ	Efforts to monitor implementation and measure the effectiveness of the SSMP.					
ਾਹਂ	Assessment of the preventative maintenance program.					
ம்	Updates to program elements.					
фi	Identification of SSO trends.					

			SSMP	DATA &	& REC	ORDS R	SSMP DATA & RECORDS REQUEST
	bio	Evidence of mandatory information required by the Monitoring and Reporting Program, Order No. 2013-0058-EXEC, such as the CIWQS SSO supporting documentation.					
K.	$_{ m SSM}$	K. SSMP PROGRAM AUDITS	YES	LOCATED WHERE?	NO	N/A	
K1		a. Provide historical SSMP Program Audit Reports.				ı	
j	СОМ	L. COMMUNICATION PROGRAM	YES	LOCATED WHERE?	NO	N/A	
Ę		Provide the agency's Communication Program and evidence of its implementation.					



Cuesta College Sewer System Management Plan, Revision 2 – May 2018 Audit Report

May 2019

Prepared By:



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 2019 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	17
System Evaluation and Capacity Assurance Plan	19
Monitoring, Measurement, and Program Modifications	21
SSMP Audit	23
Communication Program	24
SSMP Audit: Records Reviewed	25



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 Community College District (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 2 dated May 2018.

1.0	[SSSWDR,	Section	D.13.i]:	Goals
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- 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 2, dated May 2018, 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 CaseySafety Compliance Coordinator Cuesta College
- Mary Rash
 Interim Safety Compliance Coordinator Cuesta College

The SSMP Audit was conducted in April 2019; the following table summarizes key dates and locations:

Table 2: Cuesta College SSMP, Revision 2 - May 2019 Audit Key Dates

Date	Location	Topic	Staff
March 2019	WG Office	Submitted Data and Records Request to City.	Bill Callahan, Kathy Casey
April 2019	Cuesta Facility Maintenance Office	SSMP Audit Kick Off, SSMP Data and Records Request reviewed and records gathered, begin drafting Audit Report.	Bill Callahan, Mary Rash
May 2019	Cuesta Facility Maintenance Office	SSMP Draft Audit Report Submitted for Review	Bill Callahan, Terry Reece, Mary Rash
May 2019	Cuesta Facility Maintenance Office	SSMP Audit Final Report	Terry Reece Certification of report.



CUESTA 2019 SSMP AUDIT RESULTS

The SSMP Audit resulted in a finding that the Cuesta College SSMP dated May 2018 is in full compliance with nine (9) out of eleven (11) subsections (elements) of SSSWDR Section D.13 and in substantial compliance in two (2) of the elements. Cuesta has been effective in implementation of the SSMP.

This is an improvement when compared to the 2017 SSMP Audit findings when Cuestas SSMP was found to be in full compliance with nine (9) out of eleven (11) subsections (elements) of SSSWDR Section D.13, partial or substantial compliance in two (2) of the elements. Cuestas effectiveness to implement the SSMP findings for the 2019 Audit was found to be substantially effective.

A summary of the results is presented in Table 3 below:

Table 3: Cuesta College SSMP Revision 2 - Audit Results 2019

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)]	Substantial Compliance	Cuesta has been effective in implementing this section; however, updates should be completed to keep relevant information regarding staff positions up to date.	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)]	In Compliance	Cuesta is a self-regulating entity that maintains the required legal authorities to manage discharges to the	N/A



SSSWDR Section D.13	SSMP Compliance with Required Subsection	Cuesta Effectiveness in the Implementation of SSMP Subsections	Schedule
Missell S		Public Sewers.	
4.0 Operation and Maintenance Program [SSSWDR D.13(iv)]	In Compliance	Cuesta was effective in implementing this section.	N/A
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)]	In Compliance	Cuesta has been effective at implementing a comprehensive Emergency Response Program through review of SSO Emergency Response Procedures. Continue to train staff on this program and the associated procedures annually. Document all staff training.	N/A
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 2018 SSMP by conducting CCTV investigations and evaluations on the system.	Develop a plan to assess investigative efforts (CCTV and other inspections and monitoring) to



SSSWDR Section D.13	SSMP Compliance with Required Subsection	Cuesta Effectiveness in the Implementation of SSMP Subsections	Schedule
			assess the need for future capacity related CIP prior to 2020.
9.0 Monitoring, Measurement, and Program Modifications [SSSWDR D.13(ix)]	In Compliance	Cuesta was effective at implementing this section as identified in the 2018 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. The second SSMP Audit was due on or before May 2, 2019 and was completed in March 2019.	Include the 2019 SSMP Audit Report in the appendix to the SSMP.
11.0 Communication Program [SSSWDR D.13(xi)]	Substantial Compliance	Cuesta was effective in implementing this section of the SSMP. Future SSMP revisions should document Communication Program efforts conducted in 2019/20 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 details 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 2 dated May 2018 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 2, May 2019 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. The District has recently had several maintenance staff and administrative staff retire or who are extended leave of absence, leaving many of the positions with SSMP responsibility vacant. These areas of this element should be updated when new staff are hired. Remaining staff should be assigned vacant staff's roles and responsibilities pertaining to the SSMP.

Conclusion: The section above is in substantial 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 71 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 compliance with Section D.13(ii)(c). See recommendations below.



Sufficiency: In Substantial Compliance

Reference: Cuesta SSMP 2018, Revision 2, Pages 12 -18, SSMP Appendix A, CIWQS Facility

At-A-Glance Report (April 30, 2019).

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 Cuesta 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 May 2018 SSMP, Revision 2, Pages 20 – 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 identity 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 May 2018 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 May 2018 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. In 2017 the District executed Cleaning and CCTV in significant portions the collection and conveyance system. The District developed a template to document findings observed during line cleaning and manhole inspections as part of the 2018 SSMP Update. Records demonstrating sewer line cleaning and inspections were reviewed along with an evaluation of CCTV results as part of this audit. 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.

The District completed CCTV investigations in the majority of the trunk lines in 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 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 \$225,000 for maintenance and repair 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: https://www.cuesta.edu/about/documents/fiscal-docs/Adopted_Budget_2018-2019.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 May 2018 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: In Compliance

Reference: Cuesta SSMP Rev 2: May 2018.

Deficiencies: None

Recommendation: The following are recommended activities for the future:

- Summarize any additional 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 shortand long-term CIP completion schedule based on the results of these inspections when all data is available in 2020.
- 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 2018 SSMP and SSMP Appendix "C": Revision 2, 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, May 2018.

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 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 compliance with Sections D.13 (vi)(a-f). See recommendations below.

Sufficiency: In Compliance

Reference: Cuesta May 2018 SSMP Revision 2, Cuesta Overflow Emergency Response Plan (OERP) and Emergency Operating Procedures.

Deficiencies: None – due to staffing shortages at the time of this Audit, there are minimal staff responsible/available for SSO response. The District has a list of contractors qualified to assist with SSO response if/when necessary during this period of staff vacancies.

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. Update procedures and OERP with new employees responsible for emergency response once appropriately trained after hire. 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 2, May 2018 p. 42-43

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 regard 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,
- 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,
- 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 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 is being implemented 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 May 2018 SSMP Rev 2.

Deficiencies: N/A

Recommendation: Continue to update the plan and schedule for completion of the District's 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 evaluate annually the implementation and effectiveness of each section of the SSMP or preventative maintenance activities through a review of CIWQs and Annual Reports.

Conclusion: The section above is in compliance with Section D.13(ix)(b) and (c). See recommendations below.

Finding: Section D.13 (ix)(d): Annual reports and evaluations trending Cuesta's performance history have been completed since the last formal SSMP Update. 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 in 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. There have been no SSOs since 2010.



Conclusion: The section above is in compliance with Section D.13(ix)(e). See recommendations below.

Sufficiency: In Compliance

Reference: Cuesta SSMP May 2018 Revision 2, CIWQS Report April 30, 2019.

Deficiencies: None

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 asses 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 May 2018 Revision 2, Page 54-56 and SSMP Audit Report, April 2017.

Deficiencies: The District chose to amend the SSMP Audit schedule based on the original 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: Completed
- May 2, 2019: Planned for Completion prior to May 2, 2019
- May 2, 2021
- May 2, 2023

Recommendation: The next bi-annual audit is due prior to May 2, 2021, 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 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. The District has implemented this communication plan in the following ways:

- Posting of Cuesta's SSMP District's website: http://www.cuesta.edu/about/depts/facilities/index.html.
- Development of Annual Reports on Sewer System Performance for the Board of Trustees
- Additional outreach information regarding acceptable items for discharge to the District sewer system were also developed but not distributed to the public since the last SSMP update.
- 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 is committed to conducting outreach as a proactive measure to communicate with these facilities on standard operation and maintenance procedures for their systems. These outreach efforts have not been conducted since the last update to the District's SSMP.

Sufficiency: Substantial Compliance

Reference: Cuesta SSMP May 2018 Revision 2, Page 58-59, Cuesta website: http://www.cuesta.edu/about/depts/facilities/index.html.

Deficiencies: Cuesta has implemented the majority of the commitments identified in communication program.

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.



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: April 30, 2019
- 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 and Summary
- 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. FOG Interceptor Contractor Pumping Form
- 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 April 2017
- 11.0 Communication Program
 - a. Cuesta Website: http://www.cuesta.edu/about/depts/facilities/index.html
 - b. Appendix H "Toilets are Not Trashcans" flyer
 - c. SSMP Annual Status Report



Outreach Examples	

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 wipes 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.



- 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.

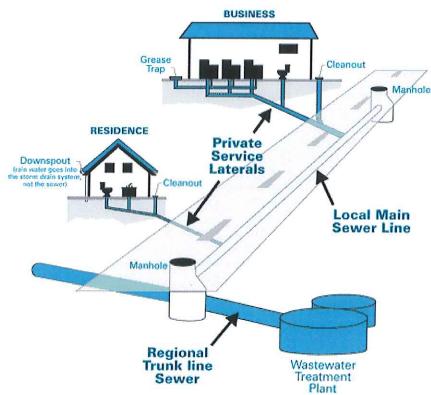


Diagram of a sanitary sewer system



