

Santa Lucia Preserve
Santa Lucia Community Services District
Carmel, Ca

Sanitary Sewer Management Plan

2014

Prepared by Leif Utegaard, System Operator and Manager

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ABBREVIATIONS / ACRONYMS

CCTV	Closed Circuit Television
CIP	Capital Improvement Plan
CIWQS	California Integrated Water Quality System
FOG	Fats, Oils and Grease
GPD	Gallons per Day
GWDR	General Waste Discharge Requirements
I&I	Infiltration and Intrusion
LAFCo	Local Agency Formation Commission
MBR	Membrane Biological Reactor
MRP	Monitoring and Reporting Plan
OES	Office of Emergency Services
RWQCB	Regional Water Quality Control Board
SCADA	Supervisory Control and Data Acquisition
SLC	Santa Lucia Conservancy
SLCSD	Santa Lucia Community Services District
SLP	Santa Lucia Preserve
SSMP	Sanitary Sewer Management Plan
SSO	Sanitary Sewer Overflow
SWRCB	State Water Resources Control Board
WWTP	Wastewater Treatment Plant

Introduction:

This document is the Sewer System Management Plan, also called SSMP, for the Santa Lucia Preserve, in Carmel, California. This document describes the activities that the Santa Lucia Preserve Community Services District uses to manage its wastewater collection system effectively. The development of SLP's SSMP was required when the State Water Resources Control Board (SWRCB) adopted the Statewide General Waste Discharge Requirement (GWDR) on May 2, 2006. The GWDR established requirements for operating, maintaining and managing wastewater collection systems. The GWDR applies to all public collection system agencies in California that own or operate collection systems comprised of more than one mile of pipe or sewer lines, which convey untreated wastewater to a publicly owned treatment facility, and requires each agency to prepare an SSMP.

Effective management of a wastewater collection system as defined in the GWDR includes:

1. Maintaining or improving the condition of the collection system infrastructure in order to provide reliable service into the future.
2. Cost-effectively minimizing infiltration/inflow (I/I) and providing adequate sewer capacity to accommodate design storm flows; and
3. Minimizing the number and impact of sanitary sewer overflows (SSOs) that occur.

In order to achieve the above goals each wastewater collection system agency is required to develop and implement an SSMP

This document contains the required SSMP elements, as outlined in the Statewide GWDR. The required elements of an SSMP are as follow:

1. Collection system management goals
2. Organization of personnel, including the chain of command and communications
3. Legal authority for permitting flows into the system, inflow/infiltration control as well as enforcement of proper design, installation, and testing standards, and inspection requirements for new and rehabilitated sewers
4. Operations and maintenance activities to maintain the wastewater collection system
5. Design and performance provisions
6. Overflow emergency response plan
7. Fats, oils, and grease (FOG) control program
8. System evaluation and capacity assurance program
9. Monitoring, measurement, and modifications plan for SSMP program effectiveness
10. Periodic internal SSMP audits
11. SSMP communication program

The tabs follow the order required in GWDR. This introductory section has been added to: introduce the need for the SSMP, provide a list of abbreviations used, provide a glossary of terms, and include a copy of the final GWDR adopted by the State. This allows a ready reference for anyone who may wish to refer to the specific terminology and requirements of the Statewide General Waste Discharge Requirement.

While not listed in the required SSMP elements, the first requirement of the GWDR is to develop a plan and schedule for completing the requirements of the GWDR. The schedule must take into account the size of the agency's sewage collection system since due dates are based on the size of the agency's sewage collection system. The plan and schedule should note those milestones and the persons responsible for completing them.

It should also be noted that the goals and organization sections were combined into one section. Additionally, extra tabs were included under the Operations and Maintenance Program tab. Additional tabs were inserted for:

- a. Collection System map
- b. Preventive Operations and Maintenance
- c. Rehabilitation and Replacement Plan
- d. Training
- e. Contingency Equipment and Replacement Inventories

Each section begins by listing the specific minimum SSMP requirements. These requirements ARE indicated as bold text in gray boxes in each section of this document. Where there may be required sub-elements, the minimum SSMP requirements are included where the material covers that sub-element.

Section 1 – Management Goals

1A. Introduction

This Sewer System Management Plan (SSMP) has been prepared to meet the requirements adopted by the State Water Resources Control Board (SWRCB) on May 2, 2006.

1B. Regulatory Requirement

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 occur.

1C. SSMP Goals

The goals of this SSMP are to:

1. Properly manage, operate, and maintain all portions of the Agency's wastewater collection system.
2. Provide adequate capacity to convey the peak wastewater flows. Adequate capacity, for the purposes of this SSMP, is defined as the capacity to convey the peak wastewater flows that are associated with the design storm event.
3. Minimize the frequency of SSOs.
4. Mitigate the impacts that are associated with any SSO that may occur.
5. Meet all applicable regulatory notification and reporting requirements.
6. Identify and repair I&I.

1D. Santa Lucia Community Services District Goals

The goals of SLCSO are to:

1. Provide consistent free flow of wastewater to the WWTP.
2. Assist new connections with inspections and consulting to ensure the proper flows and acceptable sources for the collection system.
3. Rapid response to blockages and other system issues.
4. Maintain personnel and equipment to respond to issues.
5. Maintain all lift-stations in proper working order and emergency power needs.
6. Identify I&I points during the wet months.
7. Repair greater contributors to I&I during the dry season.
8. Develop and maintain as-built system maps and records.
9. Insure containment of all waste materials throughout the collection system.
10. Public and employee safety.
11. Inspect collection system sections on a bi-annual basis.

Section 2 – Organization

2A. Introduction

The intent of this section of the SSMP is to identify Agency Staff who are responsible for implementing this SSMP, responding to SSO events, and meeting the SSO reporting requirements. This section also includes the designation of the Authorized Representative to meet SWRCB requirements for completing and certifying spill reports.

2B. Regulatory Requirement

The SSMP must identify

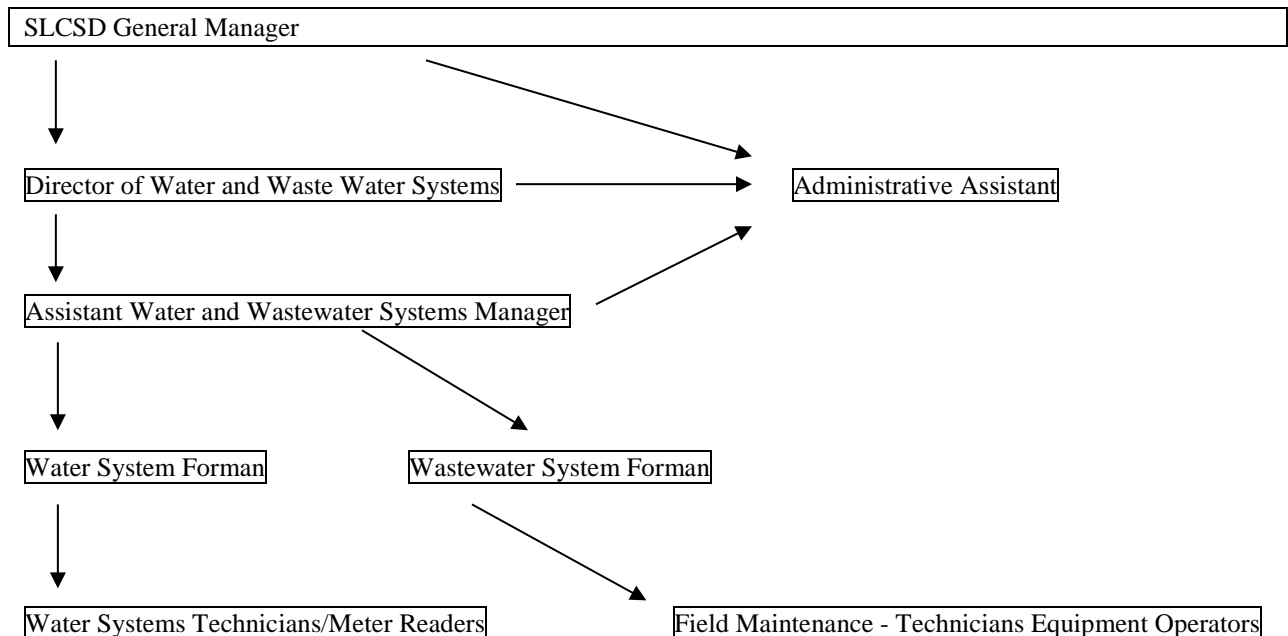
- 1. The name of the agency's responsible or authorized representative*
- 2. The names and telephone numbers for management, administrative, and maintenance positions for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and*

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

2C. Organization Charts

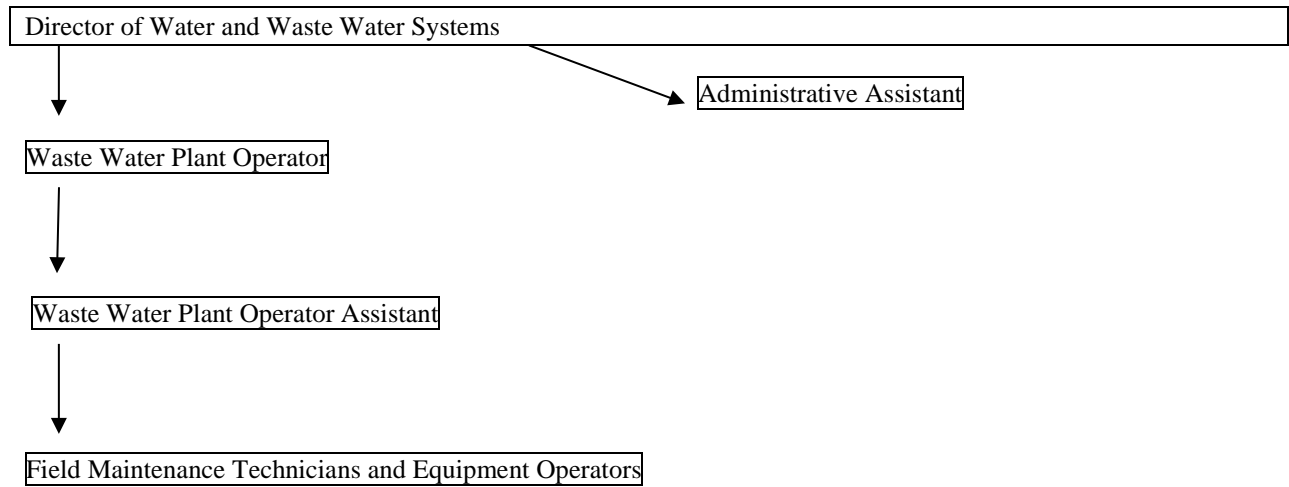
The following organization charts shows the management, administrative, and maintenance positions for implementing specific measures in the SSMP program and lines of authority. The first chart shows the overall SLCSO structure.

2C.1. Organization Structure



The second shows the organization of the Water/Wastewater Services Department of the Community Services District.

2C.2. Organization Structure



2D. Authorized Representative

The Authorized Representative in all wastewater collection system matters is:

Mr. Alan Leif Utegaard
Director of Water and Waste Water Systems
State Licensed Wastewater System Operator
License No. III-9474
Santa Lucia Preserve
Mail: One Rancho San Carlos Road
Office: 83 Rancho San Carlos Road
Carmel, CA 93923

Mr. Utegaard is authorized to submit verbal, electronic, and written spill reports to the RWQCB, SWRCB, County Health Agency, and OES. Mr. Utegaard is also authorized to certify electronic spill reports submitted to the SWRCB.

2E. Names, Phone Numbers, and Lines of Authority

Name and telephone numbers for key management, administrative, and maintenance positions for implementing specific measures in the SSMP program are as follows:

Position	Name	Telephone Number
General Manager, SLCSD	Forrest Arthur	(831) 620-6791
Director of Water and Wastewater Systems Manager	Alan Leif Utegaard	(831) 620-6787 Cell: (831) 238-3157
Assistant Water and Wastewater Systems Manager	Aaron Dula	(831) 620-6783 Cell: (831) 238-4283
Water Department Forman	Aaron Dula	(831) 620-6783 Cell: (831) 238-4283
Wastewater System Forman	Kevin Siring	(831) 620-6788

Responsibilities

General Manager – This is an exempt position appointed by the Board of Directors responsible for implementing Board policy and for planning, organizing, directing and controlling the activities and operations of the Santa Lucia Preserve Community Services District, including public safety, community development, finance, public works and administration; to develop policy recommendations for Board action; and to provide highly responsible and complex administrative support to the Board.

Water Systems Manager – Plans, organizes, directs and reviews the activities and operations of SLP's sewer treatment and collections, water production and distribution systems, and conservation efforts. Holds all necessary state licenses to operate water, wastewater and distribution systems. Has departmental budgeting authority. Coordinates assigned activities with other SLP departments and outside agencies. Provide highly responsible and complex administrative support to the General Manager. Acts as a member of the General Manager's management team.

Wastewater System Asst. Manager – Organizes, monitors and supervises assigned functions including the wastewater reclamation facility and sewer system within the Community Services District. Perform a variety of technical tasks relative to the wastewater/sewer operations. Manages field operations and maintenance activities, provides relevant information to agency management, prepares and implements contingency plans, leads emergency response, investigates and reports SSOs to the Water Systems Manager, and trains field crews.

Field Crew – Perform preventive maintenance and inspection activities, mobilize and respond to notification of stoppages and SSOs (mobilize sewer cleaning equipment, by-pass pumping equipment, and portable generators).

Chain of Communication for Reporting SSOs

The Water Systems Director is our sole reporting person.

Reporting is directed to:

The OES phone number and CWIQS website as listed in section 6. (The Overflow Emergency Response Plan)

Section 3 - Legal Authority

3A. Introduction

The intent of this section of the SSMP is to summarize the legal authority of the agency to regulate the design, construction, and operation of the wastewater collection system. Legal authority refers to powers granted to the wastewater collection system agency to provide services to the public, typically through sewer use ordinances, service agreements, and other mechanisms. Using this legal authority, the wastewater collection system agency can require system users to meet performance standards, maintain user-owned elements of the system, and pay penalties for non-compliance.

Without adequate legal authority to own and operate a public sewer system, an agency will not be able to effectively operate that system, insure new sewers are constructed adequately, solve operation and maintenance problems, interact with the public and developers, and reduce sewer system overflows.

3B. Regulatory Requirement

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:

- a. Prevent illicit discharges into its sanitary sewer system, including I/I from satellite wastewater collection systems and laterals, storm water, unauthorized debris, etc.*
- b. Require proper design and construction of sewers and connections*
- c. Ensure access for maintenance, inspection and repairs to publicly owned portions of laterals*
- d. Limit the discharge of FOG (Fats Oils and Grease) and other debris that may cause blockages*
- e. Enforce violations of its sewer ordinances*

3C. Santa Lucia Community Services District Legal Authority

The Santa Lucia Community Services District was formed by the County of Monterey Ca. Resolution No. 98-359 as the local agency under LAFCO Resolution No. 98-07.

Monterey County Subdivision Ordinance No. 1713 contains the county conditions and permissions to operate a wastewater system in compliance with the California Water Quality Control Board Order No. 98-60 for Waste Discharge and Recycled Water Producer Requirements.

Monterey County Resolution No. 96-060 and 96-218 allowed the development of the wastewater treatment plant use and disposal lots for reclaimed wastewater. From the Vesting Tentative Subdivision Map of the Santa Lucia Preserve; Monterey Co. file No. PC94-067 approved by the Monterey County Board of Supervisors on February 6, 1996.

Section 4 – Operations and Maintenance

System Map - Attachment A. (SLP Sewer Facilities)

4. Regulatory Requirement

*(iv) **Operation and Maintenance Program.** The SSMP must include those elements 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 stormwater 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.

4A. Maintenance:

Flushing Program: The collection system can be divided into several different zones. These are called 1. Phase F, 2. Garzas, 3. Central, 4. Pronghorn, 5. Arroyo and 6. San Clemente. These 6 zones are flushed over each 2 year period. We only flush one at a time in order to prevent overloading the WWTP. During flushing, staff is positioned to observe the passage through sections of each zone. If clogging is noticed, flushing is stopped until the line can be cleared. Clearing can be achieved using our jetter or snake. For jobs larger than we can handle, we would call our local septic pumping service. Flushing is done in stages defined by the 6 lift stations; Phase F, Garzas 1, Garzas 2, San Clemente, Lower Arroyo, and Upper Arroyo.

Lift Station Maintenance: Pumps are run manually, floats are checked and pump down ability is observed monthly. In the event of failure, pumps are lifted out with a backhoe or well pump rig and either repaired or replaced. Duplicity is maintained. Lift stations are equipped with visual, audible and telephone alarms. The plant supervisor, second operator and system manager's phone numbers are dialed in the event of a lift station failure. Each pump vault is connected to a 5,000 gal. emergency tank. Each lift station pump panel is equipped with an emergency power plug to connect one of seven emergency generators maintained and owned by the Santa Lucia Community Services District.

Manhole Maintenance: During winter rain events, staff makes the rounds inspecting consecutive manholes for rainwater infiltration. If intrusion is detected, the location is noted for repair during the following dry season. Manhole grade rings and surface infiltration is also checked. Grade rings are sealed and a manhole insert is placed under the cover to prevent surface infiltration. Manholes at or near grade are fitted with cover inserts that will prevent infiltration through the surface from the manhole grade ring.

Collection Line Maintenance: As described under Flushing, the collection system is sectioned off for flushing and camera inspections. Normally high I&I flows adds to our flushing. In the event of a clog, staff will combine the use of our sewer camera and line pressure jetter to remove the clog. If the clog is more resistant, we use off-site services, typically from Peninsula Septic Tank Service in Carmel Valley. They have equipment for routing and vacuuming lines with a greater reach than the district possesses. Camera inspections take place at three of the six sections each year. At this time sewer lids, lid inserts and manholes are inspected for problems. Repairs follow and are recorded in the departments work order system. The whole system is inspected every 2 years.

New Connection Inspections: Prior to burying the new construction tie-in to our collection system, contractors are to allow us to inspect. We observe the connections, fall, clean-outs and building side tie-ins. We photograph and GPS important points for future locating. Construction plans are archived into a plan archive available to us on our computer network.

WWTP Capacity: The (under construction) completed WWTP will have changed from a 25K gpd trickling filter plant to a 120K gpd membrane biological reactor with a membrane storm water separator.

As of Aug. 22nd 2014, the MBR portion of the treatment plant went online. At this time, the wastewater system has a daily dry weather flow avg. capacity of 41K gpd. The plant peak flows

are 2-3 times this value for periods of 2 or 3 days. The second system being built now will increase the plant's capacity to 120K gpd to deal with future I&I.

4B. Rehabilitation and Replacement Plan

The Santa Lucia Community Services District owns and operates both the water and wastewater facilities. Equipment and supplies are maintained for both systems under the same management. Lift station pumps are duplex. If repairs are necessary one pump is pulled for repair and the other is monitored closely while waiting for its return or replacement. Two lift stations are currently on our SCADA system. We have control and trending for these two.

Funding for the collection system and others are guaranteed by annual Property Related Fees as set by the Santa Lucia Community Services District Board and the County of Monterey Ca.

Section 5 - Design and Performance Provisions:

5. Regulatory Requirement

(v) *Design and Performance Provisions:*

(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.

5A. Design and Performance Provisions Compliance

The collection system was completed in 2002 with new materials.

Lift Stations: Six lift stations supply wastewater to the central area that has gravity flow to the WWTP. All lift stations are equipped with dialer alarm systems and emergency power connectors. The pumps alternate, have hour meters and are ultra-sonic level control with float backup. All lift stations have a 5,000 gal. emergency overflow tank.

Lift Station #1 Garzas Rd. is supplied with:

2- ABS Piranha M25/2W 3.4 hp, 230V 3 phase, that pump 75 gpm each

Lift Station #2 Garzas Rd is supplied with:

2- ABS Piranha M25/2W 3.4 hp, 230V, that pump 75 gpm each

Lift Station – Phase F Chamisal Rd. is supplied with:

2 – Flygt 3000 Series, Xylem Flygt MiniCAS supervision system, 480V 3-Phase 3 hp

Lift Station – San Clemente Rd. is supplied with:

2 - Flygt 230V 3-Phase 11 hp

Lift station Lower Arroyo – Arroyo Sequoia is supplied with:

2 – Flygt 480V 3-Phase 11 hp

Lift Station Upper Arroyo – Arroyo Sequoia is supplied with:

2 – Flygt 480V 3-Phase 11 hp

Collection piping:

Gravity Sewer lines are 6" and 4" SDR

Force Mains are 2" schedule 40 PVC

Manholes:

Cement manholes with grade rings and Ram Neck

Cast Iron cover and rims.

Some have been retro-fitted with black mastic and water barrier paper in low ground water areas to prevent I&I. Connections are grouted.

5B. Sanitary Sewer Specifications

All materials used for new or replacement sewer appurtenances shall be the same or equal to the materials installed and described above in 5A.

No sewer gravity sewer connection shall be less than 4" diameter pipe.

Building sewers shall be run in practical alignment and a uniform slope of not less than ¼ inch per foot.

Building sewers shall be laid on a firm bed throughout their entire length, and any such sewers laid in made or filled – in ground shall be laid on a bed of imported sand and shall be adequately supported to the satisfaction the District.

Building sewers shall not be installed under or within 2 feet of any building or structure or part thereof, except for lateral sewers, less than 12 inches below the natural surface of the ground.

Cleanouts shall be placed in every building sewer at its junction with the building drain. Sewer relief valves are recommended to relieve backups from occurring within the buildings.

Each cleanout shall be installed so that it opens in the direction opposite to the flow, except in the case of the "wye" branch and end of –line cleanouts vertically above the flow of the pipe.

Sewer pipes and trenches shall be left uncovered until inspected by the District.

Imported sand shall be placed as cover no less than 9" above the sewer pipes.

Any new construction other than laterals shall be constructed by the District only.

All district sewers shall provide a minimum of 2 ft. per second flow.

District sewer installations shall be pressure tested to hold 5psi for 30 minutes.

No trees shall be permitted within 10 ft. of the Districts sewer easements and tanks.

Any abandoned sewer connections shall be plugged or capped.

5C. Prohibited Wastes

No person shall discharge or cause to be discharged any liquid, solid or gaseous wastes to the District sewer which contain substances not specifically capable of being removed by the existing District Wastewater Treatment Facilities, or which themselves or in a combination with other substances would interfere with or be detrimental to said facilities.

- Those having a pH lower than 6.0 or exceeding 9.0
- Soluble oils
- Those having a temperature higher than 150 degrees F.
- Those exhibiting a high chlorine demand
- Dissolved sulfides exceeding 0.1 milligrams/liter
- Biodegradable oil and fats exceeding 100 milligrams/liter
- Those exhibiting intense coloring
- Cyanide
- Chlorinated hydrocarbons
- Organic phosphorous compounds
- Heavy metals
- Boron
- Phenols
- Plastic Resins

Garbage in domestic wastes discharged to District sewers shall not exceed a particle size of ¼ inch in any dimension.

No industrial waste shall be discharged to the District sewers.

No flammable or explosive liquid, solid or gas shall be discharged to the District sewers.

No ashes, cinder, sand , mud, straw, shavings, metal, glass, rags, feathers, tar, plastics wood or paunch manure shall be discharged to the District sewers.

No septic tank sludge or chemical toilet liquids or solids shall be discharged to the District sewers.

No radioactive wastes shall be discharged to the District sewers.

In all cases of dispute regarding the terms or meaning of this section, the decision of the District shall be final and binding.

5D. Sanitary Sewer Collection System Assets

Table 1: Size and distribution of active sewers

Pipe Diameter (inches)	Length (feet)	Length (miles)	Percentage of System (by length)
2	7136	1.35	9.27%
4	17914	3.39	23.27%
6	51920	9.84	67.45%
(Outfall)			
TOTAL	76970	14.58	100.00%

Table 2: Distribution of gravity and forced sewers

Pipe	Length (feet)	Length (miles)	Percentage of System (by length)
Forced	7136	1.35	9.27%
Gravity	69834	13.23	90.73%
TOTAL	76970	14.58	100.00%

Table 3: Breakdown of sewer collection system by age

Pipe Age	Length (feet)	Length (miles)	Percentage of System (by length)
12 years	76970	14.58	100%
TOTAL	76970	14.58	100%

Table 4: Breakdown of sewer collection system by age & type, & pumpstation

Pipe Age	Length (miles) Gravity Sewer	Length (feet) Gravity Sewer	Length (feet) Forcemain	Number of Pumpstations
12 years	13.23	69834	7136	6
TOTAL	13.23	69834	7136	6

Table 5: Sanitary Sewer Pump station names and capacity

Station	Address	# of Pumps	EST. Capacity GPM Per Pump	Total Dynamic Head	Est. Daily Flow* (GPD)	Est. Daily Capacity : (Gallons w/one pump)
Upper Garzas	Garzas Rd.	2	75		1560	108000
Lower Garzas	Garzas Rd.	2	75		1708	108000
Upper Arroyo	Arroyo Sequoia	2	75		488	108000
Lower Arroyo	Arroyo Sequoia	2	75		1952	108000
San Clemente	San Clemente	2	75		2684	108000
Phase F	Chamisal Pass	2	75		732	108000

* Estimated Daily flow is based on pump run-times, gpm of station, in dry weather (24 hr period)

Section 6 - Overflow Emergency Response Plan

6. Regulatory Requirement

*(vi) **Overflow Emergency Response Plan** - Each Enrollee shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:*

- (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 an appropriate response to all overflows;*
- (c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, Regional Water Boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;*
- (d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the 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 and partially treated 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.*

6A. Overflow Emergency Response Plan Compliance

Early detection and notification of SSOs would typically be noticed by anyone from the public to Santa Lucia Preserve employees or contractors. They would call Santa Lucia Preserve Security Dept./Gatehouse (831-620-6750) who in turn notifies the Water/Wastewater Dept. (831-620-6787). Both departments are under the Santa Lucia CSD management and budget.

Our response would entail following the overflow upstream to the surface source and then below ground to the compromised point. All possible measures to contain the overflow will be made using dirt dams, waddles or straw bales. The affected area would be isolated using cones, pylons and caution tape to warn the public. The SLCSO maintains these supplies and equipment to respond to SSOs and other erosion or storm flow issues. The SLCSO owns backhoes, loaders, excavator, water truck, dozer, CCTV and a sewer pressure cleaner. Outside help can be called quickly to respond to other issues that can arise. Off-site assistance will be provided by PSTS (831-659-2465).

All responding personnel are trained to use and isolate spills. The department maintains a weekly safety training meeting each Thursday morning and SSO spill reaction and personnel protection is one of the recurring topics.

Notification will be made at the time of the overflow detection to the manager and assistant manager of the Water/Wastewater Dept. who in turn will call out staff to respond.

For Notifications, refer to the MRP, Appendix B of this SSMP

Section 7 – FOG Control Program

7. Regulatory Requirement

(vii) FOG Control Program: 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), 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 Enrollee 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.*

7A. FOG Control Program Compliance

The collection system at the Preserve has two connections to commercial kitchens. These are for the Hacienda and the Golf Club. Both of these buildings have grease interceptors and are maintained by the clubs. They have regularly scheduled grease removals by vacuum truck. All other grease historically has collected in the influent wet well at the treatment plant. The grease loading has been relatively low and manageable. It has been dealt with by periodically having the wet well pumped out and scraping the grease from the wet well. The off-site vacuum trucks dispose of their loads at the Monterey Regional Wastewater Treatment Plant in Marina Ca. Occurrences of grease build up in the collection system have been flushed in our flushing program. To date we have not had any grease buildup that has caused a blockage leading to a SSO. We believe that this process works well and do not envision a need for a more elaborate FOG program.

Section 8 - Design and Performance Provisions:

8. Regulatory Requirement

*(viii) **System Evaluation and Capacity Assurance Plan:** The Enrollee shall prepare and implement a 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. 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 an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;*

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

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

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

8A. Design and Performance Compliance

As of Aug. 22nd 2014, the MBR portion of the new treatment plant went online. At this time, the wastewater system has a daily dry weather flow avg. capacity of 41K gpd. The plant peak flows are 2-3 times this value for periods of 2 or 3 days. A second integrated system being built now will increase the plant's capacity to 120K gpd to deal with future I&I. In 2010 the SLCSO increased the capacity of the lined emergency holding pond from a 3-day emergency pond to a 5-day emergency pond. The actual capacity is in excess of 5 days dry weather flow.

The collection system has not had any issues since its construction with overflows. The system is designed to handle 102 market rate homes, employee housing and some commercial connections. The commercial connections have been online since the in 2001. Employee housing came online shortly afterwards. 35 of the 102 market rate homes are online as of Sept. 2014.

I&I has been known to be high in some years. High I&I allowed us to evaluate the flow characteristics of the collection system, and we have been able to determine that with as much as 200% of maximum design flow there were no overflows. SLCSO has an annual I&I repair plan that will further reduce the loading as time goes forward.

Current (at today's build out status) average daily flows are approximately 11,000 gpd. With a treatment plant capable of 120,000 gpd, a 5-day emergency storage pond and a collection system able to handle at least 200% of maximum daily flows the system exhibits enough capacity to handle sewer flows up to and beyond build out parameters.

The SLCSD CIP is built into to the funding and budgeting of District as a whole. Property owners are assessed through their property taxes to the Monterey County which in turn funds the SLCSD for water, wastewater, roads, storm flows, security and administration. The SLCSD is governed by an elected board that meets once a quarter and normally holds several special meetings each year. SLCSD provides funding for the wastewater treatment and collection systems and maintains a reserve fund for larger emergencies and capital improvement projects. The entire collection system was constructed to meet the demands of the build out conditions. There are no plans to expand the system at this time. Budgeted funding is primarily for operation and maintenance of the system.

Section 9 - Monitoring, Measurement, and Program Modifications

(ix) Monitoring, Measurement, and Program Modifications: The Enrollee shall:

(a) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;

(b) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;

(c) Assess the success of the preventative maintenance program;

(d) Update program elements, as appropriate, based on monitoring or performance evaluations; and

(e) Identify and illustrate SSO trends, including: frequency, location, and volume.

9A. Monitoring, Measurement, and Program Modifications Compliance

The SLCSD monitors the activities relating to the elements of the SSMP and historical records using the following methods.

- (a) A work order system recording the activity, either maintenance or problem driven. It contains the date and any action required to complete the task.
- (b) The Wastewater plant log is a journal maintained daily recording the activities of the wastewater system, both plant and collection system.
- (c) Mapping of incidents within the system is accomplished using ArcGIS and Trimble GNSS Geo Explorer Rovers. Over time, hot spots will become apparent using this system. Maps are stored on the Santa Lucia Preserve's network so that access is available to authorized personnel.
- (d) Daily inflows are recorded in the treatment plant logs along with loadings and other analyses.

Section 10 - SSMP Program Audits

*(x) **SSMP Program Audits** - 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.*

10A. SSMP Program Audits Compliance

Every two years, SLCSD will produce an internal audit report that reviews the work orders, logs SSO occurrences and mapping to assess system needs and then generate new work orders for upgrades and repairs.

Section 11 – Communication Program

*(xi) **Communication Program** – 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 communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.*

11A. Communication Program Compliance

SLCSD operates a very small sewer collection system. The board is comprised of property owners that live on-site. Our offices are located on site as well. The collection system and all other systems are owned by the residents and they have direct communication abilities with our office through telephone, email, walk-in or through public hearing at the quarterly board meetings. Residents are noticed regularly regarding capital projects, financial reports, email announcements, town hall meetings and the Santa Lucia Preserve Member's website.