

CITY OF SANTA BARBARA



Sewer System Management Plan

Updated
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Introduction

Purpose

The requirements for the management, operation, and maintenance of the City of Santa Barbara's (City) sanitary sewer system, including the wastewater collection system and the wastewater treatment plant, are specified in NPDES Permit CA0088143 issued by the Central Coast Regional Water Quality Control Board on October 29, 2004. The NPDES Permit requires the City to prepare and implement a Wastewater Collection System Management Plan (WCSMP). The required contents of the WCSMP are specified.

The California State Water Resources Control Board adopted Statewide General Waste Discharge Requirements for Wastewater Collection System Agencies (GWDR) on May 2, 2006. The GWDR requires the City to prepare and implement a Sewer System Management Plan (SSMP). The required contents of the SSMP are specified.

The purpose of this Wastewater Collection System/Sewer System Management Plan is to comply with both the requirements of the City's NPDES Permit and the GWDR.

Sewer System Facilities

The City operates and maintains a 277 mile collection system serving a population of approximately 95,000. The gravity sewer sizes range from 4 to 42 inches in diameter. The predominant pipe material is vitrified clay, accounting for 78% of the collection system's total length. The average age of the collection system is approximately 50 years. The collection system facilities include 9 lift stations, 10 inverted siphons, 25 creek crossings, and over 7,000 access structures (manholes and clean outs). The service area is shown on Figure 1. Information regarding the 9 lift stations is shown on Table 1.

Property owners are responsible for the condition and maintenance of their sewer service lateral from the building drain to the sewer main, including the portion in the public right-of-way.

Satellite Collection System

There is one satellite collection system serving the Mission Canyon area, which is owned by the Santa Barbara County Public Works Department and is operated and maintained by the City. The Mission Canyon collection system is covered by a separate WCSMP prepared by the County. The Mission Canyon wastewater collection system consists of approximately five miles of gravity sewers and two lift stations.

Figure 1: Wastewater Collection System Service Area



Table 1: Lift Station Information

Lift Station Name	Capacity, gpm	Comments
Andante ¹	43	Serves 8 parcels. 7 hour holding time ²
Breamar	1,000	SCADA ³ , Emergency generator in place
El Camino De La Cruz	150	SCADA, Emergency generator in place
La Colina	400	SCADA, Emergency generator in place
Linda Road	150	SCADA, Emergency generator in place
Skofield	250	SCADA, 14 hour holding time
Tallant Road	100	SCADA, 5 hour holding time
Via Lucero	400	SCADA, Emergency generator being installed
Vista Elavada ¹	43	Serves 11 parcels, 7 hour holding time
Notes:		
1. Lift stations owned by Santa Barbara County and operated by the City.		
2. Holding times based on dry weather flow conditions.		
3. SCADA indicates the lift station is remotely monitored, and controlled by a Supervisory Control and Data Acquisition system.		

Definitions

Building lateral or house lateral – The piping that carries the wastewater from the house to the City sewer system. The property owner owns and is responsible for maintaining the building lateral.

Dispatch – Dispatch may refer to either Control 10 (working hours) or Control 14 (after hours).

ESW – ESW refers to the City's On Call Emergency Service Worker.

First responder – First responder refers to the field crew or the On Call personnel that are the City's initial response to an SSO or other sewer system event.

CarteGraph – CarteGraph refers to the computerized work order management system that is used by the City to manage its sewer system.

FSE – FSE refers to a food service establishment.

GWDR – GWDR refers to the General Waste Discharge Requirements for Wastewater Collection System Agencies.

NPDES Permit – NPDES Permit refers to the City's National Pollutant Discharge Elimination System Permit.

OES – OES refers to the Governor's Office of Emergency Services.

Property damage overflow – Property damage overflow refers to a sewer overflow or backup that contaminates a property owner's premises.

RWQCB – RWQCB refers to the Central Coast Regional Water Quality Control Board.

Sensitive area – Sensitive area refers to areas where an SSO could result in a fish kill or pose an imminent or substantial danger to human health.

Sewer system – Sewer system refers to the sanitary sewer facilities owned and operated by the City of Santa Barbara.

Sanitary sewer overflow (SSO) – SSO refers to the discharge of untreated or partially treated sewage at any point upstream of the treatment plant.

SCADA – SCADA refers to the Supervisory Control and Data Acquisition system that monitors lift station performance.

SSMP – SSMP refers to the Sewer System Management Plan required by the GWDR.

Water body – A water body is any stream, creek, river, pond, impoundment, lagoon, wetland, bay, or the Pacific Ocean.

Water of the State – Water of the State means any water, surface or underground, including saline waters, within the boundaries of California. In case of a sewage spill, storm drains are considered to be waters of the State unless the sewage is completely contained and returned to the sewer system.

WCSMP – WCSMP refers to the Wastewater Collection System Management Plan required by the City's NPDES Permit.

Preliminary Section: Plan and Schedule

A. Plan

The City completed its WCSMP by the October 31, 2006 deadline that was included in its NPDES permit. The City has implemented each of the elements of its WCSMP as they were completed.

B. Schedule

The schedule for completion of the SSMP required by the Statewide General Waste Discharge Requirements for Wastewater Collection System Agencies (GWDR), as it pertains to the City, is shown on Table

Table P-1: GWDR SSMP Preparation Schedule

Activity	Deadline
Enroll in GWDR	11/2/2006
Begin CIWQS Electronic SSO Reporting	5/2/2007
SSMP Development Plan and Schedule	11/1/2007
Complete SSMP Sections: I Goals II Organization	11/1/2007
Complete SSMP Sections: III Legal Authority IV Operation and Maintenance Program VI Overflow Emergency Response Plan VII FOG Control Program	5/1/2009
Complete SSMP including Sections: V Design and Performance Provisions VIII System Evaluation and Capacity Assurance Plan IX Monitoring, Measurement, and Plan Modifications X SSMP Program Audits XI Communication Program	8/1/2009

The City has prepared its WCSMP to meet the GWDR requirements for an SSMP with the result that the City's SSMP is complete well ahead of the deadlines

Section I. Goals

A. Regulatory Requirements for the Goals Element

NPDES Permit Requirement

The goal of the WCSMP is to prevent overflows and to provide a plan and schedule for implementation of measures to prevent overflows.

GWDR 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 do occur.

B. Goals

The Wastewater Collection section's program mission statement is: "Convey wastewater to the City treatment plant reliably and cost efficiently, meet all applicable state and federal requirements, and protect the environment." To support this program's mission statement, the City has developed the following goals as adopted by the City's Council as part of the annual Performance Measures and Objectives included in the City's budget.

The City's goals are:

- A. To properly manage, operate, and maintain all portions of the City's wastewater collection system.
- B. To provide adequate capacity to convey the peak wastewater flows. Adequate capacity, for the purposes of this WCSMP, is defined as the capacity to convey the peak wastewater flows that are associated with the design storm event (for recently designed sewers this is a 10 year 24 hour storm).
- C. To minimize the frequency of SSOs.
- D. To mitigate the impacts that are associated with any SSO that may occur.
- E. To meet all applicable regulatory notification and reporting requirements.

This SSMP supports the City's existing Performance Measures and Objectives goals by providing guidelines for all components of the program. The SSMP will assist the City by providing a framework for effective maintenance, capacity management and SSO emergency response.

Section II. Organization

A. Regulatory Requirements for the Organization Element

NPDES Permit Requirement

The collection system agency's WCSMP must identify:

- A. Administrative and maintenance positions responsible for implementing measures in the WCSMP program, including lines of authority by organization chart or similar document; and
- B. The chain of communications for reporting overflows, from receipt of complaint or other information, including the person responsible for reporting overflows to the RWQCB, Santa Barbara County Health Department, and the State Office of Emergency Services (OES).

GWDR Requirement

The SSMP must identify:

- A. The name of the responsible or authorized representative as described in 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 (OES)).

B. Organization

1. Organization Chart

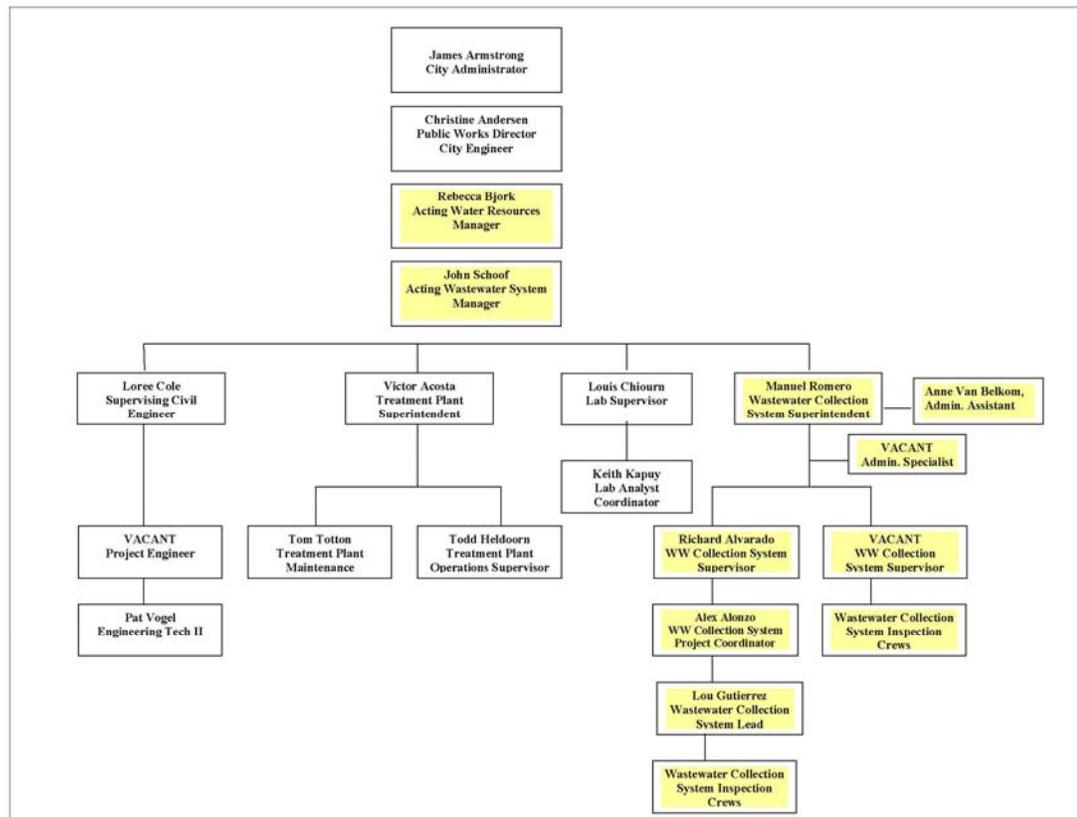
The organization chart for the management, operation, and maintenance of the City's wastewater collection system is shown on Figure II-1.

2. Authorized Representative

The City's Authorized Representative in all wastewater collection system matters is Manuel Romero, Wastewater Collection System Superintendent. Mr. Romero is authorized to submit verbal, electronic, and written spill reports to the RWQCB, SWRCB, Santa Barbara County Health Department, and OES. Mr. Romero is authorized to certify electronic spill reports submitted to the SWRCB.

Richard Alvarado, Wastewater Collection System Supervisor, is authorized to submit verbal, electronic, and written spill reports to the SWRCB, RWQCB, Santa Barbara County Health Department, and OES. Mr. Alvarado is authorized to act as the City's Authorized Representative in Mr. Romero's absence.

Figure II-1: Wastewater Collection System Organization Chart



3. *Responsibility for WCSMP Implementation*

Mr. Romero is responsible for developing, implementing, and maintaining all elements of the City's WCSMP.

Other City Staff responsible for developing, implementing, and maintaining specific elements of the City's WCSMP, along with their job titles and contact information, are shown in Appendix II-A.

4. *SSO Reporting Chain of Communication*

The SSO Reporting Chain of Command follows the Organization Chart shown on Figure II-1. The SSO Reporting process and responsibilities are described in detail in Section VI - Overflow Emergency Response Plan.

Section III. Legal Authority

A. Introduction

The City's legal authorities with respect to its wastewater collection system are included in Title 14 and 16 of the City of Santa Barbara Municipal Code.

B. Regulatory Requirements for the Legal Authority Element

NPDES Permit Requirement

The WCSMP shall include legal authority, through sewer use ordinances, service agreements, or other legally binding procedures, to:

- A. Control infiltration and inflow from connections, including satellite systems;
- B. Require that sewers and connections be properly designed and constructed;
- C. Ensure proper installation, testing, and inspection of new and rehabilitated sewers (such as new or rehabilitated collector sewers and new or rehabilitated service laterals);
- D. Limit fats, oils, and grease and other debris that may cause blockages in the collection system; and
- E. Implement the national pretreatment program authorities specified under 40 CFR 403.8(f)(1).

GWDR 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 (examples may include I/I, stormwater, 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.

C. **Legal Authorities**

The legal authorities are referenced to the Municipal Code in the following tables.

1. *Ability to control infiltration and inflow from connections, including satellite systems.*

Section	Section Title
14.44.035	Connection to Private System-Written Agreement Required
14.44.060	Connections Letting Roof, Etc., Water Into Sewers
14.44.160	Maintenance of Private Systems, Etc.
14.44.170	Inspections - Access to Premises
16.04.020	Prohibitions on Storm Drainage and Ground Water
16.04.030 A	Prohibition on Unpolluted Water
16.08.075	Users Outside City

2. *Ability to require that sewers and connections are properly designed and constructed.*

Section	Section Title
14.36.030	Conformance of Facilities to Title - New Facilities
14.36.040	Conformance - Remodeling
14.36.060	Who May Do Work Under Title - Work to be Subject to Inspection and Approval
14.36.070	Notice to Remedy House Connection Sewer Deficiency
14.36.080	Standards for Plans - Approval

3. *Ability to ensure proper installation, testing, and inspection of new and rehabilitated sewers (such as new or rehabilitated collector sewers and new or rehabilitated service laterals).*

Section	Section Title
14.36.030	Conformance of Facilities to Title - New Facilities
14.36.040	Conformance - Remodeling
14.36.080	Standards for Plans - Approval
14.48.010	Required Generally
14.48.020	Connection Permit - Application

4. *Private Sewer Lateral Inspection Program – Administrative Guidelines. This section explains when inspection is required; outlines the administrative process used to notify property owner of inspection requirement; and details the timeline for compliance. Ability to ensure proper installation, testing, and inspection of new and rehabilitated service laterals.*

Section	Section Title
14.46.040.A	Health And Safety Inspections
14.46.040.B	Events Requiring An Inspection of Residential Sewer Laterals
14.36.040.C	Inspection of Commercial Properties, Condominiums And Other Common Interest Developments

14.48.0040.D	Exemptions-Sewer Lateral Inspections Will Not Be Required Under the Following Conditions
14.46.050	Qualified Inspection Companies
28.87.220	Zoning Information Report Preparation

5. *Ability to limit fats, oils, and grease and other debris that may cause blockages in the collection system.*

Section	Section Title
16.04.010	General Prohibitions on Discharges
16.04.050 A	Limitations on the Use of Commercial Garbage Grinders
16.04.060	Requirement for Interceptors
16.04.100 B	Local Limitations on Wastewater Strength
16.14.030	Damage to Facilities

6. *Ability to implement the National Pretreatment Program authorities specified under 40CFR 403.8(f)(1).*

Note: The full text of 40CFR 403.8 (f)(1) is included in Appendix III-A.

Section	Section Title
14.48.160	Permit - Revocation, Etc., in Case of Industrial Waste Connection
14.48.170	Permit - Approval of Pre-Treatment Facility Plans, Etc.
16.04.010	General Prohibitions on Discharges
16.04.040	Limitations on Radioactive Wastes
16.08.020	Wastewater Discharge Permits
16.14.070	Termination of Service
16.08.050	Pre-Treatment
16.08.060	Protection from Accidental Discharge
16.08.075	Users Outside City
16.08.080	Special Agreements
16.12.010	Non-Complying Discharges
16.04.100	Local Limitations on Wastewater Strength
16.08.010	Discharge Reports
16.08.015	Certification Requirement
16.08.030	Monitoring Facilities
16.08.040	Inspection and Sampling
16.14.034	Administrative Penalties
16.14.040	Civil Penalties
16.14.050	Criminal Penalties
16.12.020	Issuance of Cease and Desist Orders
16.12.030	Submission of Time Schedule
16.08.070	Confidential Information

Section IV. Measures and Activities (O&M Program)

A. O&M Program Goals

The City has established performance goals for the operation and maintenance of its wastewater collection system for FY 09. The City's performance goals are shown on Table IV-1.

Table IV-1: Wastewater Collection System Goals for FY 09

Performance Measures	FY 2009
Preventable overflows	< 15
Non-preventable overflows	5
Miles of wastewater collection system pipes cleaned	200
Miles of pipe smoke tested	15
Percent of calls responded to and resolved within two hours	98%
Blockages in the collection system	≤50
Miles of pipeline inspected using closed circuit television	25
Manholes inspected	600
Percent of collection system employees attending career development associated training	100%

B. Regulatory Requirements for Measures and Activities/O&M Program Element

NPDES Permit Requirement

In order to reduce overflows, the WCSMP must address the elements listed below that are appropriate and applicable to the Permittee's system and identify the person or position in the organization responsible for each element.

- A. Provide adequate operation and maintenance of facilities and equipment.
- B. Maintain an up-to-date map of the collection system showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and storm water conveyance facilities.
- C. Maintain relevant information to establish and prioritize appropriate WCSMP Activities (such as the immediate elimination of dry weather overflows or overflows into sensitive waters, such as public drinking water supplies and their source waters, swimming beaches and water where swimming occurs, shellfish growing areas, waters within Federal, State, or local parks, and waters containing threatened or endangered species or their habitats), and identify and illustrate trends in overflows, such as frequency and volume.
- D. Routine preventive operation and maintenance activities by staff and contractors; including system for scheduling regular maintenance and

cleaning of the collection system with more frequent cleaning and maintenance targeted at known problem areas as well as a tracking system for work orders.

- E. Identify and prioritize structural deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. This shall include a rehabilitation plan including schedules for the entire system. As with the preventive maintenance program, sewer rehabilitation and replacement is crucial for the prevention of spills. Among the provisions that should be specified in this section is the need to direct rehabilitation and replacement of sewer pipes which are at risk of collapse or prone to more frequent blockages due to pipe defects. The plan should also include regular visual and video inspection of sewer pipes and a system for assessing and ranking the condition of sewer pipes. Finally, the rehabilitation and replacement plan should include a financial plan that properly manages and protects the infrastructure assets. The actions outlined above shall be coordinated with the requirements for the Infiltration/Inflow and Spill Prevention contained in Order No. R3-2004-0123, Section D.4.
- F. Provide training on a regular basis for staff in collection system operations, maintenance, and monitoring, and determine if contractors' staffs are appropriately trained.
- G. Provide equipment and replacement parts inventories, including identification of critical replacement parts.
- H. Establish an implementation plan and schedule for a public education outreach program that promotes proper disposal of grease and fats.
- I. Establish a plan for responding to overflows from private property that discharge to public right-of-ways and storm drains, to prevent discharges from overflows to surface waters and storm drains.
- J. Develop a plan and a schedule for providing an analysis of alternative methods of disposal for grease and fats, and an implementation plan and schedule for providing adequate disposal capacity for grease and fats generated within the wastewater collection system service area. For example, this plan may include an evaluation of the feasibility of using sludge digesters at the Treatment Facility for grease disposal and treatment, recycling, rendering, and other disposal alternatives.
- K. Describe the fiscal resources necessary to ensure system operation, including fee structure, fiscal resources, actual and projected five-year budget expenses for staffing, operation, capital improvement projects, and reserves.
- L. Describe the staffing available to ensure system operation (identifying individuals and titles) including developing, implementing, and revising the Wastewater Collection System Management Plan. Include an organizational chart, duties, and training frequency.

GWDR Requirement

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.

C. *Measures and Activities (O&M Program)*

The elements of the City's O&M program include:

- Proactive, preventive, and corrective maintenance of gravity sewers;
- CCTV inspection to identify conditions that may cause an SSO, and to determine the cause following the occurrence of an SSO;
- Smoke testing to identify sources of infiltration and inflow;
- Private Sewer Lateral Inspection Program (SLIP);
- Periodic inspection and preventive maintenance of lift stations; and
- Rehabilitation and replacement of sewers that are in poor condition.

The details of the City's O&M programs are:

Sewers and Structures

The City proactively cleans the majority of its sewer system every two years, and it preventively cleans sewers with a history of problems every 4, 6, or 12 months. Inverted siphons are cleaned every six months.

The City has one CCTV inspection crew to proactively inspect its wastewater collection system facilities; to investigate the causes of stoppages and SSOs; and to support the Capital Improvement Program. The City's goal is to proactively inspect all of its wastewater collection system facilities every 14 years.

The City has one sewer repair crew to correct problems identified by the CCTV or sewer cleaning crews. The City also uses outside contractors to complete repairs on an as-needed basis.

The City has a service call program to respond to customer requests for service. The City's goal is to respond to and resolve all wastewater collection system emergencies within two hours of being notified of the emergency condition. The City has an "On Duty Crew" available to provide quick response from close of work until midnight, Monday through Thursday, and it has an established on duty "Weekend Crew" available to provide quick response, from close of work until midnight on Friday, and from 7:30 a.m. to 11:30 p.m. on Saturday and Sunday. The City has "On Call" personnel to respond at all other times.

The City conducts visual inspections of its wastewater collection system facilities during significant storm events. These facilities include known hydraulic constrictions, pump stations, siphons, and creek crossings.

The City has an ongoing sewer rehabilitation and replacement program to rehabilitate or replace the portions of its wastewater collection system where conditions warrant.

Pump Stations

The City has a program of scheduled inspections and maintenance for all of the lift stations that it operates and maintains. Written site-specific standard maintenance procedures are in place for each lift station. Inspection and preventive maintenance activities are schedule on a daily, weekly, monthly, and quarterly basis. Operating logs, including trouble reports, are kept for each lift station and they are continually evaluated by City Staff to determine the work required to maintain lift station performance.

Collection System Maps

The City has a comprehensive Geographical Information System (GIS) that includes the information for its wastewater collection system assets including: gravity line segments, manholes, pumping facilities and pressure pipes (force mains). The City also has information in its GIS for its storm drainage system. The GIS information is available to appropriate City Staff.

The GIS is supported by the City's Public Works Engineering Division. The data in the GIS is periodically updated as new facilities are added and existing facilities are rehabilitated or replaced. A process exists for GIS updates and corrections that are initiated by the wastewater collection system maintenance staff.

Work Management

The City's CarteGraph Work Order Management System is used to plan and track the operations and maintenance activities associated with its wastewater collection system. The City uses GIS for the location of its wastewater collection system facilities and to analyze its operating data. The City maintains information on service calls, blockages, and overflows. The data is analyzed periodically and the results of the analysis are used to modify the City's approach to operations and maintenance.

The City prepares and submits calendar year reports regarding the number of overflows to the RWQCB. The City also prepares fiscal year summaries for consideration during its budgeting process.

Structural Deficiencies/CIP

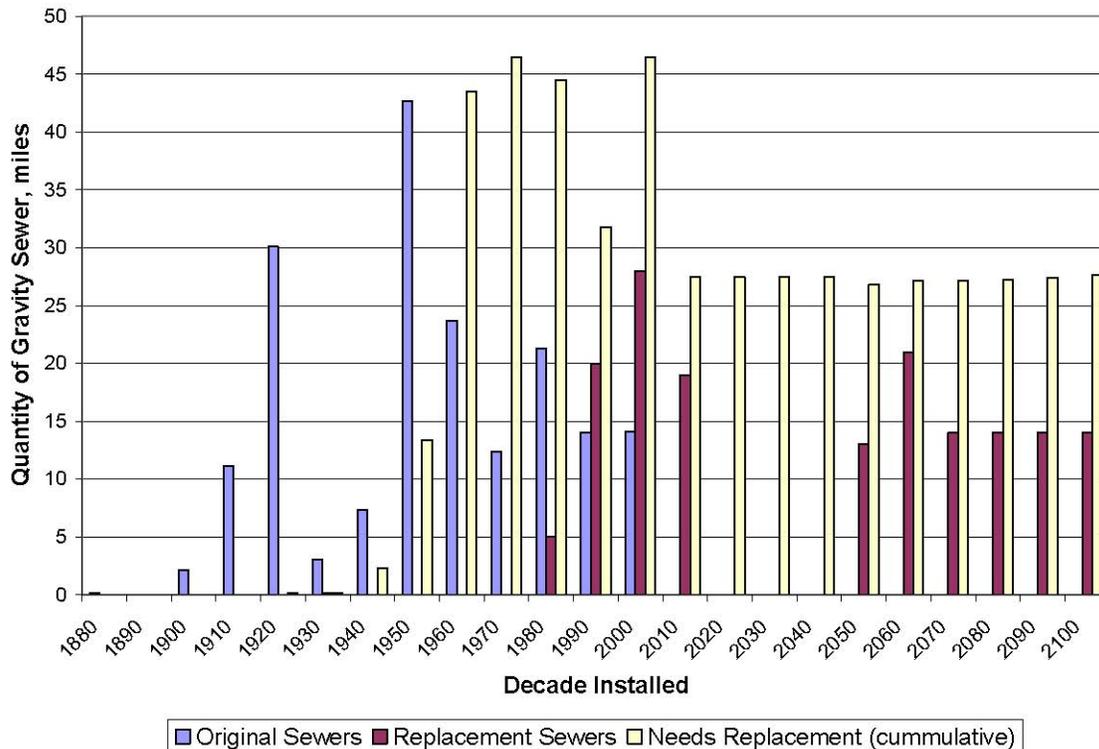
The wastewater collection system staff maintains a list of known structural deficiencies. This list is maintained in priority order. High priority structural deficiencies are repaired as soon as possible by the City's sewer repair crew or by an outside contractor. The current list of line segments requiring repair, rehabilitation, or replacement is included in Appendix IV-A.

The City has one CCTV inspection crew. The results of the CCTV inspection are used to prioritize repairs and the rehabilitation/replacement projects.

The City's goal is to rehabilitate or replace an average of 1% of its wastewater collection system per year. The City's approach is to initiate rehabilitation and replacement projects every other year that account for 2% of the wastewater collection system length or approximately 5 miles. The budget for this work is \$1,500,000 (budgeted in the Capital Improvement Program at \$750,000 per year).

The City's rehabilitation and replacement goals for its gravity sewer system were evaluated using a Nessie Curve approach. The Nessie Curve is shown in Figure IV-1. The results of the evaluation suggest that rehabilitating or replacing approximately 1.3 miles per year should be adequate in the long term and that the City's annual goal of 1% per year is reasonable in the near term.

Figure IV-1: Nessie Curve Analysis



Training

The City uses a combination of in-house classes; on the job training; and conferences, seminars, and other training opportunities to train its wastewater collection system staff.

The City requires its wastewater collection system employees to be certified in Collection System Maintenance by the California Water Environment Association. Currently 14 of its employees are certified. These employees are required to demonstrate that they have participated in twelve hours of training every two years in order to renew their certificates.

The City's contract language requires contractors working in the wastewater collection system to provide safety training for their employees.

Equipment and Replacement Parts

The City's wastewater collection system equipment list is included in Appendix IV-B.

The City is developing a Replacement Parts List with critical replacement parts highlighted. It is also developing a Replacement Parts Inventory procedure. The list and the procedure will be added as Appendix IV-C when they are complete.

FOG

The City does not intend to develop a public outreach plan to promote the disposal of grease and fats at this time. The City's approach has been to clean its wastewater collection system to minimize blockages and SSOs due to grease. The results (number of grease-related SSOs) demonstrate that the City's approach is appropriate for its wastewater collection system.

The City does not intend to develop a plan to evaluate alternative methods for the disposal of grease at this time. Grease is being transported to the treatment plant in the sewers or the sewer cleaning equipment.

Response to Private Property Overflows

The City has the authority to issue correction notices to property owners that have overflows from their lateral cleanout. In the event that the property owner fails to act, the City has the authority to shut off their water until the problem with the lateral is corrected. All private laterals which fail to operate properly are added to the Private Sewer Lateral Inspection Program (SLIP) mandatory inspection.

Fiscal Resources

The City's current sewer service charge for residential connections is \$10.29 per month and \$1.78 per hundred cubic feet (hcf) of water use up to 10 hcf. The maximum monthly bill is \$28.09. This covers the cost of collection and treatment.

The FY 07 budget revenue for the wastewater system is \$13.1 million and the budget expenses are \$12.7 million (\$11.6 million operations and \$1.1 million capital). The FY 07 operating budget for the wastewater collection system is \$2.56 million.

The City's resources that are dedicated to the Capital Improvement Program for the wastewater collection system are shown on Table IV-2.

Staffing

The authorized staffing for the City's wastewater collection system is 17.65 employees. The authorized staffing for the City's pump stations is three employees. The workload and staffing estimate for the wastewater collection system is shown on Table IV-3. The workload and staffing for the pump stations is shown on Table IV-4. The authorized staffing is adequate to meet the wastewater collection system and pump station O&M workload.

The organization for the wastewater collection system division is shown in Section II Organization.

Table IV-2: Wastewater Collection System Projects in Capital Improvement Program

Fiscal Year	Project Name	Project Description	Budget
FY08	Sewer Main Improvement Project	Rehabilitation/replacement	\$750,000
	Purchase Sewer Cleaning Vehicle	New Equipment	\$340,000
	Lift Station Capital Maintenance Program	Rehabilitation/replacement	\$110,000
FY 09	Sewer Main Improvement Project	Rehabilitation/replacement	\$750,000
FY 10	Sewer Main Improvement Project	Rehabilitation/replacement	\$750,000
FY 11	Sewer Main Improvement Project	Rehabilitation/replacement	\$750,000
FY 12	Sewer Main Improvement Project	Rehabilitation/replacement	\$750,000

Table IV-3: Wastewater Collection System Workload and Staffing Estimate

	Quantity, miles	Number/ year	Unit time, labor hours	Annual LOE, labor hours	FTE*
Sewer Cleaning					
▪ Service Calls (days)	N/A	60	4	240	0.2
▪ Priority Cleaning- 4 month (3X)	19	3	32	1,834	1.3
▪ Priority Cleaning – 6 month (2X)	13	2	32	826	0.6
▪ Proactive Cleaning- 24 month	245	0.5	32	3,920	2.8
Sewer Repairs	N/A	140	40	5,600	4.0
CCTV Inspection	50	1	60	3,000	2.1
Smoke Testing	50	1	100	5,000	3.6
Miscellaneous / Emergency				1,400	1.0
Supervision / Record Keeping				2,800	2.0
Totals				24,620	17.6
* FTEs are calculated using 1,400 production hours per FTE per year.					

Table IV-4: Pump Station Workload and Staffing Estimate

	Number of Facilities	Number per year	Unit time, labor hours	Annual LOE, labor hours	FTE*
Operational Inspections	9	156	1.5	2,574	1.8
Preventive Maintenance	9	2	60	1,320	0.9
Force Main Inspections/ Maintenance	9	4	2	88	0.1
Totals				3,982	2.8
* FTEs are calculated using 1,400 production hours per FTE per year.					

Section V. Sewer Standard Design and Performance Provisions

A. Introduction

The City's design standards are used by the City's Public Works Engineering Division which is responsible for the design of the majority of new and rehabilitated sewer system facilities. The standards are communicated to consulting engineers and developers at the start of a project when outside designers are employed.

The City's construction standards are addressed in its specifications for sewer construction projects, project-specific amendments to the specifications, and Standard Specifications for Public Works Construction (Greenbook).

Some sewer facilities may require telemetry equipment to be incorporated into the design of the facilities. The Wastewater Department will provide specific information for incorporating the telemetry communication necessary for treatment facilities, sewer lift stations, and metering stations.

B. Regulatory Requirements for the Design and Performance Provisions Element

NPDES Permit Requirement

- A. Develop and/or adopt design and construction standards and specifications for the installation of new sewer systems, pump stations, and other appurtenances, and for rehabilitation and repair of existing sewer systems; and
- B. Develop and/or adopt procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

SWRCB Requirement

- 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.

C. Design and Performance Provisions

1. Design Flow Standards

The City's Wastewater Collection System Design Flow Standards are based on the design and peak flows. Table V-1 includes standard design flows for land use factors. These flows shall be adjusted for peaking factors for design flow capacity of new and existing sewer infrastructure as shown on Table V-2 or Equation V-2. When sewer modeling results are complete, these results may adjust the demand and peak flows accordingly and may include variations by location.

Residential peaking factor (PF) will be determined from the ratio shown on Table V-2.

Peak daily flows for all other uses shall be based on Equation V-1.

Design flow shall be calculated based on Equation V-2.

Table V-1: Unit Flow Factors of Average Daily Sewer Demands

Land Use Category	Unit	Unit Flow Factor (gpd/unit)
Residential, Single Family	Dwelling Unit	280
Residential, Multiple Family	Dwelling Unit	200
Commercial	Acre	1,750
Commercial, High Density ¹	TBD	Provide water use data and fixture information
Industrial	TBD	Provide water use data and fixture information
School	Student	20
Church	Acre	1,000
Park and Open Space	Acre	170
Note:		
1. High density commercial factor is based on 100 gpd/1,000 square feet of office space and 44,000 square feet per acre.		

Table V-2: Residential Peaking Factor Ratio

Population	Ratio of Peak to Average Flow
Less than 500	3.50
500 to 1,000	2.75
1,000 to 5,000	2.50
Greater than 5,000	2.00

Equation V-1: Peak Daily Flow Equation for Non-Residential Areas

$$Q_p = 1.84 Q_a^{.92}$$

Where Q_p = Peak Flow in cfs and Q_a = Average Flow in cfs

Equation V-2: Design Flow Calculation

Design Flow	=	Average Daily Flow (Table V-1)	x	Peak Flow (Table V-2 or Equation V-1)
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2. **New Gravity Sewer Mains**

Capacity calculation – The capacity of gravity sewers will be determined using Manning’s pipe friction formula for peak flow and the following factors:

- a Pipe roughness coefficient is $n = 0.013$.
- a Maximum allowable depth of flow in main sewers (8-12 inches in diameter) is $d/D = 0.50$.
- a Maximum allowable depth of flow in trunk sewers (>12 inches in diameter) is $d/D = 0.75$.

Minimum and maximum design flows, minimum pipe size, and minimum grade (slope) are shown on Table V-3. Table V-3 will also be used as a guideline for calculating impact of new sewer demands on existing infrastructures. Additional analysis may be required if slopes vary significantly.

Table V-3: Minimum Design Flows, Pipe Size, Grade for Proposed Sewer Additions and Guideline for Calculating Impact of New Sewer Demands on Existing Infrastructure

Sewer Type	Minimum Design Flow, gpd	Maximum Design Flow, gpd	Pipe Size, inches	Minimum Grade, feet per foot
Main	0	322,999	8	0.0034
	323,000	729,999	10	0.0027
	730,000	999,999	12	0.0020
Trunk	1,000,000	1,580,000	15	0.0015
	1,581,000	2,280,000	18	0.0012
	2,281,000	3,100,999	21	0.00095
	3,101,000	4,050,999	24	0.00080
	4,051,000	5,140,999	27	0.00070
	5,141,000	6,340,999	30	0.00060
	6,341,000	7,670,999	33	0.00055
	7,671,000	9,130,999	36	0.00050
Note: The specific requirements for design flows that exceed 9 mgd will be determined by the City Engineer.				

Determination of public vs. private sewer – The City Public Works Engineering staff shall review all development proposals that impact City right-of-way and infrastructure. If an applicant is proposing a new sewer connection, the City will determine the applicability of the connection for future connections, existing capacities, and maintenance of such facilities. Based on reviewing these factors, the City will determine whether any proposal shall be public or private. Private vs. public sewer main requirements are described in the context of this section.

Velocity – The minimum acceptable velocity will be two feet per second.

Pipe diameter – The minimum pipe size for newly constructed main sewers shall be eight inches. Downstream pipe segments shall not be smaller than the next upstream line segment in order to prevent hydraulic constrictions that may cause debris to accumulate. Exceptions require the approval of the City Engineer.

Maximum grade (slope) and changes in grade (delta slope) – The maximum grade (slope) or changes in slope shall not exceed two percent without more detailed review. To avoid creating odor or other problems, the designer shall demonstrate that the proposed design will not result in a hydraulic jump for proposed grades or changes in grade exceeding two percent. Approval of the City Engineer is required for any grade that exceeds two percent. Additional design and construction requirements may apply.

Pipe materials – Acceptable pipe materials for buried main and trunk sewers 24 inches in diameter and smaller are shown in Table V-4. Materials for other applications require the approval of the City Engineer.

Table V-4: Acceptable Pipe Materials for New Gravity Sewers

Material	Designation	Standard
High Density Polyethylene (HDPE)	EHMW PE 3408 HDPE	ASTM D3350
Polyvinylchloride Pipe (PVC)	SDR-35, C-900 CL200	ASTM D3033 or D3034
Vitrified Clay Pipe (VCP)	Extra Strength	ASTM C700

Pipe bends – No pipe bends shall be permitted, unless otherwise approved by the City Engineer and Wastewater System Manager.

Pipe clearance – The minimum vertical clearance between main and trunk sewers and other buried utilities shall be per City Standard Details 7-003.1, 7.003.1, and 7-040.0. Variations from these criteria require approval of the City Engineer.

Pipe cover – The minimum cover for main and trunk sewers will be four feet in roadways (measured from road sub-grade to top of pipe) and three

feet in easements and other right-of-ways (measured from finished grade to top of pipe) where applicable. The maximum cover (depth of burial) will be 20 feet. Pipe covers that do not meet the minimum or maximum cover require approval of the City Engineer. Special cases may have a more shallow depth but will require City approval of pipe upgrade or encasement.

Pipe curvature – Pipe curvature shall be implemented to reduce unnecessary manholes, but shall comply with manufacturer's recommendations.

Pipe joint deflection – The deflection between any two successive joints will not exceed 80% of the maximum deflection recommended in writing by the pipe manufacturer. The minimum pipe length used to construct short radius curves will be two feet.

Private sewers – All private sewer systems shall be governed by and permitted through the Building Department.

Private sewers / Public right-of-way – Any private sewer main in the public right-of-way requires City approval and an encroachment permit. A separate application is required for encroachment permits. In the event that an existing private sewer system is proposed to be converted to a public system, the entire system must be upgraded to meet the public standards as presented in this Design and Performance Provision or as amended.

New public facilities are encouraged to be installed in the public right-of-way and may only be installed on private property with special conditions as identified in City review. All sewers, to the maximum extent practicable, will be installed in the public right-of-way as a public facility and built to City standards.

Private sewer / Private property – Private sewer to be offered as a future public sewer shall be built to City standards and offered on a map or separate easement document. The City may opt to defer acceptance of such facility to a later date.

All sewers proposed to be installed other than in the public right-of-way must be approved by the Land Development Engineer, Water Design Engineer, and Wastewater Collection System Superintendent and will require a minimum 10 foot wide public sewer easement, if the City desires to accept the facility as a public sewer main. Additional easement width may be required by the City Engineer. Such easement shall be shown as a separate instrument or on a subdivision map, if applicable. Where water and sewer mains are in the same easement, the minimum easement shall be 30 feet wide. All easements shall be easily accessible to City's maintenance equipment. If any obstruction restricts the ability for maintenance of a public facility, the owner may be required to relocate the public facility.

Special features and unusual designs – Any situation that varies from the standard conditions outlined above will require additional or specialized design features to ensure reliability, access for maintenance, and economical operation and maintenance. These unusual design conditions require approval from the City Engineer.

3. *Manholes and Cleanouts*

Cleanouts – Cleanouts may be installed for access to sewer laterals and mains less than eight inches in diameter and per approval of the City.

Drop – Minimum drop through manholes shall be 0.20 feet.

Sewer drop connections – Sewer mains and laterals which are introduced to a sewer manhole at inverts higher than +/- 2 feet elevation above manhole invert, shall be installed per City Standard Detail and as an inside drop where feasible.

Numbering – All manholes shall be numbered on the plans and on the sewer calculations.

Required – Manholes shall be required:

- a. At all changes of slope.
- b. At all changes of direction.
- c. At all intersections of mains – match soffits.
- d. At all ends of lines and beginning of lines.

Spacing and location – Manhole spacing shall be 500 feet maximum or as approved by the City Engineer or Wastewater System Manager. For all industrial uses, an inspection manhole shall be provided immediately behind the property line, for all residential uses, a cleanout shall be provided within two feet of the property line.

4. *Laterals*

Backflow requirements – Any lot with a finish pad elevation lower than the top of the finish street grade where the sewer main is located and services this lot, must install a sewer back flow preventer valve on private property. The property owner shall be responsible for the installation and maintenance of the sewer backflow preventer. The backflow preventer shall be shown on the precise grading and improvement plans.

Inspection manhole – An inspection manhole shall be provided at the property line for industrial projects.

Location – Installation of laterals shall be in accordance with City Standard Detail 5-004.0. Standard location is from the center of lot to five feet above downstream lot line (shown on as-built plans). Services shall not be located in the driveway. Sewer laterals six inches and larger, shall be connected to an existing manhole or a new manhole shall be constructed.

Separation between sewer and water laterals shall be per City Standard Detail 7-003.0.

It is recommended that each parcel, lot, or condominium unit have a separate connection to the public sewer main. If the sewer lateral is not a separate connection, a covenant, condition and restriction recorded on the title of the properties for future private maintenance responsibilities may be conditioned by the City.

Plans – All laterals are to be shown on improvements plans by stationing or a lateral table. On “as-built” plans all laterals shall be shown in plan view to scale and dimensioned from the nearest downstream manhole.

Size – Minimum pipe size for laterals is four inches.

5. *New Pump Stations and Force Mains*

The City's goal is to minimize the number of pump stations in its wastewater collection system. Pump stations are to be avoided wherever practicable. Pump stations are to be consolidated wherever practicable. All pump station designs require approval from the City Engineer.

6. *Rehabilitated Gravity Sewers*

The design of rehabilitated gravity sewers will follow the standards in the City's Standard Specifications. The design flows and capacity of the proposed rehabilitation method will be verified where the rehabilitation methods will reduce the diameter of the sewer.

7. *Inspection and Testing Standards*

The City's Wastewater Collection System Standards for Construction, Inspection and Testing are:

New Gravity Sewers

Standard Specifications – The Standard Specifications for Public Works Construction, 2003 Edition, as modified by the City's Standard Specifications, will be used as the basis for the construction of gravity sewers.

Inspection during construction – All new gravity sewers will be periodically inspected during construction to ensure that the sewer is constructed using the specified materials and methods. Specific approvals will be required by the inspector prior to backfilling the trench, prior to paving, and prior to acceptance by the City. The contractor will be required to provide survey controls so that the inspector can verify line and grade (slope). Unusual conditions and special features will be recorded for future reference.

Leakage – All new gravity sewers will be tested to verify that they have been properly constructed. Sewers between 8 and 16 inches in diameter will be tested following Standard Specifications for Public Works Construction, Section 306-1.4.4 Air Pressure Test. Sewers larger than 16 inches will be hydrostatically tested following Standard Specifications for Public Works Construction, Section 306-1.4.5 Water Pressure Test. Gravity sewers that fail the test shall be repaired and retested.

Deflection – All flexible pipe will be tested for deflection following backfill and prior to paving following Standard Specifications for Public Works Construction, Section 306-1.2.12 Field Inspection for Plastic Pipe and Fittings. Gravity sewers that fail the test shall be repaired and retested. "Re-rounding" is not allowed.

CCTV inspection – All new gravity sewers and rehabilitated sewers will be inspected using a closed circuit television to verify that the pipe is free from defects/damage, that the joints have been correctly constructed, and that the sewer is free from sags that will cause future operational problems. Gravity sewer shall be cleaned prior to inspection and shall be flushed with water so that defects can be identified. Defects shall be recorded following

the NASSCO standards. Sags that exceed one inch in depth shall be repaired.

Warranty inspection – All new gravity sewers will be inspected using CCTV prior to the end of the warranty period to ensure that there are no latent defects. Repairs shall be completed at Contractor’s expense.

New Manholes

Inspection during construction – All new manholes will be periodically inspected during construction to ensure that the sewer is constructed using the specified materials and methods. Unusual conditions and special features will be recorded for future reference.

Leakage – All new manholes will be vacuum tested to verify that the joints, connections, and frame/cover are tight. The vacuum test will follow ASTM C1244. The test will be conducted at a 10 inch Hg vacuum. The vacuum loss shall be less than one inch Hg for the time shown in Table V-4.

Table V-5: Minimum Manhole Vacuum Test Time in Seconds

Depth / Diameter	4 Foot Diameter	5 Foot Diameter	6 Foot Diameter
Depth < 15 feet	50	65	80
Depth = 15 feet or greater	70	105	130

Manholes that fail the vacuum test shall be repaired using materials and methods approved by the City Engineer and retested.

New and Rehabilitated Pump Stations

Inspection during construction – All new and rehabilitated pump stations will be periodically inspected during construction to ensure that they are constructed using the specified materials and methods. Unusual conditions and special features will be recorded for future reference.

Functional test – All systems in new and rehabilitated pump stations will be tested to ensure they function as intended.

Performance test – All new and rehabilitated pump stations will be required to pass an extended performance test to ensure that they are capable of reliably meeting the design performance for a period of at least 120 hours of continuous operation without failure or alarms. The results of these performance tests will be recorded for use as a basis for evaluating future performance evaluations.

Section VI. Overflow Emergency Response Plan

A. Regulatory Requirements for Overflow Emergency Response Plan Element

NPDES Permit Requirement

The Permittee shall develop and implement an Overflow Emergency Response Plan that identifies measures to protect public health and the environment. At a minimum, this plan should provide for the following actions.

- A. Ensure proper notification procedures so that the primary responders are informed of all overflows in a timely manner (to the greatest extent possible).
- B. Ensure that all overflows are appropriately responded to, including ensuring that reports of overflows are immediately dispatched to appropriate personnel for investigation and appropriate response.
- C. Ensure immediate notification of health agencies and other impacted entities (e.g. water suppliers) of all overflows. The plan should provide for the reporting of overflows to the Regional Board, Santa Barbara County Health Department, and the State Office of Emergency Services (OES) in accordance with each agency's policy. The WCSMP should identify the public health agency and other officials who will receive immediate notification.
- D. Ensure that appropriate staff and contractor personnel are aware of the plan, follow it, and are appropriately trained.
- E. Provide emergency operations, such as traffic and crowd control, and other necessary emergency response.
- F. Take all reasonable steps to contain sewage, prevent sewage discharges to surface waters, and minimize or correct any adverse impact on the environment resulting from the overflows including such accelerated and additional monitoring as may be necessary to determine the nature and impact of the discharge.
- G. Develop and implement a plan for the use of portable aerators where complete recovery of the wastewater collection system overflows is not practicable and where severe oxygen depletion in existing surface waters is expected.
- H. Develop and implement a plan to respond in a timely manner to spills and other emergencies. Collection system staff should be able to respond to a sewage spills in less than an hour from the first call. The Permittee should be capable of meeting this response time day or night, every day of the week. The Permittee must own or have ready access to spill and emergency response equipment such as vacuum

trucks, hydroflushers, pumps, temporary bypass hoses, and portable generators of adequate number and capacity to operate the pump stations.

- I. Describe offsite and onsite alarm systems, response times, and methods of detecting spills from the system.

GWDR Requirement

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.

B. OERP Goals

The City's goals with respect to responding to SSOs are:

- Respond quickly to minimize the volume of the SSO;
- Eliminate the cause of the SSO;
- Contain the spilled wastewater to the extent feasible;
- Minimize public contact with the spilled wastewater;
- Mitigate the impact of the SSO;

- Determine the root cause of the SSO; and
- Meet the regulatory reporting requirements.

C. SSO Detection

The processes that are employed to notify the City of the occurrence of an SSO include: observation by the public, receipt of an alarm, or observation by City Staff during the normal course of their work.

1. Public Observation

Public observation is the most common way that the City is notified of blockages, spills, and private sewage system failures. Directions for reporting sewer spills and backups are included on the City's website: www.santabarbaraca.gov. The City contact information for reporting sewer system events is included in the Telephone Directory.

Normal Work Hours

The City's Wastewater Collection staff's regular working hours are Monday through Friday from 7:00 a.m. to 3:30 p.m., except holidays. The public can call the main telephone number, (805) 564-5413, during regular work hours.

When a report of a sewer spill or backup is received, the Office Specialist takes the information and communicates it to the field crew by radio and to the Crew Lead and Supervisor by cell phone.

After Hours

The City's after-hours message directs callers to call the after-hours answering service to report a spill or sewer backup at (805) 963-4286. The caller is asked to leave their name, address, telephone number, and a description of the problem. The answering service then calls the On Call Emergency Service Worker (ESW) by radio or cell phone. The call is escalated to the Supervisor or Superintendent in the event that the On Call personnel have not been contacted within ten minutes.

2. Receipt of Alarm

Seven of the City's nine pump stations are connected to a SCADA system. Alarms are relayed to the central SCADA located at the El Estero Wastewater Treatment Plant (WWTP). The remaining two small pump stations each have on-site high wet well level warning lights on top of control panel with instructions to call the City in the event of an alarm condition.

The WWTP operator notifies the plant maintenance operators (working hours) or the ESW (after hours) to respond to the pump station alarms. Control 14 (after hours) answering service also notifies the ESW workers for any after hours calls to lift stations.

3. *City Staff Observation*

City Staff conducts periodic inspections of its sewer system facilities as part of their routine preventive maintenance program. Any problems noted with the sewer system facilities are reported and appropriate crews are dispatched to any emergency situations and work orders are issued to correct non-emergency conditions.

D. *SSO Response Procedures*

Sewer calls are considered high priority calls that demand a prompt response to the location of the problem. The City's goal is to respond to sewer system events within 15 minutes during normal working hours and within 30 minutes on after hours calls. The response procedure flow chart is shown on Figure VII-1.

1. *First Responder Priorities*

The first responder's priorities are:

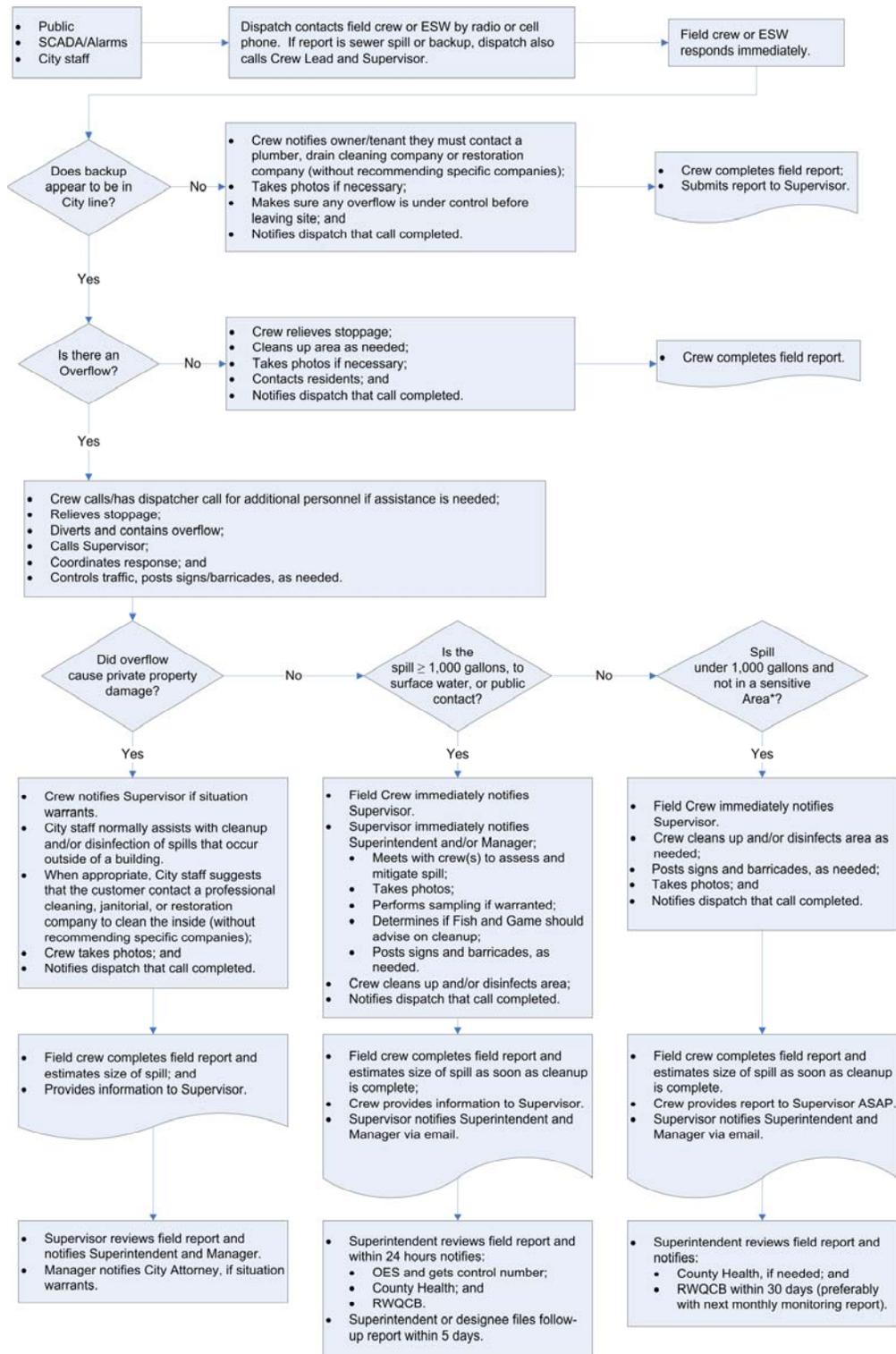
- To follow safe work practices.
- To respond promptly with the appropriate equipment.
- To contain the spill wherever feasible.
- To restore the flow as soon as practicable.
- To minimize public access to and/or contact with the spilled sewage.
- To return the spilled sewage to the sewer system.
- To restore the area to its original condition (or as close as possible).
- To limit environmental impacts that may be associated with the response and cleanup activities.

2. *Safety*

The first responder is responsible for following safety procedures on all jobs. Special safety precautions must be observed when performing sewer work.

There may be times when it is necessary to call in non-Wastewater Collection personnel to assist with a sewer system event. They may not be familiar with potential safety hazards peculiar to sewer work. In such cases it is appropriate to take the time to discuss safety issues, explain the order of work, and check safety equipment before starting the job.

Figure VI-1: Response Procedures Flow Chart



3. *Initial Response*

The first responder must respond to the reported location/lift station site and visually check for potential sewer stoppages or overflows. All sewer system calls require a response to the reported location of the event (including lift station alarms, sewer stoppages, sewer overflows, sewer odors and loose or noisy manhole covers). Sewer system calls should never be handled without an on-site response.

The first responder should:

- Note arrival time, document conditions with photographs, and contact caller if time permits.
- Verify the existence of a sewer system spill or backup.
- Identify and assess the affected area and extent of spill.
- If additional help is needed, call a member of the Wastewater Collection Section or have Dispatch call. See Appendix VII-A for Wastewater Collection personnel contact information.
- Notify Supervisor if the spill appears to be large, in a sensitive area, or there is doubt regarding the extent, impact, or how to proceed.
- Decide whether to proceed with clearing the blockage to restore the flow or to initiate containment measures. The guidance for this decision is:
 - Small spills – proceed with clearing the blockage.
 - Moderate or large spills where containment is anticipated to be simple – proceed with the containment measures.
 - Moderate or large spills where containment is anticipated to be difficult – proceed with clearing the blockage. However, call for additional assistance after 15 minutes without clearing the blockage and implement containment measures.

4. *Initiate Spill Containment Measures*

The first responder should attempt to contain the spilled sewage using the following steps.

- Determine the immediate destination of the overflowing sewage.
- Review sewer atlas maps for possible temporary upstream flow diversion bypassing.
- Plug storm drains using air plugs, sandbags, and/or plastic to contain the spill, whenever appropriate.
- Divert spill by building a small berm to change direction of flow back to sewer. Use boom on duty truck, dirt, and/or sandbags.

- Divert spill by pumping around overflow and return to sewer, if appropriate.
- Dike/dam (or sandbag) spill by building a temporary berm to collect spill.
- If overflowing sewage has made contact with the storm drainage system, attempt to contain the spilled sewage by plugging the next downstream storm drainage inlet.

E. Recovery and Cleanup

The recovery and cleanup phase begins when the flow has been restored and the overflow of sewage has been stopped. The SSO recovery and cleanup procedures are:

1. Estimation of the Volume of Spilled Sewage

Use the methods outlined in Appendix VII-D to estimate the volume of the spilled sewage. Wherever possible, document the estimate with photos of the SSO site before the recovery operation.

2. Recovery of Spilled Sewage

Wash, pump, or vacuum the spilled sewage and discharge it back into the sanitary sewer system, if possible.

If the spilled sewage cannot be washed back into the sanitary sewer system (e.g. it is trapped in a low area or storm drain), then vacuum spilled sewage into the combination cleaner or pump it to a sanitary sewer manhole.

3. Cleanup and Disinfection

Cleanup and disinfection procedures should be implemented to reduce the potential for human health issues and adverse environmental impacts that are associated with an SSO event. The procedures described are for dry weather conditions and should be modified as required for wet weather conditions.

In the event that an overflow occurs at night, the location should also be inspected the following day. The field crew should look for any signs of sewage solids and sewage-related material that may warrant additional cleanup activities.

Hard Surface Areas

Collect all signs of sewage solids and sewage-related material either by hand or with the use of rakes and brooms.

Wash down the affected area with clean water until the water runs clear. Take reasonable steps to contain and vacuum up the wash water.

Disinfect all areas that were contaminated from the overflow using the disinfectant solution on the duty response truck or at the Corporation Yard. Apply minimal amounts of the disinfectant solution using a hand sprayer. Only after receipt of specific instructions from Supervisor or Superintendent should significantly higher dosages of disinfectant be administered. Document the disinfectant volume and application methods that were used.

Note: No treatment of chlorine, bleach (sodium hypochlorite) disinfectant, lime (calcium oxide) or other oxidants shall be applied without the receipt of specific instructions from the proper authority as it has been determined that it could be detrimental to the environment.

Allow area to dry. Repeat the process if additional cleaning is required.

Landscaped and Unimproved Natural Vegetation

Collect all signs of sewage solids and sewage-related material either by hand or with the use of rakes and brooms.

Wash down the affected area with clean water until the water is clear. The flushing volume should be approximately three times the estimated volume of the spill.

Either contain or vacuum up the wash water so that none is released. Take reasonable steps to contain and vacuum up any ponding water.

Allow the area to dry. Repeat the process if additional cleaning is required.

Creeks, Gullies, and Natural Waterways

The Department of Fish and Game should be notified (via Dispatch or Supervisor) in the event an SSO impacts any creeks, gullies, or natural waterways. Fish and Game will provide the professional guidance needed to effectively clean up spills that occur in these sensitive environments.

Cleanup should proceed quickly in order to minimize negative impact. Sewage causes depletion of dissolved oxygen which will kill aquatic life. SSOs that result in a discharge to streams supporting aquatic habitat will be evaluated to determine whether additional aeration is needed.

Any water that is used in the cleanup should be de-chlorinated prior to use (chlorine compounds are toxic to aquatic life).

F. Public Notification

The public that may be at risk should be warned when contact with sewage or sewage-contaminated water from an SSO may cause illness. Creeks, streams, and beaches that have been contaminated as a result of an SSO

should be posted at visible access locations until the risk of contamination has subsided to acceptable background levels. The warning signs should be checked every day to ensure that they are still in place.

Posting signs and placing barricades may be necessary to keep vehicles and pedestrians away from spilled sewage. The City and the County Environmental Services Department have responsibility for determining when to post notices of sewage contamination. Posting should be done at the direction of the Supervisor, Superintendent, or Manager. In any event where public contact is possible, signage warning of a sewer overflow occurrence must be posted for a minimum of 48 hours. If necessary, safety cones, caution tape, or temporary fencing should be used to block access to the contaminated water area. Do not remove these until directed. A sample warning sign is included as Appendix VII-H.

Major spills may warrant broader public notice. Local media should be notified through the City's Public Information Office when significant areas may have been contaminated by sewage. The Public Information Office will maintain the contact information for local media and any special interest organizations.

G. *Water Quality Sampling and Testing*

All sewage spills to surface waters must be sampled to determine impacts to surface waters and ensure adequate cleanup.

- The Laboratory will take water quality samples at each site where sewage enters surface waters. Where feasible, a multi-function portable meter will be used to collect temperature, dissolved oxygen, pH, and conductivity data at each test site. Spills to ocean waters shall be sampled for total coliform organisms, fecal coliform organisms and enterococcus at a minimum. Spills to fresh waters shall be sampled at a minimum for fecal coliform organisms.
- Wastewater collection system personnel may need to assist the Laboratory in taking samples in situations where there is difficult terrain, inclement weather, heavy equipment and/or safety equipment is needed to access the area, or as the situation warrants.
- The water quality samples should be collected from upstream of the spill, from the spill area, and downstream of the spill in flowing water (e.g. creeks). The water quality samples should be collected near the point of entry of the spilled sewage and every 100 feet along the shore on impoundments (e.g. ponds). Follow the Laboratory's instructions for the handling of samples.
- The City's Laboratory will analyze the results to determine the nature and impact of the discharge. Additional samples will be taken as necessary to determine when posting of warning signs can be discontinued.

- The results of the water quality sampling will be kept on site.
- If necessary, the information collected during the site assessment will be evaluated to formulate an ongoing spill monitoring/sampling plan.

H. SSO Investigation and Documentation

All SSOs should be thoroughly investigated and documented for use in managing the sewer system and meeting established reporting requirements. The procedures for investigating and documenting SSOs are:

1. SSO Documentation

The first responder will complete the Overflow Incident Field Report Form (see Appendix VII-F). The form should be filled out as soon as the field crew has completed the cleanup.

The Supervisor will review the Overflow Incident Field Report and prepare a file for each individual SSO including the following items:

- Initial service call information.
- Overflow Incident Field Report.
- Volume estimate (total volume discharged, total volume contained).
- Circumstances that caused the spill.
- Appropriate maps showing the spill location.
- Impact of the spill on public health and the environment.
- Cleanup activities and mitigation measures taken to protect public health and the environment.
- Photographs of spill location.
- RWQCB report form (see Appendix VII-I).
- Water quality sampling and test results.
- Failure analysis investigation results (see Appendix VII-G).

The Supervisor will ensure that all SSOs are documented in the Cartegraph Work Order Management System and the RWQCB Spill Reports folder.

2. Failure Analysis Investigation

The objective of the failure analysis investigation is to determine the “root cause” of the SSO and to identify corrective action(s) needed that will reduce or eliminate future potential for the SSO to recur.

The investigation should include reviewing all relevant data to determine appropriate corrective action(s) for the line segment. The investigation should include:

- Reviewing and completing the Overflow Incident Field Report Form;
- Reviewing past maintenance records;
- Reviewing available photographs;
- Conducting CCTV inspection and reviewing the video and logs to determine the condition of the line segment immediately following the SSO; and
- Interviewing staff who responded to the spill.

The product of the failure analysis investigation should be the determination of the root cause and the identification of the appropriate corrective actions.

3. *Post SSO Event Debriefing*

Every SSO event is an opportunity to thoroughly evaluate the response and reporting procedures. Each overflow event is unique with its own elements and challenges including volume, cause, location, terrain, and other parameters.

As soon as possible after major SSO events, all of the participants, from the person who received the call to the last person to leave the site, should meet to review the procedures used and to discuss what worked and where improvements could be made in responding to and mitigating future SSO events. The results of the debriefing should be recorded and tracked to ensure the action items are completed.

I. *SSO Reporting Requirements: State Waste Discharge Requirement - WDR*

Current reporting requirements for SSOs that occur in the City wastewater collection system are summarized below. Updated May 2007 per the SWRCB reporting requirements as promulgated; California Integrated Water Quality System – CIWQS.

1. *Internal SSO Reporting Procedures*

SSOs under 1,000 gallons

The Supervisor will meet with field crew(s) at the site of the SSO event to assess the situation, document the conditions with digital photos, and to direct the recovery and cleanup activities.

The field crew will fill out the Overflow Incident Field Report.

The Supervisor will review the Overflow Incident Field Report and complete the Failure Analysis Investigation Report and notify the Superintendent that it is complete.

The Superintendent will review the Overflow Incident Field Report and the Failure Analysis Investigation Report within 1 day of the date of the SSO event.

The Superintendent will complete the online reporting; California Integrated Water Quality System – CIWQS.

SSOs over 1,000 gallons or SSOs entering waters of the State, or SSOs in areas where public contact is likely

The field crew will immediately notify the Supervisor and the Supervisor will, in turn, immediately notify the Superintendent and/or the Manager.

The Supervisor will meet with field crew(s) at the site of the SSO event to assess the situation, document the conditions with digital photos, and to direct the recovery and cleanup activities.

The Supervisor will fill out the Overflow Incident Field Report and the Failure Analysis Investigation Report and notify the Superintendent and Manager that it is complete.

The Superintendent will review the Overflow Incident Field Report and the Failure Analysis Investigation Report within 1 day of the date of the SSO event.

In the event of a very large overflow or an overflow in a sensitive area, the Superintendent or Manager should contact the Public Works Director, who in turn, may notify the City Administrator.

All SSOs to City Waterfront or Harbor

The Supervisor will notify the Lead Supervisor, Manager, or Waterfront Director in the event there is an SSO that reaches the City Waterfront or Harbor.

2. *Internal Reporting Contact Information*

Water Resources Manager	Rebecca Bjork	Office: 897-1914 Cell: 729-1094
Wastewater Systems Manager	John Schoof	Office: 564-5412 Cell: 403-5959
Water Systems Manager	Cathy Taylor	Office: 564-5379 Cell: 705-4902

3. *External SSO Reporting*

Reporting Responsibility

External SSO reporting is the responsibility of the Superintendent or their designee.

Reporting Requirements

SSO's over 1,000 gallons, SSOs that enter waters of the State, and SSO's that occur where public contact is likely

Verbal Report

SSO's in this category, regardless of size, must be reported by telephone to the OES, RWQCB, and the Santa Barbara County Public Health Department as soon as notification is possible and can be provided without substantially impeding cleanup or other emergency measures, but no later than 2 hours from the time that the City has knowledge of the spill.

Unless fully contained, SSO's to storm drains that are tributary to waters of the State should be reported as discharges to waters of the State.

Written Report

In addition to notification by telephone, a written report must be submitted to the RWQCB within three days of the spill, and must include all information required by the current RWQCB Sewage Spill Report as approved by the Regional Board Executive Officer (see Appendix VII-I). Updated May 2007 per the SWRCB reporting requirements as promulgated; California Integrated Water Quality System – CIWQS.

Attachments to the report should be used as appropriate, and incidents requiring more time than the five-day period must be followed by periodic written status reports until issue closure. Photographs taken during the sewage spill incident and cleanup should be submitted in hard copy and electronic format.

SSOs under 1,000 gallons that do not enter waters of the State and do not occur where public contact is likely

Spills in this category must be reported to the RWQCB in writing within 30 days of occurrence, preferably with the next monthly monitoring report. Updated May 2007 per the SWRCB reporting requirements as promulgated; California Integrated Water Quality System – CIWQS.

All SSOs

All SSOs must be reported to the RWQCB in Monthly SSO Monitoring Reports and Annual SSO Monitoring Reports. Updated May 2007 per

the SWRCB reporting requirements as promulgated; California Integrated Water Quality System – CIWQS.

SSOs to the City Waterfront or Harbor must be reported by telephone to the National Response Center, the Coast Guard, and the Department of Fish and Game. The contact information is included in Appendix VII-B.

Monthly SSO Monitoring Reports shall include a tabular summary of all such spills, including date, time, approximate duration of the spill, approximate volume of the spill, location of the spill, whether the spill discharged to surface waters or land, a description of the response or corrective action(s) taken, and the number of spills at the location in the last three years. A complete RWQCB Sewage Spill Report Form for each spill may be submitted in lieu of the tabular summary. Updated May 2007 per the SWRCB reporting requirements as promulgated; California Integrated Water Quality System – CIWQS.

Annual SSO Monitoring Reports (Annual Summary) must be submitted by January 30 of each year, which includes a summary of all spills between January 1 and December 31 of the previous year. The annual summary should include the following information for each spill:

1. Information requested in the Sewage Spill Report Form;
2. How the spill volume was estimated and/or calculated;
3. Photograph(s) of spill, if taken;
4. Where the spill entered any storm drain inlet or surface waters;
5. Steps taken or planned to reduce, eliminate, and prevent recurrence, and a schedule of major milestones for those steps;
6. Steps taken or planned to mitigate the impact(s) of the spill, and a schedule of major milestones for those steps; and
7. Any additional correspondence and follow-up reports, as necessary, to supplement the RWQCB Sewage Spill Report Form and to provide detailed information on cause, response, adverse effects, corrective actions, preventative measures, or other information.

The annual summary should include detailed evaluations of repetitive or chronically occurring circumstances, such as problematic collection system areas or common spill causes, and the corrective actions taken to address such systematic problems.

If no sewage spills occurred in the prior calendar year, a statement certifying that no sewage spills occurred may be submitted in lieu of the annual summary.

4. *External SSO Reporting Information*

Central Coast RWQCB

Address:

895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

Contact Information:

Telephone: (805) 549-3147
FAX: (805) 543-0397

Santa Barbara County Public Health Department, Environmental Health Services

Address:

225 Camino Del Remedio
Santa Barbara, CA 93110

Contact Information:

Telephone: (805) 681-4900
FAX: (805) 681-4901

Governor's Office of Emergency Services (OES)

Contact Information:

Telephone: (800) 852-7550
(916) 262-1621

J. *Equipment*

This section provides a list of specialized equipment that is required to support this Overflow Emergency Response Plan. Specific emergency equipment that is required for each lift station is listed in Appendix VII-K.

Ammonia field test kit – An ammonia field test kit is required to determine the extent of the SSO (using ammonia as an indicator of sewage contamination).

Closed Circuit Television (CCTV) inspection unit – A portable CCTV inspection unit (or lateral inspection unit) is required to determine the root cause for all SSOs from gravity sewers. CCTV inspection services can be provided by a contractor.

Combination cleaner – A Vactor/vacuum truck is required to clear blockages in gravity sewers and to vacuum up spilled sewage and wash-down water.

Digital camera – A digital or disposable camera is required to record the conditions upon arrival, during cleanup, and upon departure.

GPS unit – A hand held GPS unit is required to determine the coordinates of spills for use in meeting RWQCB SSO reporting requirements.

Portable pumps and hoses – Portable pumps and hoses are required to pump around line failures and lift station failures and to pump spilled sewage and/or contaminated water back into the sewer system.

Hydro-vacuum truck – A truck mounted high pressure water jetter sewer cleaning truck equipped with vacuum unit.

Rodder truck – A truck-mounted power rodder is required to clean blockages in gravity sewers.

K. Training

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

1. Initial and Annual Refresher Training

All employees who may have a role in responding to, reporting, and or mitigating a sewer system overflow should receive training. All new employees should receive training before they are placed in a position where they may have to respond. Current employees should receive annual refresher training on this OERP and the procedures to be followed.

2. SSO Response Drills

Periodic training drills should be held to ensure that employees are up-to-date on the procedures, the equipment is in working order, and the required materials are readily available. The training drills should cover scenarios typically observed during sewer related emergencies (e.g. mainline blockage, mainline failure, force main failure, lift station failure, and lateral blockage). The results and the observations during the drills should be recorded and action items should be tracked to ensure completion.

3. Training Record Keeping

Records should be kept of all training that is provided in support of this plan. The records for all scheduled training courses and for each overflow emergency response training event should include date, time, place, content, name of trainer(s), and names of attendees.

L. Contractors Working On City Sewer Facilities

All contractors working on City sewer facilities will be required to develop an OERP or to follow this OERP. All contractor personnel will be required to receive training in the Contractor's OERP or this OERP. All contractor personnel will be required to follow the Contractor's OERP or this OERP in the event that they cause or observe an SSO.

Section VII. Source Control Program (FOG Control Program)

A. Introduction

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

B. Regulatory Requirements for the Source Control Element

NPDES Permit Requirement

Prepare and implement a grease, fat, and oil source control program to reduce the amount of these substances discharged to the wastewater collection system. This plan shall include the legal authority to prohibit discharges to the system and identify measures to prevent overflows caused by fat, oil, and grease blockages of sewers. The elements of an effective grease control program may include requirements to install grease removal devices (such as traps or, preferably, interceptors), design standards for the removal devices, maintenance requirements, Best Management Practices (BMP) requirements, record keeping, and reporting requirements. An effective grease control program must also include authority to inspect grease producing facilities, enforcement authorities, and sufficient staff to inspect and enforce the grease ordinance.

- A. The grease control program shall identify sections of the wastewater collection system subject to grease blockages and establish a cleaning maintenance schedule for each section, and
- B. The program shall develop and implement source control measures, for all sources of grease and fats discharged to the wastewater collection system, for each section identified in (A) above.

GWDR Requirement

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.

C. *Nature and Extent of FOG Problem*

The City experienced four FOG-related SSOs in CY 2007. As shown in Table VII-1, there were a total of nine FOG-related SSOs in the period from 2003 through 2007.

The nature and extent of the City's FOG problem was analyzed and the results of the analysis are shown on Figure VIII-1. This figure shows a compilation of grease-related spills, sewers receiving frequent maintenance, food service establishments (FSEs), and land use information.

The incidence of FOG-related SSOs is infrequent (less than one FOG-related SSO/year) and constitutes less than 1% of the SSO events over the past five years. The FOG-related SSOs that have occurred were in residential areas and are not the result of commercial discharges. The trend in FOG-related SSOs is down.

The nature and extent of the FOG problems demonstrate that the City's current preventive maintenance program is preventing FOG-related SSOs and that a FOG Source Control Program is not warranted at this time. Similarly, a FOG outreach program is not warranted at this time.

There is no indication that the City needs to investigate the need for FOG disposal facilities nor to publish a list of appropriate disposal sites for use by FOG haulers.

D. *FOG Control Program*

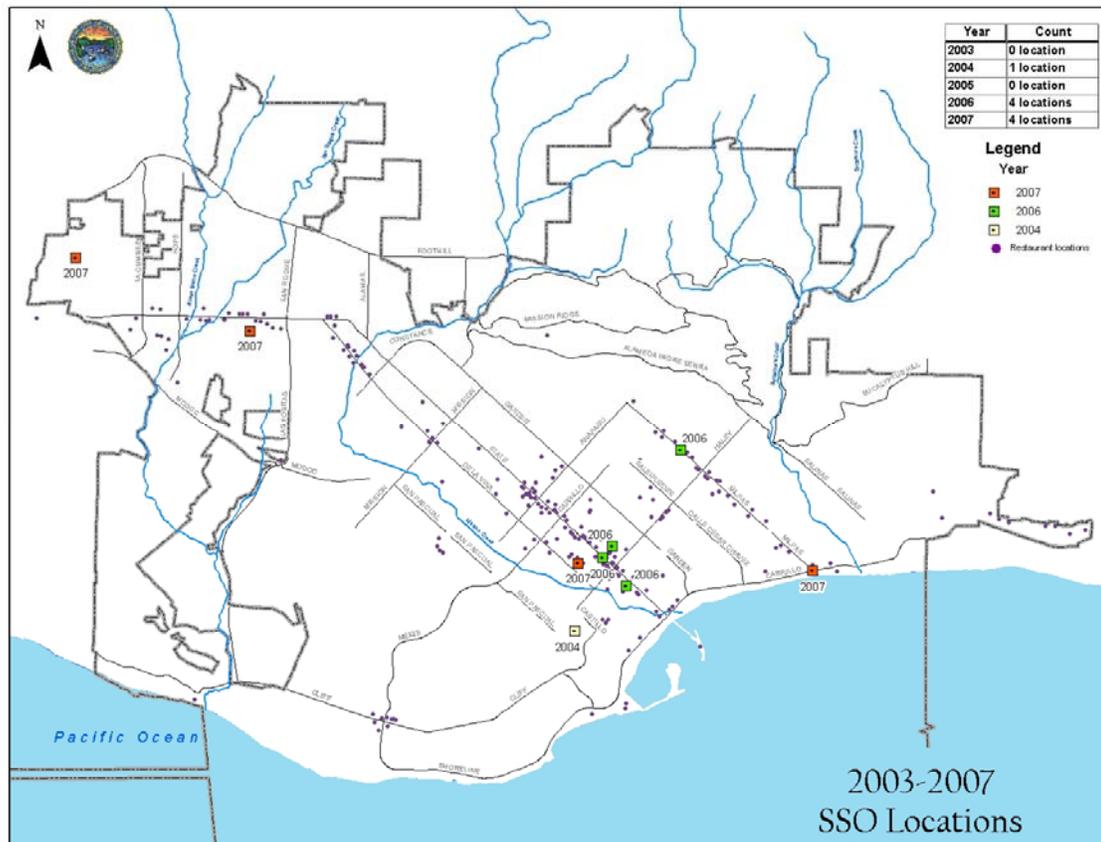
The City's FOG Control Program consists of providing preventive maintenance for its problematic gravity sewers. The City will continue to collect and analyze data related to sewer service calls, sewer cleaning activities, and SSOs to identify problematic gravity sewer lines. Problematic lines will be added to the City's Priority Maintenance list for more frequent cleaning.

The City will reevaluate the need for a FOG Source Control Program and/or public outreach program during future WCSMP updates.

Table VII-1: FOG-Related SSOs CY 2003 through CY 2007

CY	Number of FOG - Related SSOs
2003	0
2004	1
2005	0
2006	4
2007	4
Total	9

Figure VII-1: Priority Maintenance Lines and FOG-Related SSOs from CY 2003 to CY 2007



Section VIII. System Evaluation and Capacity Assurance Plan

A. Introduction

The City is implementing a hydraulic model that will be used to identify hydraulic deficiencies in the City's wastewater collection system. The projects required to provide adequate capacity will be programmed for funding and completion in the City's Capital Improvement Program.

B. Regulatory Requirements for the System Evaluation and Capacity Assurance Plan Element

NPDES Permit Requirement

Prepare and implement a capital improvement plan that will provide hydraulic capacity of key wastewater collection system elements under peak flow conditions. At a minimum, the plan must include:

- A. System Evaluation – Evaluate current capacity of the wastewater collection system including diversions of urban runoff to the collection system and those portions of the collection system which are experiencing or contributing to an overflow discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from overflows 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. Capacity Enhancement Measures – Establish a short- and long-term capital improvement program to address deficiencies including prioritization, alternatives analysis, schedules, diversions of urban runoff to the wastewater collection system during dry periods, and control of infiltration and inflow during both wet weather events and dry weather periods and
- C. Plan Updates – At a minimum the plan must be updated annually to describe any significant change in proposed actions and/or implementation schedules. The updates should include available information on the performance measures that have been implemented.

GWDR Requirement

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 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.
- (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.

C. System Evaluation and Capacity Assurance Plan (SECAP)

1. Wet Weather Performance

The City's collection system does not have an extensive wet weather capacity problem. The City's historical capacity-related SSOs are summarized on Table VIII-1. The spatial distribution of capacity-related SSOs is shown on Figure VIII-1.

Four capacity-related SSOs occurred during the five year period between January 1, 2000 and December 31, 2004. Two of these capacity-related SSOs occurred in the 700 block of Spring Street (a known capacity deficiency).

Eight capacity-related SSOs occurred on January 9 and 10, 2005. These events were the product of three back-to-back storms with saturated soils. The rainfall information for the four day period between January 7 and 10 is shown on Table VIII-2. The occurrence of three two-year return frequency storms in a four day period is unlikely and would have a combined return frequency that most likely exceeds a five-year storm. These three events have provided a practical demonstration of the capacity of the City's sewer system during peak wet weather flows and an identification/confirmation of the locations with capacity limitations.

Eight of the 14 capacity-related SSOs (or 57 %) are due to a known capacity deficiency in the sewers downstream of the 700 Block of Spring Street. The sites of the remaining capacity-related SSOs will be evaluated using the City's hydraulic model and measurement/observation of actual flow conditions during peak flow events.

It is also important to note that two significant storm events occurred during the City's flow monitoring study in 2002 and 2003. Storm No. 1, which occurred on December 19, 2002 (8-year return interval, 2-hour duration), did not cause any capacity-related SSOs, and Storm No. 4, which occurred on March 14, 2003 (15-year return interval, 12-hour duration), caused two capacity-related SSOs.

Table VIII-1: Capacity-Related SSOs, CY 2000 to CY 2005

SSO ID	Date	SSO Location	Estimated Volume, gallons
2000-2	2/23/2000	Quarantina Street and Cota Street	3,000
2003-2	3/15/2003	Harbor Way Marina	2,500
2003-3	3/15/2003	700 Block, Spring Street	6,000
2004-2	2/25/2004	700 Block, Spring Street	3,600
2005-1	1/9/2005	700 Block, Spring Street	127,500
2005-2	1/9/2005	Spring Street and Ortega Street	39,000
2005-4	1/9/2005	1000 Garcia Road	1,500
2005-5	1/10/2005	De La Vina Street and Vernon Road	14,700
2005-6	1/10/2005	Alamar Avenue and Chapala Street	600
2005-7	1/10/2005	300 Block, East Ortega Street	300
2005-8	1/10/2005	700 Block, Laguna Street	1,500
2005-9	1/10/2005	Harbor Way Marina	15,000
2005-11	2/20/2005	700 Block, Spring Street	24,000
2005-13	3/22/2005	700 Block, Spring Street	5,000

Figure VIII-1: Spatial Distribution of Capacity-Related SSOs

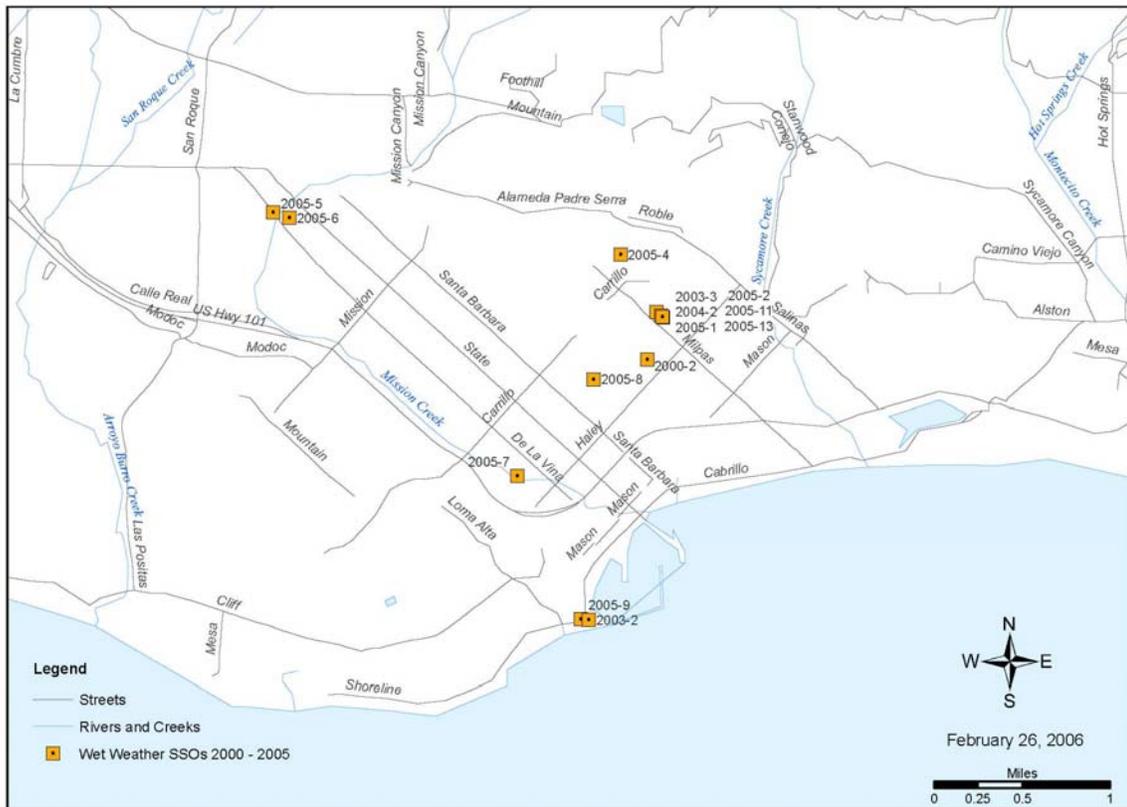


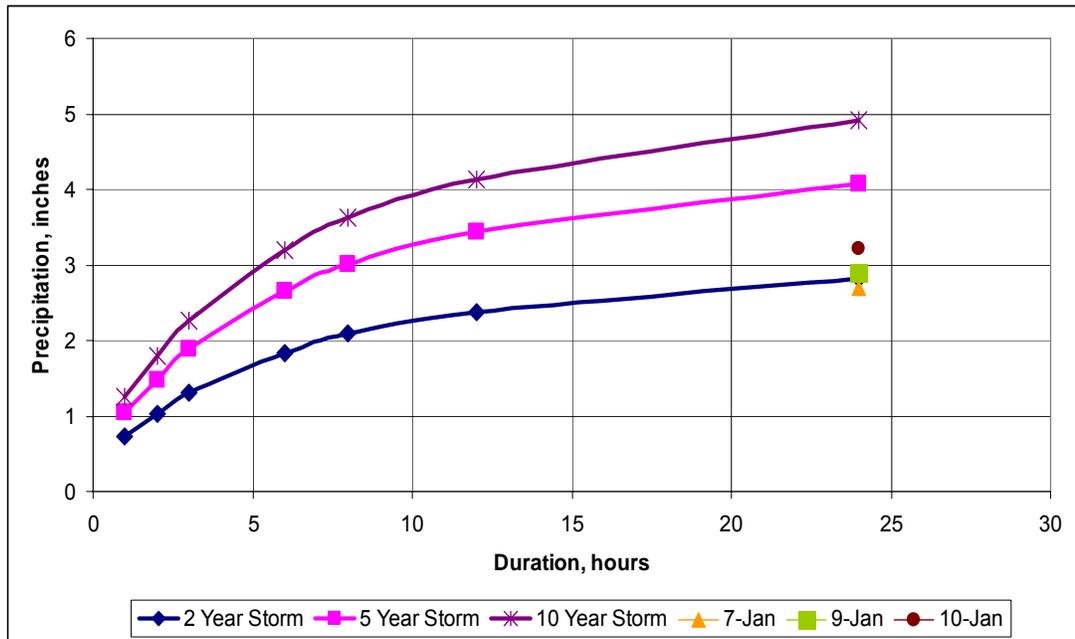
Table VIII-2: Precipitation and Storm Return Frequency for January 7-10, 2005

Date	24 Hour Precipitation, inches ¹	Estimated Return Frequency, years ²
January 7	2.7	≈ 2
January 8	1.1	< 2
January 9	2.9	2
January 10	3.2	3
Four Day Total	9.9	N/A

Notes:

1. The precipitation was estimated using the hourly data for the CDEC Del Norte (DNL) weather station. The station is located at 34.0090 degrees North, 119.6540 degrees West. The station is 800 feet above sea level. This station was used because the other hourly stations did not report data for the entire period of the January 2005 storms.
2. The storm event return intervals were determined using the Santa Barbara Flood Control District return interval table for Station 234 (Downtown Santa Barbara) shown in Figure VIII-2.

Figure VIII-2: Precipitation Duration Return Frequency Curves



Source: Santa Barbara Flood Control District Station 2341, Downtown Santa Barbara

2. Hydraulic Model

The City is implementing a hydraulic model for use in identifying capacity deficiencies. To date the City has documented the components of its collection system, it has identified the sewer basins that contribute to the trunk sewers, and it has conducted flow metering to provide the data necessary to calibrate the model. The model is being implemented in two phases. Phase 1 has been completed and is being used to address the deficiencies in the vicinity of 700 Spring Street.

Phase 2 of the hydraulic model is planned for the future.

3. Capital Improvement Program

The City prepares an annual list of capital improvement projects that includes projects to address known collection system capacity issues. Public Works Engineering Staff prioritize and select the projects to be included on the annual list. Alternatives are analyzed and schedules are established during the design process. The City does not have a formal long term capital improvement plan at this time.

5. *Inflow and Infiltration Control*

The City has an ongoing program to identify and eliminate sources of Inflow/Infiltration (I/I). The elements of the program include:

- Private Sewer Lateral Inspection Program.
- Dye/smoke testing, CCTV inspection, and creek crossing inspections to identify sources of I/I;
- Repair, rehabilitation and replacement of gravity sewers that exhibit high levels of I/I; and
- The installation of manhole inserts and the replacement of manhole frames and covers to eliminate inflow through manhole covers.

The City conducted a study of the magnitude of Inflow/Infiltration entering its collection system between December 2002 and March 2003. Forty-four flow meters were installed to monitor the flows from the City's 43 sewer basins, for a total of 99 days. It is important to note that only two of the 43 basins exhibited R factors (the quantity of rainfall entering the sanitary sewer system) greater than 5 %. The City is investigating whether those two basins (Basin SB15 and Basin SB44) actually have high rates of I/I, or whether the result was the artifact of a flow metering error.

Section IX. Monitoring, Measurement, and Program Modifications

A. Regulatory Requirements for the Monitoring, Measurement, and Program Modifications Element

NPDES Permit Requirement

- A. Monitor the implementation, and where appropriate, measure the effectiveness of each element of the WCSMP;
- B. Update program elements, as appropriate, based on monitoring or performance evaluations; and
- C. Modify the WCSMP program, as appropriate, to keep it updated and accurate and available for audit at all times.

GWDR Requirement

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.

B. Performance Measures

The indicators that the City will use to measure the performance of its wastewater collection system and the effectiveness of its WCSMP are:

- Total number of SSOs;
- Total number of stoppages;
- Total number of service calls;
- Number of SSOs related to each cause (roots, FOG, pump station failure, capacity limitations, and other);
- Portion of sewage contained compared to total volume spilled; and
- Annual production for each activity compared to goals (Section IV O&M Program).

C. Baseline Performance

The City has performance measures in place and it evaluates its performance annually. The historical, or baseline, performance is shown on Tables IX-1, IX-2, and Figures IX-1 and IX-2.

Table IX-1: CY Totals for SSOs, Stoppages, and Service Calls

CY	SSOs	Stoppages	Service Calls
2003	8	46	283
2004	14	52	252
2005	22	46	171
2006	20	40	186
2007	27	31	210

Note: SSOs during CY 2005 include ten wet weather events during January and February 2005.

Figure IX-1: Trends in SSOs, Stoppages, and Service Calls

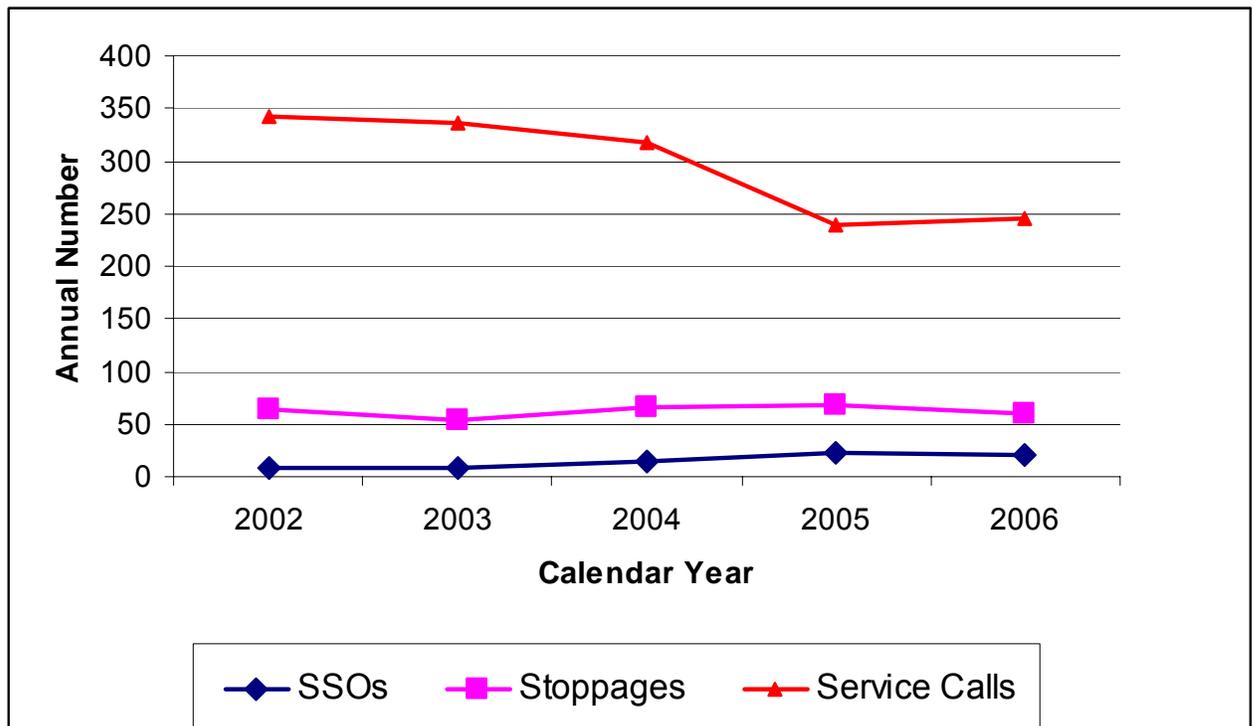
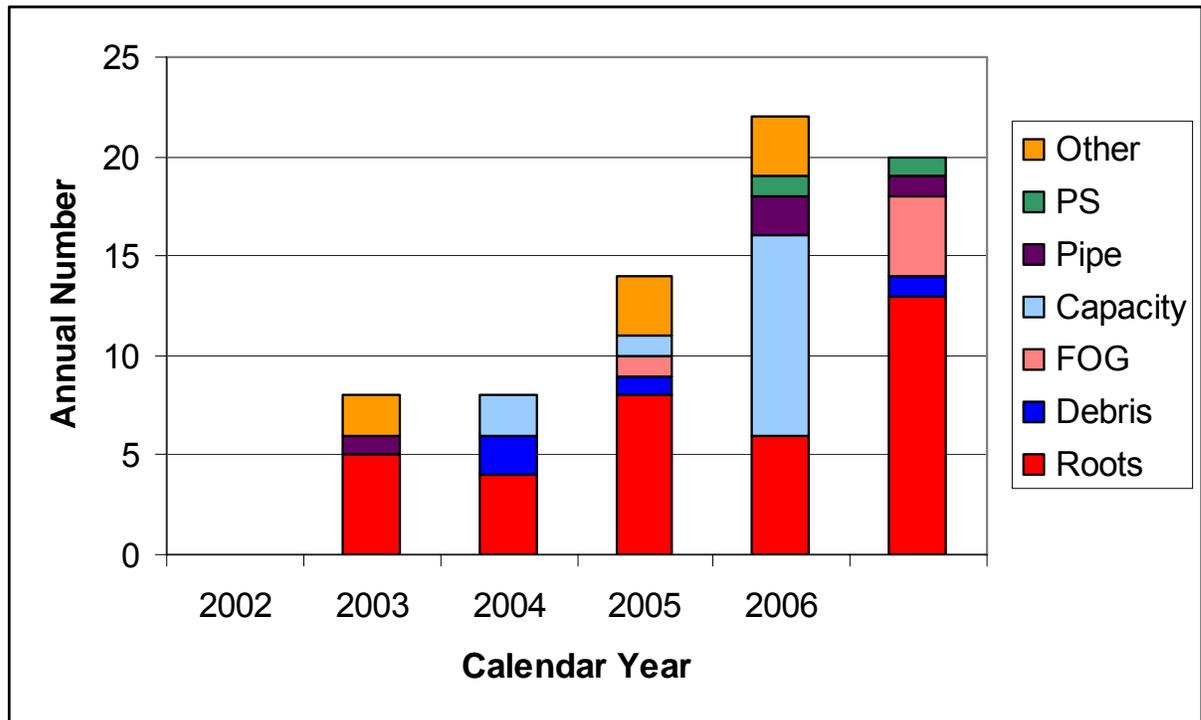


Table IX-2: CY Totals for SSOs by Cause

CY	Roots	Debris	FOG	Capacity	Pipe Failure	PS Failure	Other	Total
2003	4	0	0	2	0	0	0	8
2004	8	1	1	1	0	0	3	14
2005	6	0	0	10	2	1	3	22
2006	13	1	4	0	1	1	0	20
2007	17	6	4	0	0	0	2	29

Figure IX-2: Trends in SSOs by Cause



D. Performance Monitoring and Program Changes

The City will evaluate the performance of its wastewater collection system at least annually using the performance measures identified above. The City may use other performance measures in its evaluation. The City will initiate changes to this WCSMP and its related programs based on the results of the evaluation.

Section X. Annual Plan Updates

A. Regulatory Requirements for the Annual Plan Updates Element

NPDES Permit Requirement

As part of the WCSMP, the Permittee shall conduct an internal audit, appropriate to the size of the system and the number of overflows, and submit a report of such audit (in conjunction with the annual report specified in the Monitoring and Reporting Plan), evaluating the WCSMP and its compliance with the subsection, including its deficiencies and steps to correct them.

GWDR Requirement

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.

B. Audits

The City will audit implementation and compliance with the provisions of this WCSMP every two years. The first audit will be completed by October 1, 2008.

The audit will be conducted by a team consisting of City Staff selected from the Public Works Department. The audit team may have members from other areas of the City, outside agencies, or contractors.

The scope of the audit will cover each of the major sections of the WCSMP.

The results of the audit, including the identification of any deficiencies and the steps taken to correct them will be included in the next Annual Summary Report to the RWQCB.

C. WCSMP Updates

The City will determine the need to update its WCSMP based on the results of the audit and the performance of its wastewater collection system based on information from the Monitoring and Measuring Program. In the event that the City decides that an update is warranted, the process to complete the update will be identified. The City will complete the update within one year of completion of the semi-annual audit.

Section XI. Communication Plan

A. Introduction

This section of the WCSMP is intended to outline the process involved in communicating with interested parties regarding the implementation and performance of this plan.

B. Regulatory Requirements for the Communications Element

NPDES Permit Requirement

The Permittee should communicate at least annually with interested parties such as the Regional Board and the Santa Barbara County Health Department, on the implementation and performance of its WCSMP. The communication system should allow interested parties to provide input to the Permittee as the program is developed and implemented.

GWDR Requirement

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.

C. Communication Plan

The City's communication plan with other agencies and the public is:

RWQCB

The City submits an annual Inflow/Infiltration and Spill Prevention Report to the RWQCB that summarizes the performance of the City's wastewater collection system for the prior calendar year. The report is due on March 31st each year. The report, which is required by the City's NPDES Permit, includes information on:

- Infiltration, Inflow, and Spill Prevention Measures;
- Maintenance activities including pump stations;
- Inspection activities;
- Repair, rehabilitation, and replacement activities; and
- Resources (including sources of revenue) for management, planning, operation, and maintenance activities.

The City regularly communicates with the RWQCB as issues related to its wastewater collection system arise.

Santa Barbara County Health Department

The City notifies the Santa Barbara County Health Department when SSO events occur that meet the criteria:

- SSOs over 1,000 gallons;
- SSOs that enter waters of the State; and
- SSOs that occur where public contact is likely.

The City notified the Santa Barbara County Health Department that it was preparing a WCSMP and requested their input. The City will request input during future WCSMP updates.

Mission Canyon Sewer District (County Service Area 12)

The Mission Canyon sewer system is the City's only satellite collection system. The City provides the operation and maintenance services to the Santa Barbara County Public Works Department. The City is aware of the current performance of this sewer system because of its role in operations and maintenance. The City has regular and ongoing communications with the County.

Public

The development and implementation of the City's WCSMP was essentially complete before the GWDR requirement for public notification and input was adopted by the SWRCB on May 2, 2006. There was no opportunity for meaningful public input.

The City will post the notices on its website to inform interested members of the public regarding the status of its WCSMP, the performance of its collection system, and the schedule for the next WCSMP update. The notices to be posted are:

- The WCSMP has been completed and is on file at the City's Wastewater Treatment Plant, 520 E. Yanonali, (805) 568-1010.
- The annual Infiltration/Inflow and Spill Reduction Report is on file at the City's Wastewater Treatment Plant, 520 E. Yanonali, (805) 568-1010.

Section XII. Completion and Certification Plan

A. Introduction

Regulatory Requirements for Certification Element

Both the SSMP and the Enrollee's program to implement the SSMP must be certified by the Enrollee to be in compliance with the requirements set forth above and must be presented to the Enrollee's governing board for approval at a public meeting. The Enrollee shall certify that the SSMP, and subparts thereof, are in compliance with the general WDR's within the time frames identified in the time schedule.

The City completed its SSMP by the October 31, 2006 deadline that was included in its NPDES permit. The City has implemented each of the elements of its SSMP as they were completed.

The schedule for completion of the SSMP required by the Statewide General Waste Discharge Requirements for Wastewater Collection System Agencies (GWDR), as it pertains to the City, is shown on Table P-1: GWDR SSMP Preparation Schedule

The City has prepared its SSMP to meet the GWDR requirements for an SSMP with the result that the City's SSMP is complete well ahead of the deadlines

SSMP Appendices

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Appendix II-A: SSMP Development, Implementation, and Maintenance Responsibilities

Name	Job Title	Phone Number	SSMP Responsibility
Manuel Romero	Superintendent	(805) 568-1020	Development and Implementation, SSO Reporting
Richard Alvarado	Supervisor	(805) 568 - 1025	Implementation and Maintenance, SSO Reporting
Alex Alonzo	Supervisor	(805) 568 - 1026	Implementation and Maintenance, SSO Reporting
Louis Gutierrez	Lead	(805) 568 - 1027	Implementation and Maintenance, SSO Reporting
Anne Van Belkom	Administrative Assistant	(805) 568-1032	Administrative Support
(Vacant)	Administrative Specialist	(805) 568-1032	Administrative Support

Description of General Responsibilities

Wastewater Collection System Superintendent. Plans, organizes and supervises the maintenance and repair of the wastewater collection system infrastructure. Confers with contractors, engineers, and other city staff regarding issues related to the management of the overall collection system. Reviews plans and specifications for sewer projects, and makes recommendations regarding operational aspects which include preventative maintenance, construction, repair, and emergency response. Controls budget expenditures.

Wastewater Collection System Supervisor. Supervises wastewater collection system staff, and schedules work assignments. Maintains records of assigned and completed projects, and keeps an inventory of all parts and equipment used for each project, including their maintenance costs. Investigates complaints, and makes recommendations regarding the operational aspects of the collection system including preventative maintenance, construction, repair, and emergency response. Acts as project coordinator for specialized collection system projects. Coordinates and confers with collection system staff regarding day to day projects and problems. Confers with contractors, engineers, and city staff regarding issues related to the collection system. Prepares reports and maintains the electronic database for collection system assets.

Wastewater Collection System Lead Operator. Assists with the supervision of the wastewater collection system staff, and helps to schedule their work assignments. Assists with the preventative maintenance and repair of the sewer system. Maintains records of assigned and completed projects, the equipment needed for each project, and the maintenance required by the various types of equipment. Makes recommendations regarding the operation of the collection system including preventative maintenance, construction, repair, and emergency response.

Senior Wastewater Collection System Operator. Assists with the supervision of the wastewater collection system staff, and helps to schedule work assignments. Assists with preventative maintenance and the repair of the sewer system. Maintains records of projects that were assigned and have been completed. Keeps track of parts and equipment used, including equipment maintenance. Makes recommendations regarding the preventative maintenance, construction, repair, and emergency response related to the day to day operation of the wastewater collection system.

Wastewater Collection System Operator I/II. Assists with the preventative maintenance and repair of the sewer system, including the general operation of cleaning and inspection of the equipment. Maintains records of assigned and completed projects including all parts and equipment being utilized. Completes operational aspects of the collection system such as taking care of preventative maintenance, construction, repair, and emergency response.

Administrative Assistant. Assists the Wastewater Collection System Superintendent with the administration of the wastewater collection system operation and staff management. Maintains and updates employee and payroll records, work schedules, and certification requirements. Responsible for administrative functions related to the Sewer Lateral Inspection Program including data entry, record keeping, and correspondence. Assists the Superintendent with special correspondence, projects, and reports.

Administrative specialist. Assists the Wastewater Collection Administrative Assistant and the the Supervisor with clerical support for the Sewer Lateral Inspection Program and assists with special projects. Also provides clerical support regarding the maintenance and update of employee and payroll records, and employee work schedules. Duties include data entry, scanning, xeroxing, filing and record keeping, routine correspondence, mailing of letters, and maintaining and updating routine forms.

Appendix III-A: General and Specific Prohibitions of the National Pretreatment Program (40CFR 403.8(f) (1))

(f) POTW pretreatment requirements. A POTW pretreatment program must be based on the following legal authority and include the following procedures. These authorities and procedures shall at all times be fully and effectively exercised and implemented.

Legal authority. The POTW shall operate pursuant to legal authority enforceable in Federal, State or local courts, which authorizes or enables the POTW to apply and to enforce the requirements of sections 307 (b) and (c), and 402(b)(8) of the Act and any regulations implementing those sections. Such authority may be contained in a statute, ordinance, or series of contracts or joint powers agreements which the POTW is authorized to enact, enter into or implement, and which are authorized by State law. At a minimum, this legal authority shall enable the POTW to:

- (i) Deny or condition new or increased contributions of pollutants, or changes in the nature of pollutants, to the POTW by Industrial Users where such contributions do not meet applicable Pretreatment Standards and Requirements or where such contributions would cause the POTW to violate its NPDES permit;
- (ii) Require compliance with applicable Pretreatment Standards and Requirements by Industrial Users;
- (iii) Control through permit, order, or similar means, the contribution to the POTW by each Industrial User to ensure compliance with applicable Pretreatment Standards and Requirements. In the case of Industrial Users identified as significant under 40 CFR 403.3(t), this control shall be achieved through permits or equivalent individual control mechanisms issued to each such user. Such control mechanisms must be enforceable and contain, at a minimum, the following conditions:
 - (A) Statement of duration (in no case more than five years);
 - (B) Statement of non-transferability without, at a minimum, prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator;
 - (C) Effluent limits based on applicable general pretreatment standards in part 403 of this chapter, categorical pretreatment standards, local limits, and State and local law;
 - (D) Self-monitoring, sampling, reporting, notification and recordkeeping requirements, including an identification of the pollutants to be monitored, sampling location, sampling frequency, and sample type, based on the applicable general pretreatment standards in part 403 of this chapter, categorical pretreatment standards, local limits, and State and local law;
 - (E) Statement of applicable civil and criminal penalties for violation of pretreatment standards and requirements, and any applicable compliance schedule. Such schedules may not extend the compliance date beyond applicable federal deadlines.
- (iv) Require (A) the development of a compliance schedule by each Industrial User for the installation of technology required to meet applicable Pretreatment Standards and Requirements and (B) the submission of all notices and self-monitoring reports from Industrial Users as are necessary to assess and assure compliance by Industrial Users with Pretreatment Standards and Requirements, including but not limited to the reports required in Sec. 403.12.
- (v) Carry out all inspection, surveillance and monitoring procedures necessary to determine, independent of information supplied by Industrial Users, compliance or noncompliance with applicable Pretreatment Standards and Requirements by Industrial Users. Representatives of the POTW shall be authorized to enter any premises of any Industrial User in which a

Discharge source or treatment system is located or in which records are required to be kept under Sec. 403.12(m) to assure compliance with Pretreatment Standards. Such authority shall be at least as extensive as the authority provided under section 308 of the Act;

- (vi) (A) Obtain remedies for noncompliance by any Industrial User with any Pretreatment Standard and Requirement. All POTW's shall be able to seek injunctive relief for noncompliance by Industrial Users with Pretreatment Standards and Requirements. All POTWs shall also have authority to seek or assess civil or criminal penalties in at least the amount of \$1,000 a day for each violation by Industrial Users of Pretreatment Standards and Requirements. (B) Pretreatment requirements which will be enforced through the Remedies set forth in paragraph (f)(1)(vi)(A) of this section, will include but not be limited to, the duty to allow or carry out inspections, entry, or monitoring activities; any rules, regulations, or orders issued by the POTW; any requirements set forth in individual control mechanisms issued by the POTW; or any reporting requirements imposed by the POTW or these regulations. The POTW shall have authority and procedures (after informal notice to the discharger) immediately and effectively to halt or prevent any discharge of pollutants to the POTW which reasonably appears to present an imminent endangerment to the health or welfare of persons. The POTW shall also have authority and procedures (which shall include notice to the affected industrial users and an opportunity to respond) to halt or prevent any discharge to the POTW which presents or may present an endangerment to the environment or which threatens to interfere with the operation of the POTW. The Approval Authority shall have authority to seek judicial relief and may also use administrative penalty authority when the POTW has sought a monetary penalty which the Approval Authority believes to be insufficient.
- (vii) Comply with the confidentiality requirements set forth in Sec. 403.14.

Appendix IV–A: Line Segments Requiring Repair, Rehabilitation, or Replacement

Replacement locations:

	Address	Start MH	End MH	Length	Size
1	100 Blk Anacapa St	051	008	450	8"
2	00 Blk E. Carrillo St.	012	013	75	6"
3	1100 Blk. Shoreline Dr.	016	017	417	10"
4	300 Blk. W. Canon Perdido at Castillo	039	040	40	12"
5	2100 Blk. Anacapa St.	062	021	365	8"
6	700 Blk. E. Montecito St.	067	064	220	6"

Rehabilitation Locations:

	Address	Start MH	End MH	Length	Size
1	1300 Blk De La Vina St	017	039	513	6"
2	1400 Blk De La Vina St.	020	017	513	6"
3	400 Blk Terrace Rd.	81	84	1,420	6"
4	268 Canon Dr. easement	Co 09	24	1,985	6"
5	1299 Ferrelo Rd.	057	007	650	6"
6	1250 Ferrelo Rd. easement	93	92	180	6"
7	1200 Blk Ferrelo Rd.	108	014	610	6"
8	860 Paseo Ferrelo	Co 04	14	525	6"
9	900 Blk E. Carrillo Rd. easement	077	084	200	6"
10	00 Blk. W. Junipero St.	015	038	375	6"

	Address	Start MH	End MH	Length	Size
11	1092 Garcia Rd easement	046	045	150	6"
12	1034 Garcia Rd easement	42	36	376	6"
13	514 W. Sola St	031	057	133	6"
14	1000-1100 Blks Garcia Rd	48	01	1,231	6"
15	1123 Garcia Rd easement	060	Unk Mini MH	140	6"
16	900 Blk Garcia Rd.	27	94	528	6"
17	916 Garcia Rd.	097	098	240	6"
18	1000 Blk San Diego Rd	Co 006	099	360	6"
19	1014 San Diego Rd easement	026	025	180	6"
20	925 Isleta easement	058	010	155	6"
21	2400 Blk Chapala St.	039	038	390	6"
22	Oceano Ave. (100-200-300 Blks.)	18	19	1,315	6"
23	1400 Blk Eucalyptus Hill Rd.	055	054	320	6"
24	100 Blk Morada In easement	23	34	815	6"
25	400 Blk E. Carrillo St.	053	052	364	6"
26	1807 Mira Vista Easement	050	093	406	6"
27	2400 Blk State St.	052	048	520	6"
28	1432 Alameda Padre Serra easement	013	012	467	6"
29	100 Blk S. Salinas St.	003	054	480	6"
30	1814 Cleveland St. easement	015	070	315	6"
31	1500 Blk Santa Rosa Ave.	020	011	511	6"
32	1700 Blk Olive St.	Co 14	084	138	6"
33	400 Blk S. Canada St. freeway easement	032	031	250	6"
34	1316 Dover Hill Rd	054	064	165	6"
35	400 Blk N. Soledad St.	017	016	257	6"
36	100 Blk W. Ortega St.	045	044	212	6"
37	1300,1400,1500 Blks. Alta Vista Rd.	044	030	650	6"
38	100 Blk Eucalyptus Hill Circle	45	67	645	8"

	Address	Start MH	End MH	Length	Size
39	2100-2000 Blks Bath St.	044	007	1,045	8"
40	800 Blk Deerpath Rd.	Co 10	008	620	8"
41	2300 Blk. De La Vina St.	040	052	510	8"
42	1100 Blk Harbor Hills Ln. easement	096	080	465	8"
43	200 Blk Vista Del Mar Dr.	028	009	592	8"
44	00 Blk Vista Del Mar Dr.	009	008	535	8"
45	2400 - 2500 Blks Mesa School Lane	007	093	1,175	8"
46	800 Blk. Camino Viejo Rd.	012	006	580	8"
47	1909 Barker Pass Rd.	Co 04	031	361	8"
48	1200 Blk Cacique St. line A	052	047	383	8"
49	1200 Blk Cacique St. line B	049	046	440	8"
50	200 Blk Lighthouse Rd.	055	052	675	8"
51	1300 Blk Olive St.	047	035	514	8"
52	1901 Gibraltar Rd.	008	029	318	8"
53	1500 Blk Mountain Ave. easement	021	017	275	8"
54	800 Blk Olive St.	033	018	512	8"
55	1300 Blk Dover Hill Rd.	44	54	595	8"
56	300 Blk Northridge Rd.	001	029	345	8"
57	515 W. Sola St. easement	57	46	1,035	8"
58	200 Blk Morada Lane easement	28	23	1,000	8"
59	800 Blk Woodland Dr.	049	011	515	8"
60	1600 to 1700 Blks Hillcrest Rd.	Co 05	Co 01	795	8"
61	1732 Hillcrest Rd. easement	009	008	345	8"
62	970 Carrillo Rd. easement	075	083	65	8"

Repair Locations Digouts:

	Address	Start MH	End MH	Depth	Size
1	419 N. Soledad St.	016	017	6.0	6
2	411 E. Carrillo St.	053	052	4.0	6
3	402 E Carrillo St.	053	052	4.5	6
4	401 E. Carrillo St.	053	052	4.5	6
5	401 E. Carrillo St.	053	052	9.0	6
6	802 W. Micheltorena St.	062	064	5.0	6
7	926 E. Indio Muerto St.	034	044	6.0	6
8	209 E. Cota St.	013	Plug	5.0	6
9	De La Vina @ Canon Perdido St.	010	067	4.0	6
10	State @ Carrillo St.	63	Co 12	6.0	6
11	2537 Mesa School In	007	008	6.0	8
12	370 Mountain Rd.	013	043	9.5	8
13	360 Mountain Rd	013	043	9.5	8
14	1636 Las Canoas Rd	008	035	5.5	8
15	1632 Las Canoas Rd	035	034	6.0	8
16	2411 Mesa School In	092	093	8.0	8
17	1750 Hillcrest Rd	008	001	9.0	8
18	1750 Hillcrest Rd	008	001	6.0	8
	<u>SPOT LINER</u>				
1	3034 Serena Rd.	089	090	6.0	6
2	216 Calle Manzanita	074	073	9.0	6

3	1328 W. Valerio St.	048	016	6.5	6
	Address	Start MH	End MH	Depth	Size
4	1700 Blk Anacapa St.	016	044	11.0	8
5	3200 Blk Calle Noguera	008	061	9	8
6	3100 Blk Calle Noguera	059	058	14.0	8
7	1218 Santa Barbara St.(equestrian Ave)	072	074	9.5	6
8	218 Equestrian Ave.	072	074	7.0	6
9	15 Rubio Rd.	094	100	5.0	6
10	536 E. Sola St.	004	047	7.0	6
11	19 N. Ontare Rd.	064	CO	6.0	8
	<u>MH REPLACEMENT NEW CONSTRUCTION</u>				
1	11 E. Haley St.	plug	024	n/a	6
2	20 E. Cota St.	Co 010	023	n/a	6
3	18 E. Ortega St.	plug	021	n/a	6
4	15 W. Carrillo St.	unk	070	n/a	6
	<u>MH REPLACEMENT</u>				
1	De La Vina St. @ Cota St.	G10-051	G10-051	n/a	8

Appendix IV–B: Wastewater Collection System Equipment List

Description	Number	Location
Hydro – vacuum truck	669	Wastewater Treatment Plant
Hydro – vacuum truck	669	Wastewater Treatment Plant
Hydro – jetter truck	667	Wastewater Treatment Plant
CCTV van	636	Wastewater Treatment Plant
2 ½ ton Flatbed construction truck	619	Wastewater Treatment Plant
Mechanical Rodder truck	627	Annex yard
Hydro – jetter easement machine		Annex yard
JD 510D Backhoe excavator	642	Annex yard
2 1/2 ton Dump truck	628	Annex yard
1 1/2 ton Flatbed truck	634	Wastewater Treatment Plant
½ ton pickup truck	650	Wastewater Treatment Plant
½ ton pickup truck	635	Wastewater Treatment Plant
½ ton pickup truck	633	Wastewater Treatment Plant
½ ton pickup truck	623	Wastewater Treatment Plant
6" Bypass pumper	Godwin	Annex yard
4" Bypass pumper	Power Prime	Annex yard
Lift Station Tool Truck	2114	Wastewater Treatment Plant
Lift Station Fuel Truck	2055	Wastewater Treatment Plant
Lift Station Control Systems Truck	2178	Wastewater Treatment Plant
Maintenance Lift Gate Truck	2050	Wastewater Treatment Plant

Appendix IV-C: Wastewater Collection System Replacement Parts Inventory

Description	Part Number	Inventory	Location
4" 6"8"10"12" Repair Couplings	na	6 ea.	Annex Yard
4" 6"8"10"12" PVC Pipe		100 ft. ea.	Annex Yard
4" by 6"-8"-10" 12" PVC Wyes		12 ea.	Annex Yard
3" and 6" H X 24" ID Manhole adjustment rings		12 ea.	Annex Yard
12" 24" 32" 36" 42" H X 48" ID Manhole shafts		2 ea.	Annex Yard
4" and 6" by 24" ID Manhole frame and covers		12 ea.	Annex Yard
4" and 6" Tapping saddles		12 ea.	Annex Yard
100 hp Smith and Loveless pump – 4003 Breamar LS	9801200 typ. s/n	1	Wastewater Treatment Plant
25 hp Smith and Loveless pump – 4006 La Colina LS	Model 0250c-1han-0001 s/n961240 typ.	1	Wastewater Treatment Plant
15 hp Smith and Loveless pump -4700 Via Lucero LS	880992 typ. s/n	1	Wastewater Treatment Plant
30 hp Fairbanks & Morse pump – 4010 Skofield LS	Mod. S21a136u	1	Wastewater Treatment Plant
Simas PLC CPU	Model 400	1	Wastewater Treatment Plant
Allen Bradley P.S.	SLC 500	1	Wastewater Treatment Plant

Appendix IV-D: Wastewater Collection System Replacement Parts Inventory Procedure

The City maintains an electronic inventory of equipment, replacement parts and supplies, and adheres to a structured process to ensure up to date inventory accounting principles. The City maintains an adequate list of local vendors (along with their emergency contact numbers) for non-stock items.

The City keeps critical replacement parts available such as the stocking of spare pumps, glands, check valves, plug valves, pipe fittings, couplings etc. The City makes every effort to use the identical model pumps in as many stations as possible to simplify maintenance and replacement.

The City's Purchasing Department has procedures in place for pre-qualifying vendors, including procedures for sole-source purchases to standardize critical parts and equipment.

Appendix VII-A: Wastewater Collection System Personnel Contact Information

Department/Title	Contact Name	Office Phone	Cell Phone
Acting Water Resources Manager	Rebecca Bjork	897-1914	729-1094
Acting Wastewater System Manager	John Schoof	564-5412	403-5959
Water System Manager	Cathy Taylor	564-5379	705-4902
Wastewater Engineering Staff			
Supervising Civil Engineer	Loree Cole	564-5376	680-9509
Project Engineer	Vacant	n/a	n/a
Wastewater Collection Staff			
Wastewater Collection System Superintendent	Manuel Romero	568-1020	331-3970
Administrative Assistant	Anne Van Belkom	568-10321	636-3374
Administrative Specialist	(Vacant)	n/a	n/a
Wastewater Collection System Supervisor	Richard Alvarado	568-1025	331-2747
Wastewater Collection System Project Coordinator	Alex Alonzo	568-1026	331-2695
Wastewater Collection System Lead Operator	Louis Gutierrez	568-1027	331-3972
Senior Wastewater Collection System Operator	Ramon Bravo	568-1010	259-8300
Senior Wastewater Collection System Operator	Rob Fair	568-1010	698-8908
Senior Wastewater Collection System Operator	Jim Scott	568-1010	n/a
Senior Wastewater Collection System Operator	Esteban Zambrano	568-1010	637-8231
Wastewater Collection System Operator II	Steve Corral	568-1010	453-5432
Wastewater Collection System Operator I	Matt Lombardi	568-1010	448-6414
Wastewater Collection System Operator I	Gary Lopez	568-1010	n/a
Wastewater Collection System Operator I	Tom Mozako	568-1010	708-6566
Wastewater Collection System Operator I	Matt Rico	568-1010	n/a

Department/Title	Contact Name	Office Phone	Cell Phone
Wastewater Collection Staff (continued)			
Wastewater Collection System Technician I	Dale Escobar	568-1010	n/a
Wastewater Collection System Operator I	Jason Badgley	568-1010	n/a
Wastewater Collection System Operator I	Carlos Trejo	568-1010	453-5144
Wastewater Treatment Staff			
Wastewater Treatment Superintendent	Victor Acosta	568-1001	729-0361
Wastewater Treatment Supervisor	Todd Heldoorn	568-1003	403-5278
Treatment Plant Technician Supervisor	Tom Totton	568-1009	755-3437
Treatment Plant Chief Operator	David Lewis	568-1029	259-5744
Treatment Plant Maintenance Chief	Vince Pimentel	568-1016	218-8949 h 755-3478 w
Senior Control Systems Operator Specialist	Milisav Pavlovic	568-1011	755-3576
Control Systems Operator Specialist	Gurpal Sandhu	568-1092	755-3307
Control Systems Operator Specialist	Roger Tousignant	568-1014	729-1092 h 755-3593 w
Senior Treatment Plant Technician	Charlie Figueroa	568-1015	755-3460
Senior Treatment Plant Technician	Amador (Herman) Escalante	568-1030	755-3440
Treatment Plant Technician	Perry Cabugos	568-1033	755-3529
Treatment Plant Technician	Joaquin Ortega	568-1030	755-3570
Treatment Plant Technician	Seth Gelber	568-1030	570-0549
Treatment Plant Technician	Chito Macario	568-1031	815-7775 h 755-3552 w

Department/Title	Contact Name	Office Phone	Cell Phone
Wastewater Treatment Staff (continued)			
Senior Wastewater Treatment Operator	Thomas Welche	568-1013	722-2902
Senior Wastewater Treatment Operator	Patrick Allen	568-1029	708-0925
Wastewater Treatment Operator	Armand De La Rosa	568-1013	n/a
Wastewater Treatment Operator	Shane Starr	568-1013	n/a
Wastewater Treatment Operator	Phillip Walker	568-1013	n/a
Wastewater Treatment Operator	Mark Smith	568-1013	n/a
Wastewater Treatment Operator	Patrick Allen	568-1013	708-0923
Wastewater Treatment Operator	Ed MacGregor	568-1013	n/a
Wastewater Treatment Operator	Greg Quimby	568-1013	252-4064
Wastewater Treatment Operator	Chris Schmidtchen	568-1013	252-5689
Wastewater Treatment Operator	Jasper Allen	568-1013	969-3070
Wastewater Treatment Operator	Josh Canning	568-1013	705-9858
Wastewater Treatment Operator	VACANT	n/a	n/a
Water Resources Distribution Staff			
Water Distribution Superintendent	Jon Peebles	564-5445	886-2539
Water Distribution Supervisor	Gabriel Ibarra	564-5414	455-4969
Water Distribution Supervisor	Jose Marquez	564-5409	570-9232
Water Distribution Lead Operator Tech.	Jim Jenkins	564-4376	895-6414
Water Distribution Operator Tech. II	Rick Marshall	564-4376	452-8056
Water Distribution Operator Tech. II	Matthew Sanchez	564-4376	451-8960
Water Resources Control 10 and 14			
Water Resources Control 10	Monday-Friday 0700-1530 hrs.	564-5413	n/a
Water Resources Control 14	After Hours Emergency	963-4286	n/a

Appendix VII-B: Public Agency Contact Information

Agency	Phone
California Department of Fish and Game	(858) 467-4201 (San Diego office)
California Highway Patrol	(805) 967-1234
California State Office of Emergency Services	(800) 852-7550 or (916) 845-8911
Caltrans	(805) 568-1250
City of Santa Barbara Public Works Control 10 Dispatch Control 14 Dispatch	(805) 564-5413 (805) 963-4286
Coast Guard	(805) 962-7430
County Environmental Health Services Department	(805) 681-4900
County Flood Control	(805) 568-3440
National Response Center	(800) 424-8802
Police and Fire Dispatch	911 or (805) 897-2410
Regional Water Quality Control Board	(805) 549-3147
Santa Barbara County Office of Emergency Services County Dispatch	(805) 681-5526 * when not in state of emergency 911 or (805) 696-9552 * during state of emergency
Treatment Plant (Industrial Waste Enforcement and Investigation)	(805) 568-1005

Appendix VII–C: Vendor and Contractor Contact Information

Vendor/Agency	Address	Phone Number(s)	Service
Pacific Rim Automation Inc.	5445 Oceanus Drive, Suite 105 Huntington Beach, CA 92649	Cell: (714) 899-7690 Office: (800) 962-5458 Fax: (714) 899-7691	S.C.A.D.A.
F & F Industries	2533 North Fair Oaks Avenue Altadena, CA 91001	Office: (626) 791-9441 Fax: (626) 791-9448	Pumps for; Breamar, La Colina, Via Lucero
Flow Systems Inc.	3010 Floyd Street Burbank, CA	Office: (818) 562-5282 Fax: (818) 842-3217	Pumps for; El Camino Del La Luz, Skolfield
Liquid Handling Systems	1441 Village Way Santa Ana, CA 92705	Office: (714) 558-2520	Pumps for; Tallant Rd.
Oil Field Electric	1801 N. Ventura Ave. Ventura, CA 93001	Office: (805) 648-3131	Repairs for; All Pumps in the System
Electric Parts Center	6150 Francis Botello Rd # A Goleta, CA 93117	Office: (805) 967-9392 Fax: (805) 967-2460	Spare Electrical Parts
Quinn Company	801 Del Norte Boulevard Oxnard, CA 93030	Office (805) 485-2171 Fax: (805) 983-1643	Generators
Ventura Pipe And Supply	1334 Callens Road. Ventura, CA 93003	Office: (805) 658-0839 Fax: (805) 658-6784	Pipe/materials supplier
Jim Klippel Repair	424 Laguna Street Santa Barbara, CA 93101	Office: (805) 963-0020	Tool repair
Milpas Rental	6 N. Milpas Street Santa Barbara, CA 93103	Office: (805) 963-1987	Equipment rental
Hertz Equipment Rental	3650 Market Street Ventura, CA 93003	Office: (805) 658-9100	Construction Equipment rental
Coastline Equipment Rental	1930 E. Lockwood Street Oxnard, CA 93031	Office: (805) 485-2106 Fax: (805) 485-7963	Construction Equipment rental
Donovan Electric	315 Bath Street Santa Barbara, CA 93120	Office: (805) 963-1885	Electrical contractor
Taft Electric	P.O. Box 3416 Ventura, CA 93006	Office: (805) 642-0121	Electrical contractor
Tierra Construction	5484 Overpass Rd. Santa Barbara, CA 93111	Office: (805) 964-8747	General Eng. Contractor
Godwin Pumps	5041 Ridgelea Avenue Buena Park, CA 90621	Office: (714) 521-2256	Bypass pumps parts/repair

Vendor/Agency	Address	Phone Number(s)	Service
Lash Construction	721 Carpinteria St. Santa Barbara, CA 93103	Office: (805) 963-3553	General Eng. Contractor
Granite Construction	5335 Debbie Lane Santa Barbara, CA 93111	Office: (805) 964-9951	General Eng. Contractor
Marborg Industries	728 E. Yanonali St. Santa Barbara, CA 93103	Office: (805) 963-1852	Vacuum Tanker trucks
Rain For Rent	333 S. 12th St. Santa Paula, CA 93061	Office: (805) 399-9124	Bypass Pump Equipment
HD Supply LTD. Waterworks	25108 Rye Canyon Loop, Valencia, CA 91355	Office: (661) 257-2996	Pipe/materials supplier
Ferguson Pipe and Supply	602 E. Montecito St. Santa Barbara, CA 93103	Office: (805) 644-8871	Pipe/materials supplier
Stewarts' DeRooting	735 S Kellogg Ave Goleta, CA 93117	Office: (805) 965-8813	Hydro-Vactor
County Sanitation Company	PO BOX 576 Summerland, CA 93067	Office: (805) 682-3568	Vacuum Tanker
Goleta Sanitary District	One William Moffett Place Goleta, California 93117	Office: (805) 967-4519	Hydro-Vactor
Goleta West Sanitary District	UCSB Campus Park. Lot 32 Santa Barbara, CA 93106	Office: (805) 968-2617	Hydro-Vactor
Montecito Sanitary District	1042 Monte Cristo Lane, Santa Barbara, CA 93108	Office: (805) 969-4200	Hydro-Vactor
Carpinteria Sanitary District	5300 6th St. Carpinteria, CA 93013	Office: (805) 684-7214	Hydro-Vactor

Appendix VII–D: Methods for Estimating Spill Volume

A variety of approaches exist for estimating the volume of a sanitary sewer spill. This appendix documents the three methods that are most often employed. The person preparing the estimate should use the method most appropriate to the sewer overflow in question and use the best information available.

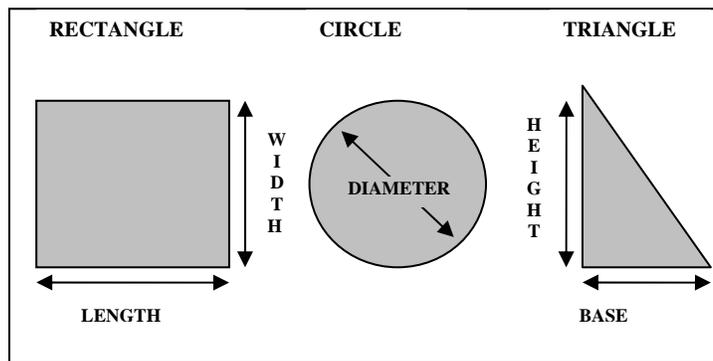
Method 1 Eyeball Estimate

The volume of small spills can be estimated using an “eyeball estimate”. To use this method imagine the amount of water that would spill from a bucket or a barrel. A bucket contains 5 gallons and a barrel contains 50 gallons. If the spill is larger than 50 gallons, try to break the standing water into barrels and then multiply by 50 gallons. This method is useful for contained spills up to approximately 200 gallons.

Method 2 Measured Volume

The volume of most small spills that have been contained can be estimated using this method. The shape, dimensions, and the depth of the contained wastewater are needed. The shape and dimensions are used to calculate the area of the spills and the depth is used to calculate the volume.

Figure VII-D–1: Common Shapes and Dimensions



Step 1 Sketch the shape of the contained sewage (see Figure VII-D-1).

Step 2 Measure or pace off the dimensions.

Step 3 Measure the depth at several locations and select an average.

Step 4 Convert the dimensions, including depth, to feet.

Step 5 Calculate the area in square feet using the following formulas:

Rectangle: Area = length (feet) x width (feet)

Circle: Area = diameter (feet) x diameter (feet) x 3.14

Triangle: Area = base (feet) x height (feet) x 0.5

Step 6 Multiply the area (square feet) times the depth (in feet) to obtain the volume in cubic feet.

Step 7 Multiply the volume in cubic feet by 7.5 to convert it to gallons

Method 3 Duration and Flowrate

Calculating the volume of larger spills, where it is difficult or impossible to measure the area and depth, requires a different approach. In this method, separate estimates are made of the duration of the spill and the flowrate. The methods of estimating duration and flowrate are:

Duration: The duration is the elapsed time from the time the spill started to the time that the flow was restored.

Start time: The start time is sometimes difficult to establish. Here are some approaches:

- a Local residents can be used to establish start time. Inquire as to their observations. Spills that occur in rights-of-way are usually observed and reported promptly. Spills that occur out of the public view can go on longer. Sometimes observations like odors or sounds (e.g. water running in a normally dry creek bed) can be used to estimate the start time.
- a Changes in flow on a downstream flowmeter can be used to establish the start time. Typically the daily flow peaks are “cut off” or flattened by the loss of flow. This can be identified by comparing hourly flow data during the spill event with flow data from prior days.
- a Conditions at the spill site change over time. Initially there will be limited deposits of toilet paper and other sewage solids. After a few days to a week, the sewage solids form a light-colored residue. After a few weeks to a month, the sewage solids turn dark. The quantity of toilet paper and other materials of sewage origin increase over time. These observations can be used to estimate the start time in the absence of other information. Taking photographs to document the observations can be helpful if questions arise later in the process.
- a It is important to remember that spills may not be continuous. Blockages are not usually complete (some flow continues). In this case the spill would occur during the peak flow periods (typically 10:00 to 12:00 and 13:00 to 16:00 each day). Spills that occur due to peak flows in excess of capacity will occur only during, and for a short period after, heavy rainfall.

End time: The end time is usually much easier to establish. Field crews on-site observe the “blow down” that occurs when the blockage has been removed. The “blow down” can also be observed in downstream flowmeters.

Flow Rate: The flowrate is the average flow that left the sewer system during the time of the spill.

There are three common ways to estimate the flowrate:

- a The San Diego Manhole Flowrate Chart: This chart, included as Appendix VII-E, shows sewage flowing from manhole covers at a variety of flowrates. The observations of the field crew can be used to select the appropriate flowrate from the chart. If possible, photographs are useful in documenting basis for the flowrate estimate.
- a Flowmeter: Changes in flows in downstream flowmeters can be used to estimate the flowrate during the spill.
- a Counting Connections: Once the location of the spill is known, the number of upstream connections can be determined from the sewer maps. Multiply the number of connections by 200 to 250 gallons per day per connection or 8 to 10 gallons per hour per connection.

For example:

$$\begin{aligned} & 22 \text{ upstream connections} \times 9 \text{ gallons per hour per connection} \\ & = 198 \text{ gallons per hour} / 60 \text{ minutes per hour} \\ & = 3.3 \text{ gallons per minute} \end{aligned}$$

Spill Volume: Once duration and flowrate have been estimated, the volume of the spill is the product of the duration in hours or days and the flowrate in gallons per hour or gallons per day.

For example:

Spill start time = 11:00

Spill end time = 14:00

Spill duration = 3 hours

$$\begin{aligned} & 3.3 \text{ gallons per minute} \times 3 \text{ hours} \times 60 \text{ minutes per hour} \\ & = 594 \text{ gallons} \end{aligned}$$

Appendix VII–E: Manhole Overflow Flowrate Guide



Wastewater Collection Division
(619) 654-4160



rev. 4/99

Reference Sheet for Estimating Sewer Spills from Overflowing Sewer Manholes

All estimates are calculated in gallons per minute (gpm)



City of San Diego
Metropolitan Wastewater Department



All photos were taken during a demonstration using metered water from a hydrant in cooperation with the City of San Diego's Water Department.

Appendix VII-F: Preliminary CIWQS Wastewater Overflow Report Form and CIWQS Sewage Spill Form

(This is both the preliminary spill report form and the electronic form that is forwarded for the on-line submission on the CIWQS website)



CITY OF SANTA BARBARA

CIWQS WASTEWATER OVERFLOW REPORT

Physical Location Details:

*Spill Location Name: _____

*Latitude Of Spill Location: deg. min. sec. OR decimal degrees

*Longitude Of Spill Location: deg. min. sec. OR decimal degrees

Street Number: _____ Street Direction: North South East West

Street Name: _____ Street Type: _____ Suite/Apt: _____ Cross Street: _____

City: _____ State: ____ ZIP: _____ *County: _____

Spill Location Description:

Spill Details:

*Spill Appearance Point: Building or Structure Other Sewer System Structure
 Pump Station Force Main or Pressure Sewer
 Manhole Gravity Sewer Other (specify): _____

Spill Appearance Point Explanation (required if spill appearance point is "Other"):

*Did the spill discharge to a drainage channel and/or surface water? Yes No

*Did the spill discharge to a storm drain pipe that was not fully captured and returned to the sanitary sewer system? Yes No

*Private Lateral Spill: Yes No Name Of Responsible Party (for private lateral spill only, if known): _____

*Final Spill Destination: Building or Structure Unpaved surface
 Street/curb and gutter Other Paved Surface Storm Drain
 Surface Water Beach Other (specify below)

Explanation of final spill destination(required if final spill destination is "Other"):

*Estimated Spill Volume:	<input type="text"/>	gallons
*Estimated Volume of Spill Recovered:	<input type="text"/>	gallons
*Estimated volume of spill that reached surface water, drainage channel, or not recovered from a storm drain:	<input type="text"/>	gallons
*Estimated Current Spill rate (if applicable):	<input type="text"/>	gallons per minute
*Estimated start spill date/time:	Date (MM/DD/YYYY): _____	Time: _____
*Date and time Sanitary Sewer System Agency was notified or discovered spill:	Date (MM/DD/YYYY): _____	Time: _____
*Estimated Operator arrival date/time:	Date (MM/DD/YYYY): _____	Time: _____
*Estimated spill end date/time:	Date (MM/DD/YYYY): _____	Time: _____

- *Spill Cause:** Pipe Structural Problem/Failure Debris Operator Error
 Flow Exceeded Capacity Rainfall Exceeded Design Pump Station Failure
 Grease Deposition (FOG) Vandalism Root Intrusion Other (specify below)

Spill cause explanation (required if spill cause is "Other"):

If spill caused by wet weather, choose size of storm: 1 Year 2 Year 5 Year 10 Year 50Year 100 Year Unknown
 Diameter of sewer pipe at the point of blockage or spill cause (if applicable): _____ inches
 Material of sewer pipe at the point of blockage or spill cause (if applicable): _____
 Estimated age of sewer pipe at the point of blockage or spill cause (if applicable): _____
 Description of terrain surrounding the point of blockage or spill cause (if applicable): Flat Mixed Steep

- *Spill Response** Cleaned up (mitigated effects of spill) Returned all or portion of spill to sanitary sewer system
Activities: Restored Flow Inspected sewer using CCTV to determine cause
 Contained all or portion of spill Other (specify below)

Explanation of spill response activities (required if spill cause is "Other"):

***Spill response completion date:** Date (MM/DD/YYYY): _____ Time: _____

Health warnings posted: Yes No

Visual inspection results from impacted receiving water: _____

***Name of impacted beach(es):** _____ **Name of impacted surface water(s):** _____ **Is there an ongoing investigation?:** Yes No
 (Enter NA if not applicable) (Enter NA if not applicable)

- *Water Quality** Dissolved oxygen No water quality samples taken
Samples Not applicable to this spill Other chemical indicator(s)-specify below
Analyzed For: Biological indicator(s)-specify below Other (specify below)

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

- *Water Quality** County Health Agency No water quality samples taken
Results RWQCB Not applicable to this spill
Reported To: None of the above

Explanation of water quality results reported to (required if water quality results reported to is "Other"):

- *Spill** Repaired sewer Added sewer to preventative maintenance program
Corrective Plan rehabilitation or replacement of sewer Adjusted schedule/method of preventative maintenance
Action Taken: Enforcement action against FOG source Other (specify below)

Explanation of corrective action taken (required if spill corrective action is "Other"):

Appendix VII-G: Wastewater Collection System CIWQS Reporting Guidelines

ATTACHMENT A

STATE WATER RESOURCES CONTROL BOARD MONITORING AND REPORTING PROGRAM NO. 2006-0083-DWQ (AS REVISED BY ORDER NO. WQ 2008-0002-EXEC)

STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER SYSTEMS

This Monitoring and Reporting Program (MRP) establishes monitoring, record keeping, reporting and public notification requirements for Order No. 2006-2003-DWQ, "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems." Revisions to this MRP may be made at any time by the Executive Director, and may include a reduction or increase in the monitoring and reporting.

NOTIFICATION

Although State and Regional Water Board staff do not have duties as first responders, this Monitoring and Reporting Program is an appropriate mechanism to ensure that the agencies that do have first responder duties are notified in a timely manner in order to protect public health and beneficial uses.

1. For any discharges of sewage that results in a discharge to a drainage channel or a surface water, the Discharger shall, as soon as possible, but not later than two (2) hours after becoming aware of the discharge, notify the State Office of Emergency Services, the local health officer or directors of environmental health with jurisdiction over affected water bodies, and the appropriate Regional Water Quality Control Board.
2. As soon as possible, but no later than twenty-four (24) hours after becoming aware of a discharge to a drainage channel or a surface water, the Discharger shall submit to the appropriate Regional Water Quality Control Board a certification that the State Office of Emergency Services and the local health officer or directors of environmental health with jurisdiction over the affected water bodies have been notified of the discharge.

A. SANITARY SEWER OVERFLOW REPORTING

SSO Categories

1. Category 1 - All discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system that
 - A. Equal or exceed 1000 gallons, or
 - B. Result in a discharge to a drainage channel and/or surface water; or
 - C. Discharge to a storm drainpipe that was not fully captured and returned to the sanitary sewer system.

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

ORDER NO. WQ 2008-0002-EXEC

ADOPTING AMENDED MONITORING AND REPORTING REQUIREMENTS FOR
STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR SANITARY SEWER
SYSTEMS

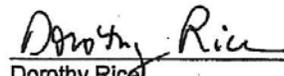
The State of California, Water Resources Control Board (State Water Board) finds:

1. The State Water Board is authorized to prescribe statewide general waste discharge requirements for categories of discharges that involve the same or similar operations and the same or similar types of waste pursuant to Water Code 13263, subdivision (i).
2. The State Water Board on May 2, 2006, adopted Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Order No. 2006-0003-DWQ, pursuant to that authority.
3. The State Water Board on May 2, 2006, adopted Monitoring and Reporting Requirements to implement the General Waste Discharge Requirements for Sanitary Sewer Systems.
4. State Water Board Order No. 2006-0003-DWQ, paragraph G.2., and the Monitoring and Reporting Requirements, both provide that the Executive Director may modify the terms of the Monitoring and Reporting Requirements at any time.
5. The time allowed in those Monitoring and Reporting Requirements for the filing of the initial report of an overflow is too long to adequately protect the public health and safety or the beneficial uses of the waters of the state when there is a sewage collection system spill. An additional notification requirement is necessary and appropriate to ensure the Office of Emergency Services, local public health officials, and the applicable regional water quality control board are apprised of a spill that reaches a drainage channel or surface water.
6. Further, the burden of providing a notification as soon as possible is de minimis and will allow response agencies to take action as soon as possible to protect public health and safety and beneficial uses of the waters of the state.

IT IS HEREBY ORDERED THAT:

Pursuant to the authority delegated by Resolution No. 2002-0104 and Order No. 2006-0003-DWQ, the Monitoring and Reporting Requirements for Statewide General Waste Discharge Requirements for Sanitary Sewer Systems No. 2006-0003-DWQ is hereby amended as shown in Attachment A, with new text indicated by double-underline.

Dated: February 20, 2008


Dorothy Rice
Executive Director

2. Category 2 – All other discharges of sewage resulting from a failure in the Enrollee's sanitary sewer system.
3. Private Lateral Sewage Discharges – Sewage discharges that are caused by blockages or other problems within a privately owned lateral.

SSO Reporting Timeframes

4. Category 1 SSOs – Except as provided above, all SSOs that meet the above criteria for Category 1 SSOs must be reported as soon as: (1) the Enrollee has knowledge of the discharge, (2) reporting is possible, and (3) reporting can be provided without substantially impeding cleanup or other emergency measures. Initial reporting of Category 1 SSOs must be reported to the Online SSO System as soon as possible but no later than 3 business days after the Enrollee is made aware of the SSO. Minimum information that must be contained in the 3-day report must include all information identified in section 9 below, except for item 9.K. A final certified report must be completed through the Online SSO System, within 15 calendar days of the conclusion of SSO response and remediation. Additional information may be added to the certified report, in the form of an attachment, at any time.

The above reporting requirements are in addition to do not preclude other emergency notification requirements and timeframes mandated by other regulatory agencies (local County Health Officers, local Director of Environmental Health, Regional Water Boards, or Office of Emergency Services (OES)) or State law.

5. Category 2 SSOs – All SSOs that meet the above criteria for Category 2 SSOs must be reported to the Online SSO Database within 30 days after the end of the calendar month in which the SSO occurs (e.g. all SSOs occurring in the month of January must be entered into the database by March 1st).
6. Private Lateral Sewage Discharges – All sewage discharges that meet the above criteria for Private Lateral sewage discharges may be reported to the Online SSO Database based upon the Enrollee's discretion. If a Private Lateral sewage discharge is recorded in the SSO Database, the Enrollee must identify the sewage discharge as occurring and caused by a private lateral, and a responsible party (other than the Enrollee) should be identified, if known.
7. If there are no SSOs during the calendar month, the Enrollee will provide, within 30 days after the end of each calendar month, a statement through the Online SSO Database certifying that there were no SSOs for the designated month.
8. In the event that the SSO Online Database is not available, the enrollee must fax all required information to the appropriate Regional Water Board office in

accordance with the time schedules identified above. In such event, the Enrollee must also enter all required information into the Online SSO Database as soon as practical.

Mandatory Information to be Included in SSO Online Reporting

All Enrollees must obtain SSO Database accounts and receive a "Username" and "Password" by registering through the California Integrated Water Quality System (CIWQS). These accounts will allow controlled and secure entry into the SSO Database. Additionally, within thirty (30) days of receiving an account and prior to recording SSOs into the SSO Database, all Enrollees must complete the "Collection System Questionnaire", which collects pertinent information regarding an Enrollee's collection system. The "Collection System Questionnaire" must be updated at least every 12 months.

At a minimum, the following mandatory information must be included prior to finalizing and certifying an SSO report for each category of SSO:

9. Category 2 SSOs:

- A. Location of SSO by entering GPS coordinates;
- B. Applicable Regional Water Board, i.e. identify the region in which the SSO occurred;
- C. County where SSO occurred;
- D. Whether or not the SSO entered a drainage channel and/or surface water;
- E. Whether or not the SSO was discharged to a storm drain pipe that was not fully captured and returned to the sanitary sewer system;
- F. Estimated SSO volume in gallons;
- G. SSO source (manhole, cleanout, etc.);
- H. SSO cause (mainline blockage, roots, etc.);
- I. Time of SSO notification or discovery;
- J. Estimated operator arrival time;
- K. SSO destination;
- L. Estimated SSO end time; and
- M. SSO Certification. Upon SSO Certification, the SSO Database will issue a Final SSO Identification (ID) Number.

10. Private Lateral Sewage Discharges:

- A. All information listed above (if applicable and known), as well as;
- B. Identification of sewage discharge as a private lateral sewage discharge; and
- C. Responsible party contact information (if known).

11. Category 1 SSOs:

- A. All information listed for Category 2 SSOs, as well as;
- B. Estimated SSO volume that reached surface water, drainage channel, or not recovered from a storm drain;
- C. Estimated SSO amount recovered;
- D. Response and corrective action taken;
- E. If samples were taken, identify which regulatory agencies received sample results (if applicable). If no samples were taken, NA must be selected.
- F. Parameters that samples were analyzed for (if applicable);
- G. Identification of whether or not health warnings were posted;
- H. Beaches impacted (if applicable). If no beach was impacted, NA must be selected;
- I. Whether or not there is an ongoing investigation;
- J. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;
- K. OES control number (if applicable);
- L. Date OES was called (if applicable);
- M. Time OES was called (if applicable);
- N. Identification of whether or not County Health Officers were called;
- O. Date County Health Officer was called (if applicable); and
- P. Time County Health Officer was called (if applicable).

Reporting to Other Regulatory Agencies

These reporting requirements do not preclude an Enrollee from reporting SSOs to other regulatory agencies pursuant California state law. These reporting requirements do not replace other Regional Water Board telephone reporting requirements for SSOs.

1. The Enrollee shall report SSOs to OES, in accordance with California Water Code Section 13271.

Office of Emergency Services
Phone (800) 852-7550

2. The Enrollee shall report SSOs to County Health officials in accordance with California Health and Safety Code Section 5410 et seq.
3. The SSO database will automatically generate an e-mail notification with customized information about the SSO upon initial reporting of the SSO and final certification for all Category 1 SSOs. E-mails will be sent to the appropriate County Health Officer and/or Environmental Health Department if the county desires this information, and the appropriate Regional Water Board.

B. Record Keeping

1. Individual SSO records shall be maintained by the Enrollee for a minimum of five years from the date of the SSO. This period may be extended when requested by a Regional Water Board Executive Officer.
2. Omitted.]
3. All records shall be made available for review upon State or Regional Water Board staff's request.
4. All monitoring instruments and devices that are used by the Enrollee to fulfill the prescribed monitoring and reporting program shall be properly maintained and calibrated as necessary to ensure their continued accuracy;
5. The Enrollee shall retain records of all SSOs, such as, but not limited to and when applicable:
 - a. Record of Certified report, as submitted to the online SSO database;
 - b. All original recordings for continuous monitoring instrumentation;
 - c. Service call records and complaint logs of calls received by the Enrollee;
 - d. SSO calls;
 - e. SSO records;
 - f. Steps that have been and will be taken to prevent the SSO from recurring and a schedule to implement those steps.
 - g. Work orders, work completed, and any other maintenance records from the previous 5 years which are associated with responses and investigations of system problems related to SSOs;
 - h. A list and description of complaints from customers or others from the previous 5 years; and
 - i. Documentation of performance and implementation measures for the previous 5 years.
6. If water quality samples are required by an environmental or health regulatory agency or State law, or if voluntary monitoring is conducted by the Enrollee or its agent(s), as a result of any SSO, records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical technique or method used; and,
 - f. The results of such analyses.

C. Certification

1. All final reports must be certified by an authorized person as required by Provision J of the Order.
2. Registration of authorized individuals, who may certify reports, will be in accordance with the CIWQS' protocols for reporting.

Monitoring and Reporting Program No. 2006-0003 will become effective on the date of adoption by the State Water Board. The notification requirements added by Order No. WQ 2008-0002-EXEC will become effective upon issuance by the Executive Director.

CERTIFICATION

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of an order amended by the Executive Director of the State Water Board.



Jeanne Townsend
Clerk to the Board

Appendix VII-H: Wastewater Collection System Failure Analysis Form



Wastewater Collection System Failure Analysis Form

Condition 4 Condition 3 Condition 2 / Private Spill

Incident Report Form # _____

Prepared By: _____

SSO/Backup Information:

Event Date: _____ Event Time: _____

Address: _____

Volume Spilled: _____ gallons Volume Recovered: _____ gallons

Cause: _____

Correction Notice Issued Notify County Health Notify R.W.Q.C.B.

Historical Data Reviewed : By: _____ Date: _____

Summary of Historical SSOs/Backups/Other Problems:

Date	Cause	Date Last Cleaned	Crew

Summary of CCTV Mainline Information:

CCTV Inspection Date: _____

CCTV Tape Reviewed by: _____ Date: _____

Observations: _____ Grease Roots Defective Wye

Follow up CCTV Schedule: 30 Days 60 Days 90 Days 120 Days

Recommendations: ___ No changes or repairs required

Maintenance equipment:

___ Mechanical Rodder ___ Hydrojetter Root Cutter ___ Hydrojetter Chain Tip ___ Hydrojetter Maintenance Nozzle

___ Add to 2 X Priority List ___ Add to 3 X Priority List ___ Repair _____

___ Add to Capital Improvement Rehabilitation/Replacement List

Comments: _____

Supervisor Review _____

Superintendent Review _____

Appendix VII-I: Warning Sign

City of Santa Barbara
Public Works Department

CAUTION

PUBLIC HEALTH NOTICE

As a result of Sewer Discharge, this immediate area may contain bacteria that may be harmful to your health.

AVOID CONTACT!

This notice is issued pursuant to the California Health and Safety Code, in cooperation with the Santa Barbara County Environmental Health Services and the California Regional Water Quality Control Board.

This Notice is to remain posted for 72 hours.

For information, call:
City of Santa Barbara
Public Works Department
Water Resources Division
(805) 564-5413



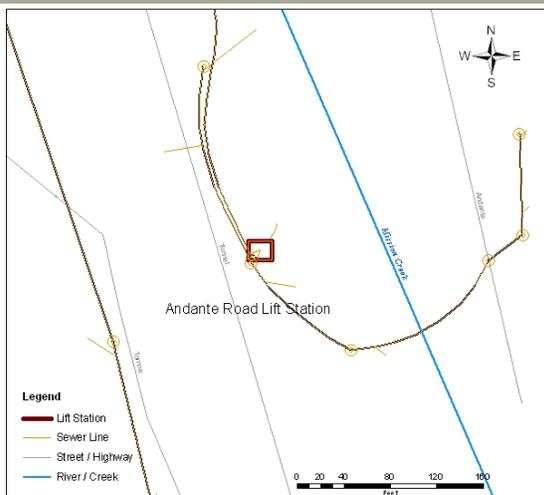
Posted: _____ Time: _____

By: _____

Appendix VII-J: Wastewater Lift Stations/Emergency Response Plan

Andante Road Lift Station

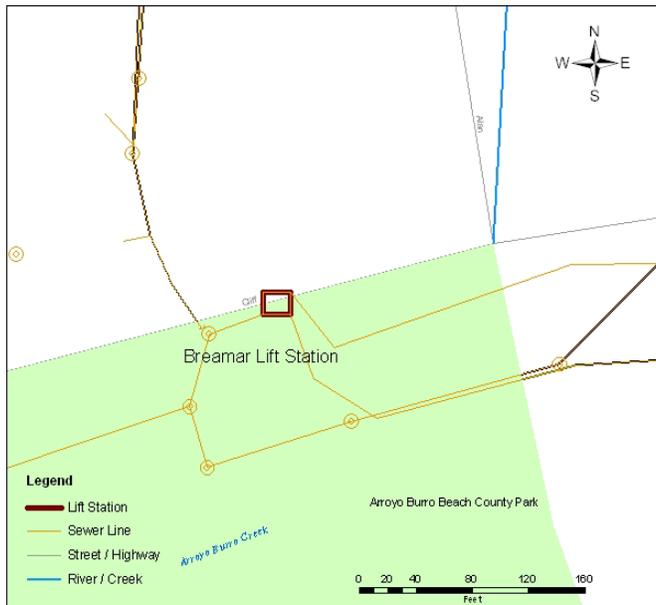
Location:	960 Andante Road		
Date of construction:	1986		
Number of lots served:	8		
Type of station:	Grinder Pumps		
Pump make:	Hydromatic		
Pump size:	2"		
Number of Pumps:	2		
Flow rate:	43 GPM		
Motor:	Make: Aurora	Size: 3 HP	
Wet well:	Size: H 12' x DIA 4'	Volume: 1,127 GALS	
Average Inflow:	2.5 GPM	Date/Time: 7/30/03 10:00 am	
Detention time:	7.5 Hrs		
Station Control:	Floats		
Emergency generator:	NA		
Fuel consumption:	NA		
Emergency pump bypass:	No		
Water way effected by failure:	Mission Creek		
Force main:	Type: 2" P.V.C.	Length: 470'	Year: 1986



Emergency Operating Procedures for Andante Road-- None

Breamar Lift Station

Location:	1 Alan Road		
Date of construction:	1962		
Number of lots served:	870		
Type of station:	Centrifugal Pumps		
Pump make:	Smith and Loveless		
Pump size:	8"		
Number of Pumps:	2		
Flow rate:	1000 GPM		
Motor:	Marathon Motors 100 HP		
Wet well:	L 15' x W 8'x H 17'	Volume: 15,259 GAL	
Average Inflow:	368 GPM	Date/Time: 7/31/03 09:00	
Detention time:	42 Min		
Station Control:	S.C.A.D.A, Bubbler, Probes		
Emergency generator:	Caterpillar 350 kw		
Fuel consumption:	200 GAL Tank	Run Time: 7.5 Hrs	
Emergency pump bypass:	yes		
Water way effected by failure:	Arroyo Burro Creek		
Force main:	10" P.V.C	Length: 3100	Year: 1962
Force main:	10' Steel	Length: 3164	Year: 1994



Emergency Operating Procedures for Braemar Lift Station

Special reporting requirements: In the event an overflow exceeds 9,000 gallons, see Appendix VII-L for a list of individuals to be contacted.

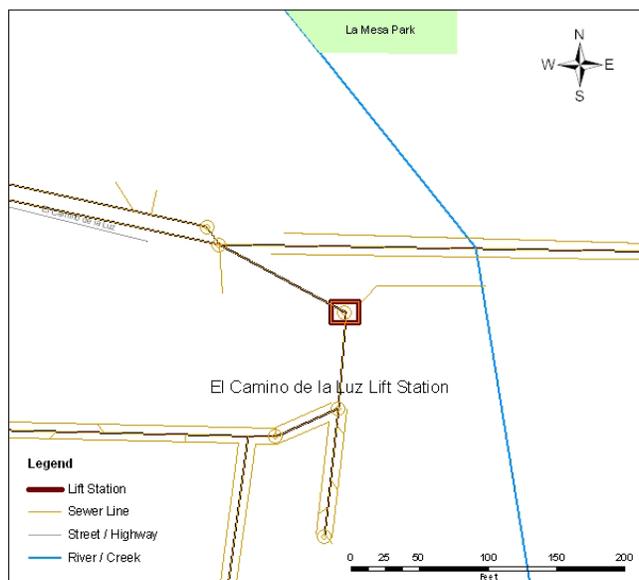
1. Check station to see if pumps have failed or generator has failed to come on.
2. Once you have checked the station and have determined that you need to bypass station get the 6" emergency bypass pumper to Braemar lift station A.S.A.P.
3. Put #1 pump & #2 pump in the off position, put compressor in the off position.
4. The 6" emergency bypass connections are located on the side of the station and can be accessed from Cliff drive. Align pump so right tire touches seam between concrete gutter and pavement.
5. Before disconnecting from truck, block wheels and connect hoses to station. Facing station from Cliff drive pumper suction is on the right side; pumper discharge is on the left side. Suction for station is on the left side and discharge is on the right side. Connect pump accordingly. Disconnect bypass pumper from truck.
6. Close surge tank valve (marked surged tank valve) close station main valve. (marked station main valve)
7. Start 6" bypass pumper let it idle, once bypass pumper is warmed up, open bypass valve. (marked bypass valve)
8. Increase bypass pump speed to just over 1600 RPMs someone must be in front of level indicator to make sure pump is pumping. Once bypass pump is pumping it is important to watch level indicator you need to keep a constant level, you may have to lower or raise your RPMs depending on the flow.
9. Once station has been bypassed you must notify control 4 and advise of the situation.
10. Once station is back on line make sure to close bypass valve, open surge tank valve and station main valve, turn both pumps to auto position and the compressor to the auto position.
11. Disconnecting bypass pumper: using 4" blue hose kept in locker. Drain discharge side and suction side of bypass pumper into wet well, disconnect and rinse hoses.

Equipment needed:

6" bypass pumper, 4 – 6" hoses

El Camino De La Luz Lift Station

Location:	1901 El Camino De La Luz		
Date of construction:	1975		
Number of lots served:	232		
Type of station:	Centrifugal Pumps		
Pump make:	Fairbanks and Morse		
Pump size:	4"		
Number of pumps	2		
Flow rate:	150 GPM		
Motor:	Marathon	Size: 3 HP	
Wet well:	Size: H 15'9"x DIA 5'	Volume: 2,348 GAL	
Average Inflow:	98 GPM	Date/Time: 7/31/03 08:00	
Detention time:	2 Hrs 25 Mins		
Station Control:	S.C.A.D.A, Transducers, Floats		
Emergency generator:	Caterpillar	Size: 60kw	
Fuel consumption:	105 GAL	Run Time: 19.5 hrs	
Emergency pump bypass:	Yes		
Water way effected by failure:	Lighthouse Creek		
Force main:	Type: 4" D.I.P.	Length: 98'	Year: 1975



Emergency Operating Procedures for El Camino De La Luz Lift Station

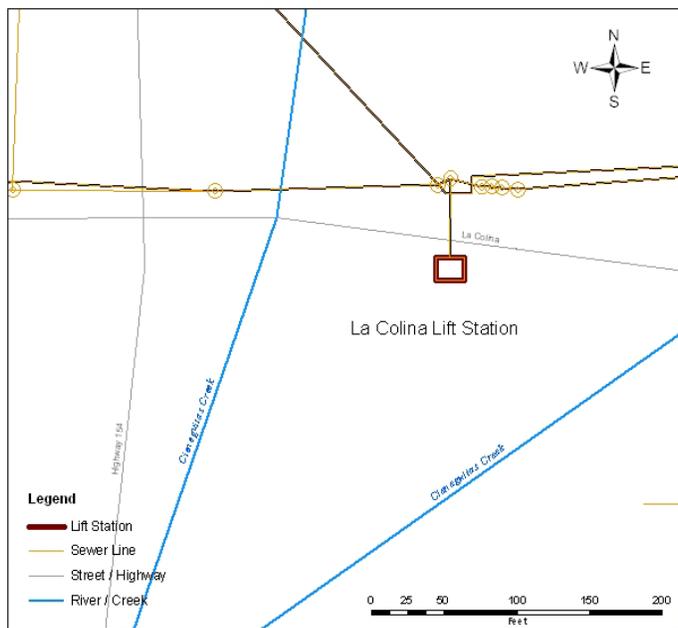
1. Check to see if pumps are running, if pumps are running but can not keep up with the flow go ahead and start to set up bypass pumper (e.g. wet weather condition) or if pumps fail.
2. Set up bypass pumper next to wet well.
3. Hook up foot valve to 3" green hose put green hoses together, fill green hoses up with water, fill bypass pumper up with water using water hose at station, hook up hoses to bypass pumper. (Make sure all camlock fittings have a rubber gaskets)
4. Hook up 3" discharge hose to bypass pumper discharge side of the pump; make sure the end of the discharge line is in the manhole.
5. Start bypass pumper let it idle (make sure somebody is watching discharge line going into manhole) once you have checked the manhole increase RPMs on pumper.
6. Keep an eye on level indicator, once you see the level going down start to lower RPMs and try to keep a constant level with the bypass pumper. (If pump is not pumping you may have lost prime, you must repeat step 3 again.
7. Once you have a constant level keep an eye on the level indicator, and the fuel level on the bypass pumper. (Notify control 4 and advise that you are by- passing the station.)
8. Once station is operating on its own, break down the emergency pumper and hoses. You must take the suction side of the pump apart and pull the check valve apart and let it drain in to the wet well, move pumper close to wet well and take the discharge side of the pump apart and let it drain into wet well. Make sure you rinse hoses and pumper off before putting away.

Equipment needed:

- 3" Bypass pumper
- 2 – 3" Green hoses
- 1 – 3" Foot valve
- 109' of discharge hose

La Colina Lift Station

Location:	4001 La Colina Road		
Date of construction:	1957		
Number of lots served:	140		
Type of station:	Centrifugal Pumps		
Pump make:	Smith and Loveless		
Pump size:	4'		
Number of Pumps:	2		
Flow rate:	400 GPM		
Motor:	Smith and Loveless		
Wet well:	Size: L 17'9" x W 7' x H 11'	Volume: 10,315 GALS	
Average Inflow: 95 GPM	Rate: 95 GPM	Date/Time: 7/31/03 11:00	
Detention time:	2 Hrs		
Station Control:	S.C.A.D.A., Transducers, Floats		
Emergency generator:	Make: Caterpillar	Size: 60 kw	
Fuel consumption:	105 GAL	Run Time: 19.5 Hrs	
Emergency pump bypass:	Yes		
Water way effected by failure:	Cienquitas Creek		
Force main:	Type: 8" D.I.P.	Length: 3,175'	Year: 1957



Emergency Operating Procedures for La Colina Lift Station

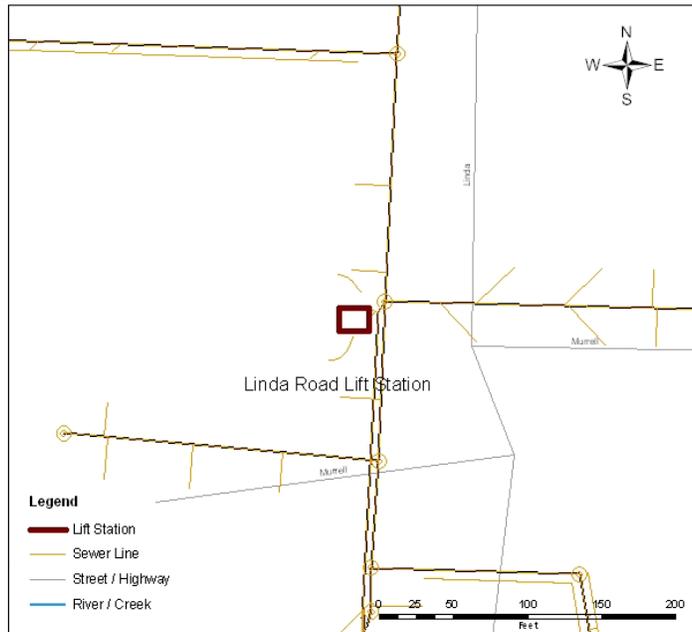
1. Check to see if station generator or pumps have failed.
2. If station has no power or pumps have failed, you will need to set up 4" emergency bypass pumper.
3. Put #1 & #2 pump in the off position.
4. Align 4" blue pumper along side the curb and gutter facing hwy 154 bridge.
5. Close station main valve.
6. Hook up 2- 4" black discharge hose to bypass lift station bypass in vault next to fence, hook up suction side hoses, put 4" foot valve on suction side of hose, put suction side hoses into the wet well closest to pumper. Fill up suction side hose with water once filled with water hook up to suction side of pump. Fill up bypass pumper with water once bypass pumper is full of water hook up discharge side hoses to bypass pumper.
7. Open lift station bypass valve slowly. (Station bypass valve)
8. Start bypass pumper let it idle (make sure somebody is watching level indicator on panel) raise RPMs, open discharge valve on bypass pumper. Watch level indicator. (If bypass pumper is not pumping you may have to prime it again, fill suction side and discharge side with water.)
9. Keep an eye on level indicator, once you see the level going down start to lower RPMs and try to keep a constant level with the bypass pumper.
10. Once you have a constant level keep an eye on the level indicator, and the fuel level on the bypass pumper. (Notify control 4 and advise that you are bypassing the station.)
11. Once station is operating on its own, break down the emergency bypass pumper and hoses. Drain suction side of pump into the wet well. Drain discharge side of pumper into wet well.

Equipment needed:

- 4" - Bypass pumper (Gorman rump)
- 5 - 4" Black bypass hoses
- 1 - 4" Foot valve

Linda Road Lift Station

Location:	312 Linda Rd		
Date of construction:	2002		
Number of lots served:	141		
Type of station:	Submersible		
Pump make:	Vaughan		
Pump size:	4"		
Number of Pumps:	2		
Flow rate:	150 GPM		
Motor:	Make: Reliance	Size: 5 HP	
Wet well:	Size: H 15' x DIA 6'	Volume: 3,382 GALS	
Average Inflow:	Rate: 2.8 GPM	Date/Time: 7/31/03 08:27	
Detention time:	3 Hrs		
Station Control:	S.C.A.D.A., Transducers, Floats		
Emergency generator:	Make: Caterpillar	Size: 60 kw	
Fuel consumption:	Capacity: 105 Gals	Run Time: 19.5 Hrs	
Emergency pump bypass:	Yes		
Water way effected by failure:	Arroyo Burro Creek		
Force main:	Type: 4" H.D.P.E	Length: 555'	Year: 2002



Emergency Operating Procedures for Linda Road Lift Station

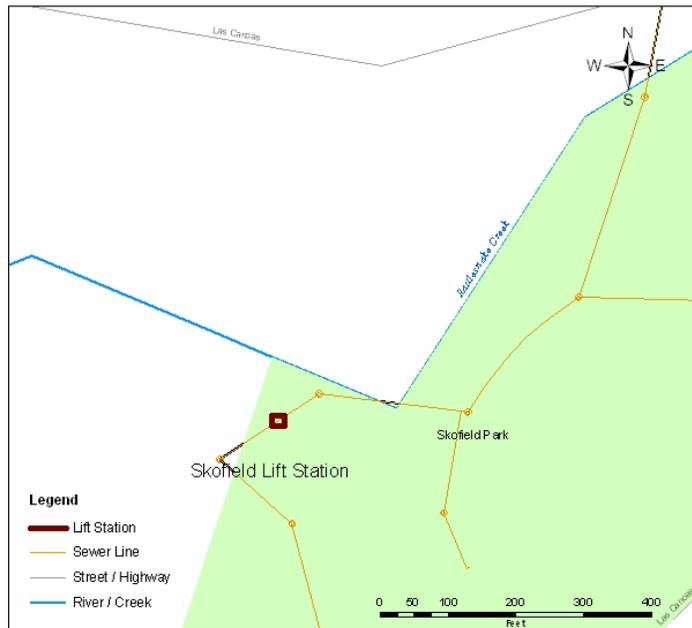
1. Check to see if pumps have failed, if pumps fail set up emergency bypass pumper.
2. Turn both pumps to the off position.
3. Set up 3" bypass pumper next to wet well.
4. Hook up foot valve to 3" green hose put green hoses together, fill green hoses up with water, fill bypass pumper up with water using water hose at station, hook up hoses to bypass pumper. (Make sure all camlock fittings have a rubber gaskets)
5. Hook up 3" discharge hose to bypass force main in dry well.
6. When ready to bypass station you must close both plug valves pump #1 and pump #2 then open 4" force main plug valve.
7. Start bypass pumper let it idle once you have checked the level indicator increase RPMs on pumper.
8. Keep an eye on level indicator, once you see the level going down start to lower RPMs and try to keep a constant level with the bypass pumper. (If pump is not pumping you may have lost prime, you must repeat step 4 again.
9. Once you have a constant level keep an eye on the level indicator, and the fuel level on the bypass pumper. (Notify control 4 and advice that you are by- passing the station.)
10. Once station is able to operate on its own, shut down emergency pumper, close 4" force main plug valve, open 2" pvc drain line and drain 3" bypass hose, open pump#1 plug valve then open #2 pump plug valve.
11. Break down the emergency pumper and hoses. You must take the suction side of the pump apart and pull the check valve apart and let it drain in to the wet well, make sure you rinse hoses and pumper off before putting away.

Equipment needed:

- 3" Bypass pumper
- 4 – 3" Green hoses
- 1 – 3" Foot valve

Skofield Lift Station

Location:	1819 Las Canoas Road		
Date of construction:	1967		
Number of lots served:	7		
Type of station:	Centrifugal Pumps		
Pump make:	Fairbanks and Morse		
Pump size:	4"		
Number of Pumps:	2		
Flow rate:	250 GPM		
Station Control:	S.C.A.D.A., Transducers, Floats		
Emergency generator:	NA		
Fuel consumption:	NA		
Emergency pump bypass:	Yes		
Motor:	Make: U.S. Motor	Size: 30 HP	
Wet well:	H 9'5" x DIA 5'	Volume: 1,379 GAL	
Average Inflow:	12 GPM	Date/Time: 7/30/03 09:00	
Detention time:	1.9 Hrs		
Water way effected by failure:	Mission Creek		
Force main:	Type: 6" C.I.P.	Length: 471'	Year: 1967

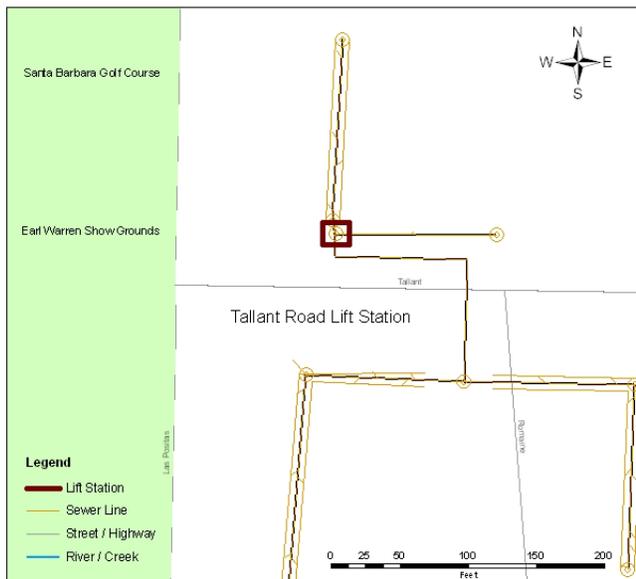


Emergency Operating Procedures for Skofield Lift Station

1. Check to see if station has power, if station has no power or pumps have failed.
2. Turn both pumps to the off position.
3. Get vacuum truck out to vacuum out wet well.
4. Notify control 4 and advise that you are at the station.
5. Continue to vacuum out wet well on a as needed basis until pumps have been repaired or power is restored
6. Once station has power or pumps are operating on there own turn both pumps to auto position, call control and notify that station is back on line

Tallant Road Lift Station

Location:	524 Tallant Rd		
Date of construction:	1999		
Number of lots served:	6		
Type of station:	Submersible		
Pump make:	Flyght		
Pump size:	2"		
Number of Pumps:	2		
Flow rate:	100 GPM		
Motor:	Make: Flyght	Size: 1.9 HP	
Wet well:	H 8' x DIA 4'	Volume: 751 GALS	
Average Inflow:	2.5 GPM	Date/Time: 7/31/03 09:30	
Detention time:	5 Hrs		
Station Control:	S.C.A.D.A., Transducers, Floats		
Emergency generator:	NA		
Fuel consumption:	NA		
Emergency pump bypass:	Yes		
Water way effected by failure:	Mission Creek		
Force main:	Type: 2" H.D.P.E.	Length: 190'	Year: 1999

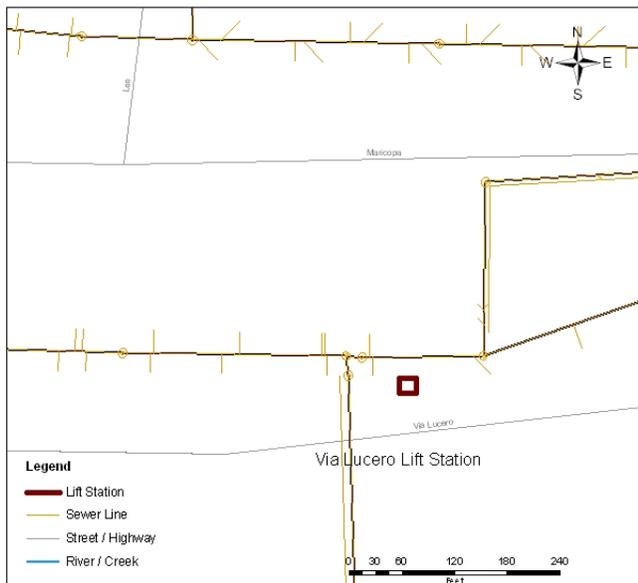


Emergency Operating Procedures for Tallant RoadLift Station

1. Check to see if station has power, if station has no power or pumps fail.
2. Turn both pumps to the off position.
3. Get vacuum truck out to vacuum out wet well.
4. Notify control 4 and advise that you are at the station.
5. Continue to vacuum out wet well on an as needed basis until pumps have been repaired or power is restored.
6. Once station has power or pumps are operating on there own turn both pumps to auto position, call control 4 and notify that station is back on line.

Via Lucero Lift Station

Location:	3959 Via Lucero		
Date of construction:	1962		
Number of lots served:	239		
Type of station:	Centrifugal Pumps		
Pump make:	Smith and Loveless		
Pump size:	4"		
Number of Pumps:	2		
Flow rate:	400 GPM		
Motor:	Make: General Electric	Size: 15 HP	
Wet well:	H 13'6"x DIA 8'	Volume: 5,073 GAL	
Average Inflow:	124 GPM	Date/Time: 7/31/03 11:00	
Detention time:	1 Hr		
Station Control:	S.C.A.D.A, Bubbler		
Emergency Generator:	NA		
Fuel consumption:	NA		
Emergency pump bypass:	Yes		
Water way effected by failure:	San Roque Creek		
Force main:	Type: 6" C.I.P.	Length: 182'	Year: 1962



Emergency Operating Procedures for Via Lucero Lift Station

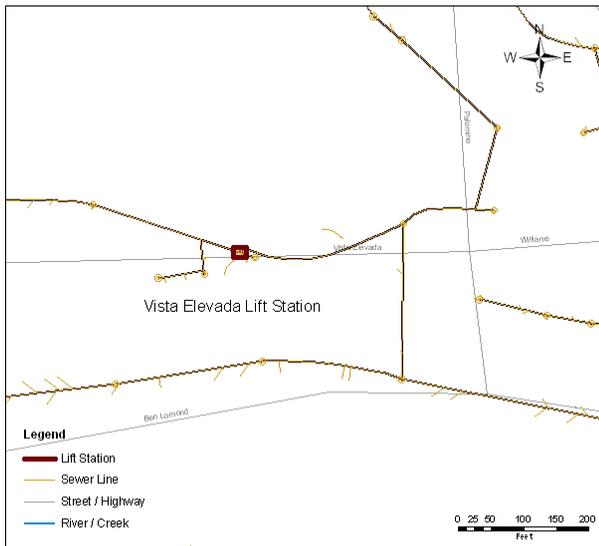
1. Check to see if station has power or pumps have failed.
2. If station has no power or pumps have failed, you will need to set up 4" emergency bypass pumper.
3. Put #1 & #2 pump in the off position.
4. Align 4" blue pumper along side the curb and gutter facing down hill.
5. Hook up 1- 4" black discharge hose to bypass lift station bypass in dry well, hook up suction side hoses, put 4" foot valve on suction side of hose, put suction side hoses in to the wet well. Fill up suction side hose with water once filled with water hook up to suction side of pump. Fill up bypass pumper with water once bypass pumper is full of water hook up discharge side hoses.
6. Open lift station bypass valve slowly.
7. Start bypass pumper let it idle. (Make sure somebody is watching level indicator on panel.) raise RPMs, open discharge valve on bypass pumper. Watch level indicator. (If bypass pumper is not pumping you may have to prime it again, fill suction side and discharge side with water.)
8. Keep an eye on level indicator, once you see the level going down start to lower RPMs and try to keep a constant level with the bypass pumper.
9. Once you have a constant level, keep an eye on the level indicator, and the fuel level on the bypass pumper. (Notify control 4 and advise that you are by- passing the station.)
10. Once station is operating on its own, break down the emergency bypass pumper and hoses. Drain suction side of pump into the wet well. Drain discharge side of pumper in dry well by using 3" blue hose.

Equipment needed:

- 4" - Bypass pumper (Gorman rump)
- 4 – 4" Black bypass hoses
- 1 – 4" Foot valve

Vista Elevada Lift Station

Location:	2826 Vista Elevada		
Date of construction:	1986		
Number of lots served:	11		
Type of station:	Grinder Pumps		
Pump make:	Hydromatic		
Pump size:	2		
Number of Pumps:	2		
Flow rate:	43 GPM		
Motor:	Make: Aurora	Size: 3 HP	
Wet well:	H 12' x DIA 4'	Volume: 1,127 GALS	
Average flow:	2.5 GPM	Date/Time: 7/30/03 09:30	
Detention time:	7.5 Hrs		
Station Control:	Floats		
Emergency generator:	NA		
Fuel consumption:	NA		
Emergency pump bypass:	No		
Water way effected by failure:	Mission Creek		
Force main:	Type: 2" P.V.C.	Length: 296'	Year: 1986



Emergency Operating Procedures for Vista Elevada Lift Station

1. Check to see if station has power, if station has no power or pumps have failed
2. Turn both pumps to the off position.
3. Get vacuum truck out to vacuum out wet well.
4. Continue to vacuum out wet well on a as needed basis until pumps have been repaired or power is restored
5. Once station has power or pumps are operating on their own turn both pumps to auto position.

Appendix VII-K: Arroyo Burro / Breamar Lift Station

NOTIFICATION PROCEDURES



City of Santa Barbara
Public Works

SUBJECT: ARROYO BURRO CREEK / BREAMAR LIFT STATION OVERFLOW REPORTING REQUIREMENTS.

In the event of an overflow exceeds 9,000 gallons, the following individuals shall be contacted.

State Water Resources Control Board

Contact Person – **Todd Stanley**
(805) 542-4769
e-mail: clacaro@waterboardsca.gov

Central Coast Harvesters

Contact Person - **Bernard Friedman**
(805) 886-1283 (cell)

Certified Commercial Harvesters.

Contact Person - **Justin Mezey**
(805) 452-3915 (cell phone)
(805) 898-5300 (pager)

Preharvest Shellfish Sanitation Unit

Contact Person – **Peter Krottje**
(510) 412-4638 (work)
(510) 932-4487 (cell phone)
Contact Person - **Gregg Langlois**
(510) 412-4635 (work)
(510) 750-2554 (cell phone)
Contact Person - **Marc Commandatore**
(510) 412-4631 (work)
(916) 997-4186 (cell phone)

If unable to contact the PSSU, call:

Grower Information Line (GIL). Leave message with general message board or the Santa Barbara message board.

(510) 412-4644

State Department of Public Health

Appendix VII-L: Water Front Department Notification Procedures



*City of Santa Barbara
Waterfront Department*

Memorandum

DATE: December 14, 2007
TO: Harbor Patrol Officers
FROM: Steve McCullough, Captain/Harbor Patrol Supervisor
SUBJECT: Notifications for Sewage and Hazardous Materials spills

Notify the following agencies in the event of sewage or hazardous materials spill.

1. City Dispatch for Fire and/or Police Departments as needed. 897-2410 or 911
2. Public Works Department for sewage spills from sewer lines and facilities. 564-5413
3. OES-California State Office of Emergency Services. Get a Control Number. 1-800-852-7550
4. NRC-National Response Center. Give them the State OES Control Number, so they do not generate an additional control number. 1-800-424-8802
5. County Environmental Health. 681-4900 (bus. M-F), or 692-5723 (24-hour dispatch).
6. Lead, Supervisor, Manager and/or Waterfront Director.
7. USCG LA/LB 24-hour Operations for Marine Safety Detachment notification. 1-310-521-3800
8. Fish and Game (24-hour dispatch) 1-916-358-1300

(Replaces the January 14, 2005 memorandum)