



Scenic Pacifica  
Incorporated Nov. 22,  
1957

---

**CITY OF PACIFICA**  
**Calera Creek Water Recycling Plant**  
170 Santa Maria Avenue • Pacifica, California 94044-2506  
[www.cityofpacifica.org](http://www.cityofpacifica.org)

---

MAYOR  
Karen Ervin

MAYOR PRO TEM  
Sue Digre

COUNCIL  
John Keener  
Mary Ann Nihart  
Mike O'Neill

3/12/15

Bruce H. Wolfe, Executive Officer  
California Regional Water Quality Control Board, San Francisco Bay Region  
1515 Clay Street, Suite 1400  
Oakland, CA 94612  
ATTN: Claudia Villacorta

Dear Mr. Wolfe,

**Subject: SSMP Audit and Annual Report of Sanitary Sewer System Overflows for Calendar Year 2014**

The purpose of this letter is to report on the calendar year 2014 Sanitary Sewer System Overflows (SSOs) that occurred in the City of Pacifica sanitary sewer system during the period January 1, 2014 through December 31, 2014 and provide an audit of the Sewer System Management Plan (SSMP) for the same period. This report is submitted pursuant to the requirements included in the San Francisco Bay Regional Water Quality Control Board Letter, New Requirements for Reporting Sanitary Sewer Overflows, dated November 15, 2004 and the Statewide General WDR dated May 2, 2006.

Number and Size of SSOs

The total number of SSOs for the reporting period was nine. There were five SSOs related to wet-weather during this period. The sizes of SSOs are summarized as shown on Table 1.

**Table 1. Number of SSOs**

Size of SSO (gallons)	Number	Percent of Total by Number
Greater than or equal to 1,000	4	44%
From 100 to 999	1	11%
From 10 to 99	3	34%
Less than 10 [can include in line above]	1	11%
[Public portion of lateral ( <i>also included in above lines</i> )]		
<b>Total</b>	<b>9</b>	<b>100%</b>

The volume of spills contained and returned to the sanitary sewer system, as well as the volume reaching waters of the State is shown in Table 2.

**Table 2. Volume of SSOs**

	Volume (gallons)	Percent of Total by Volume
Total volume contained and returned to sewer system for treatment	183	>1%
Total volume reaching waters of the State	337,275	99%
Total volume not contained but not reaching waters of the State (everything else)		
<b>Total</b>	<b>337,458</b>	<b>100%</b>

On December 11, 2014 a major storm came through the San Francisco Bay Area dropping significant amounts of rainfall. On this day, the sanitary sewer system was surcharged at four spots causing SSOs. A blockage and SSO also occurred on that day which was caused by heavy flow, increased because of infiltration, knocking grease off the pipe walls at another spot in the system. Without these SSOs that occurred on December 11<sup>th</sup>, the year of 2014 would have seen a decrease in total SSOs to the lowest ever recorded, zero release of raw wastewater into waters of the State, and the lowest volume of raw wastewater overflow ever recorded.

This report does not include SSOs that occurred from private sewer service laterals within the City of Pacifica jurisdiction that were caused by conditions in privately-owned laterals or on private property. On January 1, 2012 the City Council passed a new ordinance that, among other provisions, removed any responsibility for the maintenance or repairs of any part of a sewer service lateral regardless of the location of a cleanout. The property owners are responsible for the condition and the operation of the sewer service lateral from the structure to the sewer main line in the public right-of-way.

Cause of SSOs

The following table presents the causes of the SSOs during the period of this report and of the previous five years. The distribution of SSOs by cause is shown on Table 3.

**Table 3. Causes of SSOs**

Year	Total SSOs	Roots	F.O.G.	Debris	Vandalism	Pipe Failure	Capacity	Pump Station Failure	Other
2010	20	12		5	1		1		
2011	14	9		4	1				
2012	5	5							
2013	7	2		4		1			
2014	9	3	1	1			4		

Location of SSOs

The SSOs that occurred in the City of Pacifica are spread throughout our jurisdiction and there is no general location in which they are occurring. In the northern neighborhood of Manor there were four SSOs, in the central neighborhood of Sharp Park there was one SSO, and in the southernmost neighborhood of Linda Mar there were four SSOs.

SSO Trends

The number of SSOs from a mainline in the City of Pacifica during 2014 was an increase from 2013. However, as noted above if one removes the SSOs that occurred on December 11<sup>th</sup> this would be the lowest number of SSOs ever recorded in Pacifica.

**Table 4. Mainline SSOs**

Mainline SSOs	Year	2010	2011	2012	2013	2014
	Annual Number		15	5	5	7

Under Part VI of the City’s Consent Decree the SSO Reduction Performance Goal for 2014 was 12 and we were three SSOs under our goal. The goal of the Wastewater Division is to have less than 10 SSOs during a calendar year and we were one SSO under that goal.

Sewer System Management Plan (SSMP)

Some changes were made to the SSMP in 2014 and the changes are described in this report. To view the current version of the SSMP go to:

[http://www.cityofpacifica.org/depts/wwt/waste\\_water\\_collection/sanitarvmp.asp](http://www.cityofpacifica.org/depts/wwt/waste_water_collection/sanitarvmp.asp)

SSMP Audit

*Goals*

The goals for the Collections Division of the Wastewater Department are outlined below along with a sub-bullet describing whether it was accomplished:

1. Operate the collection system in accordance with state and federal law to minimize maintenance-related backups/overflows and to reduce wet weather inflow/infiltration
  - a. Accomplished
2. Locate points of inflow and infiltration through flow measurement/television inspection and develop improvement programs for problem areas
  - a. Accomplished
    - i. Performed CCTV activities throughout the year
    - ii. During wet-weather events we performed visual inspection of areas with known infiltration
3. Continue implementation and refinement of the CMMS and GIS map
  - a. Accomplished
4. Maintain sewer evaluation television system to comply with state regulations
  - a. Accomplished
5. Continue implementing the Long Range Sanitary Sewer Capital Plan (LRSS-CIP)

- a. Accomplished and the LRSS-CIP is attached to this report
- 6. Reduce sanitary sewer overflows (SSO) to under 10
  - a. Accomplished – nine SSOs in calendar 2014
- 7. Continue to implement and evaluate chemical root control program
  - a. Accomplished – 22,000 linear feet of sewer mains were chemically treated in calendar 2014
- 8. Perform at least 90 miles of line cleaning activities
  - a. Accomplished – Over 116 miles were cleaned
- 9. Perform at least 15 miles of CCTV inspection and assessment activities
  - a. Did not accomplish – 10 miles of sewer mains were CCTV'd in calendar 2014
- 10. Continue to perform sewer main and manhole repairs identified through line cleaning and CCTV activities
  - a. Accomplished – Over 20 in-house repairs made in calendar 2014
- 11. Construct a new 10 inch force main for Brighton Pump Station
  - a. Accomplished
- 12. Complete the Force Main Condition Assessment Project
  - a. Accomplished

*Organization*

No changes were made to the organizational structure of the Collections Division and no changes were requested.

*Legal Authority*

No changes were made to our legal authority and no changes were requested. On January 1, 2012 the Pacifica City Council passed an ordinance that, among many things, placed the responsibility for maintaining and upgrading individual building sewer laterals with the property owners and required a condition assessment and potential replacement of the sewer lateral at a transfer of property event, significant structure remodel, addition of drain or fixture, and a change in water services. This was our formal private sewer lateral ordinance. Staff enforced this ordinance through the year and performed over 377 construction inspections of private sewer lateral replacements in 2014 many of which were replaced because of the private sewer lateral ordinance.

*Overflow Emergency Response Plans (OERP)*

The OERP was updated in 2014 to reflect new changes to State regulations of sanitary sewer overflows and based on some feedback from the Collections staff. DKF Solutions, the consultant that collaborated with us to produce previous OERPs, was hired to work with us in updating our current OERP. This was accomplished in March of 2014 and the crews were retrained based on the updated procedures. We successfully used the OERP for the nine SSOs during the year as well as successfully used it for some private sewer overflows.

The OERPs for the pump stations did not require any changes and none were made. These plans continue to work well for us and were partially used in the major storms that came through in December.

*Operations and Maintenance*

We have an ongoing sewer system maintenance program in which we use a power rodding truck and a hydro-jet rod truck to clean the system based on a SSO Reduction Plan schedule. A computerized asset management/maintenance system (CMMS) program was implemented in September of 2011 (ICOM3 by Redzone Robotics) and we are now scheduling our maintenance and repair activities

through the program. The SSO Reduction Plan was developed for the Division by RMC Engineering and the information from this plan was incorporated in the CMMS. The data that is aggregated in the CMMS from line cleaning activities and CCTV activities are used to update the scheduled cleaning of the system and schedule any needed repairs. In 2014 Division staff cleaned approximately 116 miles of main lines using a mechanical power rodder (53 miles) and a hydro-jetter (63 miles). Using the power rodder we cleaned at an average rate of 183 feet/hour and with the hydro-jetter we cleaned at an average rate of 357 feet/hour. The Training Program identifies as performance metrics an average of six set-ups for a workday of power rodding and 10 set-ups with the hydro-jetter. A review of our performance data shows that we averaged in 2014 a little over five set-ups with the power rodder and 9 set-ups with our hydro-jetting units.

The Division has a CCTV in-house inspection program to identify sources of potential SSOs and infiltration and inflow and in 2014 approximately 10 miles of sewer mains were televised and inspected. This was five miles under our goal and the primary reason for failing to meet this goal was due to multiple electrical and mechanical problems with our CCTV vehicle and system. The vehicle and system are aging and we will begin the planning process to replace or upgrade it in FY 2015-16 or 2016-17. An inspection and assessment of our wastewater force mains was completed in 2014 under the project management of Brown and Caldwell. The inspection and assessment showed the various pipe types of the force mains to be in satisfactory condition and the report is available upon request.

The Division has a regular sewer repair crew that performs spot repairs of main lines identified as category four or five defects through CCTV and maintenance activities, and in some cases replaces whole pipe segments of the system. In 2014 the Division performed over 20 repairs and main line replacements with this in-house crew. The total footage of in-house pipe repairs was approximately 500 feet of sewer mains. In addition, contract related repair and installation work of approximately 2,500 linear feet of sewer mains were performed. Altogether, this represents about .5 mile of sewer mains replaced in calendar year 2014 in Pacifica which is about .5% of our total system.

We continued with our root foaming program using Duke's Root Control, Inc. Approximately 22,000 feet of main lines were identified from our CMMS data and CCTV inspections as having major root intrusion issues and Duke's was contracted to root foam those pipe segments. We performed quality control CCTV activities of most of the pipe segments that were root foamed over the last few years. We observed inhibited root growth in many of the pipe segments and the ones that did not appear to have been inhibited we had Duke's Root Control come back and perform a re-treatment. Approximately 80% of the pipe segments did not require re-treatment and appeared to have the root growth inhibited in a satisfactory manner.

The Division's training program continues to be a success and along with the regular bi-weekly safety training and bi-monthly crew meetings, we had a week long training session with Tilson & Associates (T&A). The significant accomplishment of the training session with T&A was the completion of our customized standard operating procedures (SOPs) for the rod truck, sewer combination cleaner trucks, CCTV vehicle, and emergency response truck.

#### *Design and Construction Standards*

No changes were made to our design and construction standards and no changes were requested.

#### *Fats, Oils, and Grease (FOG) Program*

Staff continues to administer a FOG and Source Control Program in which we inspect the food establishments and FOG producers in Pacifica approximately once or twice a year. Two full-time

source control inspectors administer this program and they work with local businesses to identify areas of non-compliance with our ordinances and will require upgrades where needed. Any establishments out of compliance are given a formal letter requiring them to become compliant or face enforcement action.

*System Evaluation and Capacity Assurance Plan*  
Capital Plan and Master Plan Implementation

A copy of our updated LRSS-CIP is included with this report. The LRSS-CIP update included any additional condition assessment information from the CMMS and CCTV activities that had not been completed at the time the original LRSS-CIP was put together. The major projects completed in 2014 from the LRSS-CIP were the Relocation of Mainline at Sharp Park Pump Station and the Brighton Forcemain Improvement. Construction began on the Linda Mar Pump Station Generator Project and completion is expected in early 2015.

The Master Plan also identifies alternative projects to manage wet-weather related events and staff has chosen to pursue alternative 2, the design and construction of an equalization basin in the Lower Linda Mar area. RMC Engineering began the site feasibility evaluation and design of the facility and conducted a workshop with Pacifica residents as part of public outreach. The site of the equalization basin will be approved by City Council in 2015 and construction will begin shortly thereafter. The construction timeline for the basin is approximately 14 months, so if construction begins in 2015 then the projected completion date of the basin will be in 2017. Below is a table of the proposed construction timeline.

**Table 5. Equalization Basin Projected Timeline**

Construction Element	Month													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Cutter Soil Mix Wall	█	█	█											
Excavation, Rebar, and Shotcrete Placement				█	█	█	█	█	█	█	█	█		
Concrete Base											█	█		
Concrete Deck and Girders												█	█	
Diversion Pipeline			█	█	█	█								
Discharge Pipeline					█	█								
Electrical and Instrumentation										█	█	█	█	█
Mechanical										█	█	█	█	█

We have attached at the end of this report the LRSS-CIP.

*Monitoring, Measurement, and Program Modifications*

We continually perform these functions and make modifications to our programs when deficiencies are identified. This report is the formal summary of the ways in which we monitor and measure performance and the actual and potential program modifications based on our performance.

*SSMP Audits*

This report is the SSMP audit for calendar year 2014.

*Communication*

No changes were made to our Communication program. In 2014 we had public outreach meetings regarding the Peralta Road Mainline project and the equalization basin project.

Certification

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

Sincerely,

A handwritten signature in black ink, appearing to read "Joshua Cosgrove", with a long horizontal flourish extending to the right.

Joshua Cosgrove  
Assistant Superintendent, City of Pacifica

City of Pacifica

Long Range Sanitary Sewer Capital Improvement Plan - FY 2011-2032

(Updated January 2015)

Projects	Begin Date	Date Completed	Duration		Est. Cost
Linda Mar Flow Equalization	Sep-12	On-going	4-5 years	\$	<u>20,050,000.00</u>
			<b>Total</b>	<b>\$</b>	<b>20,050,000.00</b>
<b>Capacity Improvement Projects</b>					
Palmetto Mainline (Master Plan Project ID.9)	Jun-12	Sep-12	3 months	\$	376,700.00
DeSolo Mainline (Master Plan Project ID.8)*	Jul-13	Dec-13	6 months	\$	76,000.00
Arguello Mainline (Master Plan Project ID.7)*	Jul-13	Dec-13	6 months	\$	240,000.00
Milagra Mainline (Master Plan Project ID.10)	Apr-15		1 month	\$	48,000.00
Avalon Mainline (Master Plan Project ID.11)	Apr-15		1 month	\$	30,000.00
Manor Mainline (Master Plan Project ID.12)	Apr-15		1 month	\$	34,000.00
San Pedro Mainline (Master Plan Project ID.6)*	Oct-15		4 months	\$	251,000.00
Linda Mar Mainline (Master Plan Project ID.5)*	Feb-15		4 months	\$	380,000.00
Peralta Rd Mainline (Master Plan Project ID.4)*	Feb-15	On-going	4 months	\$	45,000.00
Oddstad Mainline (Master Plan Project ID.1)*	Feb-17		4 months	\$	281,000.00
Terra Nova Mainline (Master Plan Project IDs 2&3)*	Feb-17		4 months	\$	299,000.00
Linda Mar Pump Station 4th Pump (Master Plan Project ID.13B)	Feb-20		3 months	\$	<u>935,000.00</u>
			<b>Total</b>	<b>\$</b>	<b>2,995,700.00</b>
<b>Rehab and Replacement Projects</b>					
FY 2012-14 (Locations updated from condition assessment act.)	Jul-13	Dec-14	12 months	\$	1,200,000.00
FY 2014-15	Feb-15	On-going	4 months	\$	1,200,000.00
FY 2015-16	Feb-16		4 months	\$	1,200,000.00
FY 2016-17	Feb-17		4 months	\$	1,200,000.00
FY 2017-22 (@ \$1,200,000/FY) (Locations to be determined)	Feb-18		4 months/FY	\$	6,000,000.00
FY 2022-32 (@ \$1,400,000/FY) (Locations to be determined)	Feb-23		4 months/FY	\$	<u>12,000,000.00</u>
			<b>Total</b>	<b>\$</b>	<b>22,800,000.00</b>
<b>Other Collection System Projects Not Included in the Master Plan</b>					
Mainline Replacement at Avalon and Edgemar	Jan-11	Mar-11	2 months	\$	104,980.00
Sanitary Sewer Improvements at Bower Road	Nov-11	Mar-12	3 months	\$	175,370.00
Linda Mar Generator Re-habilitation (Construction Phase)	Nov-14	On-going	4 months	\$	550,000.00
Relocation of Mainline at Sharp Park Pump Station#	Feb-14	Aug-14	6 months	\$	400,000.00
Palmetto Ave Forcemain Improvements#	Feb-14	Aug-14	6 months	\$	500,000.00
Relocation of Sharp Park Forcemain##	Aug-15		3 months	\$	<u>400,000.00</u>
			<b>Total</b>	<b>\$</b>	<b>2,130,350.00</b>
<b>Notes</b>					
* Capacity Improvement Projects will be included with the Rehab and Replacement Project for that Fiscal Year				<b>Grand Total</b>	<b>\$ 47,976,050.00</b>
# Collection System Projects will be coordinated with the Palmetto Utility Undergrounding and Streetscape Projects					
## Schedule of Project will be dependent on the Redevelopment of the Beach Boulevard Property					