

# CITY of PACIFICA, WASTEWATER DEPARTMENT CALERA CREEK WATER RECYCLING PLANT 170 Santa Maria Avenue, Pacifica, California 94044-2506

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3/10/14

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 2013

The purpose of this letter is to report on the calendar year 2013 SSMP audit and the Sanitary Sewer System Overflows (SSOs) that occurred in the City of Pacifica sanitary sewer system during the period January 1, 2013 through December 31, 2013. 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 7. There were zero SSOs related to wetweather 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	1	14%		
From 100 to 999	4	57%		
From 10 to 99	2	29%		
Less than 10 [can include in line above]				
[Public portion of lateral (also included				
in above lines)]				
Total	7	100%		

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	5,128	73%
Total volume reaching waters of the State	1,872	27%
Total volume not contained but not reaching waters of the State (everything else)	-	
Total	7,000	100%

The highest volume SSO for 2013 was a 5,872 gallon spill on March 1st that involved a PG&E subcontractor drilling into one of our wastewater force mains. Of the overflow, 4,000 gallons were captured and returned to the sanitary system and 1,872 gallons went into the Pacific Ocean. Beach samples were taken as part of this incident and there were no water quality issues found in by the San Mateo County Health Lab that analyzed the samples. The affected beach in Pacifica was closed for only one day.

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
2009	22	14	1	4	1				1
2010	20	12		5	1		1	-	
2011	14	9		4	1				
2012	5	5							-
2013	7	2		4		1			

#### Location of SSOs

The SSOs that have 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 three SSOs, in the central neighborhood of Vallemar there was one SSO, and in the southernmost neighborhoods of Linda Mar and Pedro Point there were two and one SSOs respectively.

# SSO Trends

The number of SSOs from a main line in the City of Pacifica during 2013 was an increase from 2012. The total number of main line annual SSOs has significantly decreased since 2009.

Main Line SSOs	Year	2009	2010	2011	2012	2013
	Annual					
	Number	17	15	5	5	7

Under Part VI of the City's Consent Decree the SSO Reduction Performance Goal for 2012 was 13 and we were 6 SSOs under our goal. The goal of the Wastewater Division is to have less than 10 SSOs during a calendar year and we were three under that goal.

# Sewer System Management Plan (SSMP)

Wastewater staff was in the process of updating the Organization, Overflow Emergency Response Plan, Monitoring, Measurement, and Program Modifications sections of the SSMP in 2013. A number of changes have been made to those sections and they were completed in February of 2014. To view an up-to-date version of the SSMP go to: <a href="http://www.cityofpacifica.org/depts/wwt/waste\_water\_collection/sanitarymp.asp">http://www.cityofpacifica.org/depts/wwt/waste\_water\_collection/sanitarymp.asp</a>

#### **SSMP** Audit

#### 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 per 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 2013 Division staff cleaned approximately 97.8 miles of main lines using a mechanical power rodder (42.1 miles) and a hydro-jetter (55.7 miles). Using the power rodder we cleaned at an average rate of 192 feet/hour and with the hydro-jetter we cleaned at an average rate of 484 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 2013 a little over five set-ups with the power rodder and 10 set-ups with our hydro-jetting units. We have room to improve and are hopeful that the new Champion power rodder, purchased in 2013 and to be delivered in 2014, will provide us with ability to meet and then exceed our power rodding performance metrics.

The Division has a CCTV in-house inspection program to identify sources of potential SSOs and infiltration and inflow and in 2013 approximately 12 miles of sewer mains were televised and inspected. Since our CCTV inspection program was implemented we have now televised and inspected over 96 miles of sewer mains, or 100% of Pacifica's sanitary sewer system. The entire sanitary system was completed by our CDO and Consent Decree time frame of March 1, 2013. We also contracted with Brown and Caldwell to assess the condition of our wastewater force mains. This project began in 2013 and will be completed in 2014. The data that was generated has so far shown the various pipe types to be in satisfactory condition but the final report will be sent to the Regional Board in March of 2014 and any changes to our Long Range Sanitary Sewer Capital Improvement Plan (LRSS-CIP) due to this report will be made at that time as well.

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 2013 the Division performed over 40 spot repairs and main line replacements with this in-house crew. The total footage of in-house pipe repairs was approximately 1,000 feet of sewer mains. During the 2013 calendar year we contracted to replace approximately 10,000 feet of sewer mains (or 2% of our system) as part of our De Solo and Arguello mainline projects and Sewer Rehab and Replacement projects (Lower Linda Mar Project).

We continued with our root foaming program using Duke's Root Control, Inc. Approximately 30,000 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 in 2012 and 2013. 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 finalized our 20-year Financial Plan in 2013 and it incorporated data from the Master Plan and our LRSS-CIP.

# 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 project completed in 2013 from the LRSS-CIP includes the above mentioned Lower Linda Mar Project. The Linda Mar Pump Station Generator Project is still in design phase and construction is expected to begin in June of 2014. 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 design of the facility and conducted a workshop with Pacifica residents as part of public outreach.

We have attached as part of this report the January 2014 updated LRSS-CIP in PDF.

# 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 have begun working with local businesses to identify areas of non-compliance with our ordinances and require upgrades where needed. Any establishments out of compliance are given a formal letter requiring them to get into compliance or face fines. Staff began this process with the major FOG producers in Pacifica, the Linda Mar Shopping Center and the Fairmont Shopping Center, both properties owned by Kimco Realty. Kimco was sent a letter requiring a maintenance plan, drawings of the system, and a CCTV inspection of these private systems due by March 1, 2013. The report was prepared at the end of February 2013 and Kimco has complied with this requirement. We have performed a number of inspections at these properties and the maintenance plan is being followed and one establishment is in the process of installing a F.O.G. separating device to come into compliance. Other establishments have been identified as being out of compliance and we are working to get them into compliance through the above mentioned letter and possibility of a fine.

## Training Program

Staff continues to implement the training program with Tilson & Associates. In 2013 we had a week of specific training dealing with standardized pipe cleaning methods, SSO/Backup emergency response, and cleaning condition findings. We also began the process to develop standard operating procedures (SOP) for each of our maintenance and inspection equipment. We anticipate the SOPs will be completed by the end of 2014.

The safety program continues to utilize Target Safety's online PreventionLink safety courses along with group training for different types of safety functions like confined safety equipment, CPR/first aid, and traffic control. A safety training course is assigned and completed at least every two weeks.

## Overflow Emergency Response Plan (OERP)

DKF Solutions was hired to update the Division's OERP to reflect some of the recent regulatory changes and create a more effective plan. The Plan is expected to be delivered in early 2014 and DKF Solutions will provide training on it as well.

#### Private Sewer Lateral Ordinance Enforcement

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. Staff performed over 400 construction inspections of private sewer lateral replacements in 2013 many of which were replaced because of this new ordinance.

#### Areas for Improvement

#### Operations and Maintenance

Staff is constantly looking for improvement and while our primary goal is to limit SSOs to fewer than 10 per year we are not satisfied with the seven SSOs in 2013. We do believe that three of the SSOs were not preventable; the March 1<sup>st</sup> force main leak that was caused by a PG&E subcontractor drilling into the pipe, the January 10<sup>th</sup> incident we believe was caused by a private

plumbing contractor that removed a stoppage in a private sewer lateral and caused a stoppage in the City main, and the February 20<sup>th</sup> incident we believe was also caused by a private plumbing contractor that removed a stoppage in a private sewer lateral and caused a stoppage in the City main.

As far as improvements in our operations, we have purposely focused in our Training Program on more effectively cleaning our pipe segments by slowing down operations, using the appropriate tools, and coming behind the cleaning vehicles with the CCTV vehicle in a quality control/assurance function. We are still refining this program and the SOPs we are developing through our Training Program as well as the new Champion power rodder to be delivered in 2014, should help us in this endeavor.

## 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,

Joshua Cosgrove

Assistant Superintendent, City of Pacifica