

# Draft Final Technical Memorandum CIP-4

## RVSD Sewer System Assessment and Capital Improvement Planning

**Subject:** Capital Improvement Strategic Plan

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**Reviewed by:** Gisa Ju

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**Reference:** 0147-001

## 1 Introduction

RMC is completing a comprehensive Sewer System Assessment and Capital Improvement Planning (SSACIP) effort for Ross Valley Sanitary District (District). The purpose of this project is to evaluate existing pump stations, force mains, and gravity sewers, and establish requirements and develop a plan for continued rehabilitation or replacement of these facilities. Facility rehabilitation plans have been summarized in the Sewer System Replacement Master Plan dated January 2007. The SSACIP effort incorporates information from other work recently completed by the District, including the Sanitary Sewer Hydraulic Evaluation and Capacity Assurance Plan (SHECAP) and development of the District's inventory, maintenance, and condition assessment database (called HIMCAD), as well as on-going sewer rehabilitation projects.<sup>1</sup>

The purpose of this Technical Memorandum (TM) is to present a 10-year Capital Improvement Strategic Plan (CIP). The CIP includes projects that were identified in the Sewer System Replacement Master Plan, prioritized using a weighted decision model, and phased to provide a balanced approach to meeting the District's objectives for safety, environmental responsiveness, and financial responsibility.

The CIP presents a summary of projects that are recommended to begin during each fiscal year, from Fiscal Year (FY) 2006-07 through FY 2015-16, and supporting tables showing detailed subprojects, schedules, and cash flows. This CIP integrates information developed in July 2006 for the District's FY 2006-07 CIP.

This TM is organized as follows:

- Introduction
- Summary of project drivers
- Capital Improvement Strategic Plan
- Next steps

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<sup>1</sup> A separate component of the SSACIP that is not discussed in this memorandum is development of a Sewer System Management Plan (SSMP) in accordance with guidelines published by the San Francisco Bay Regional Water Quality Control Board.

## 2 Summary of Project Drivers

### 2.1 Decision Model

In July 2006, RMC completed an initial assessment of project needs and developed a Fiscal Year (FY) 2006-07 Capital Improvement Plan. This plan, which presented a schedule and estimated cash flow for implementation of seven priority projects, is discussed in Technical Memorandum CIP-2. Priority projects were comprised of gravity sewer and force main improvements only; no pump station improvements were identified as requiring implementation in FY 2006-07. The list of priority projects was developed using a weighted decision analysis model that is described further in Technical Memorandum CIP-1. Both TM CIP-1 and TM CIP-2 are included in the Appendix.

Since this time, the decision analysis model has been modified to reflect project attributes for long-term gravity sewer, force main, and pump station improvements. The modified model and preliminary project priorities resulting from application of this model are described in TM CIP-3, also included in the Appendix.

Although the decision model captures the most significant project drivers, one component of CIP development cannot be mechanized. This component relies on the facility knowledge of operations and technical staff, and the relationships between various projects (e.g., in general, downstream capacity improvements should be completed before upstream improvements). Therefore, after an initial prioritized project list was developed using the decision model, results were reviewed by the project team and discussed with District operations staff and the District's historical engineering consultant firm, Nute Engineering, to ensure that overriding criteria driving project development were addressed.

### 2.2 Additional Project Drivers

Additional project drivers that were considered in the final list of priority projects include:

- **Need for accelerated sewer rehabilitation.** By consent decree, the District is committed to rehabilitating at least two miles of sewer pipe every fiscal year and inspecting at least four miles of sewer pipe annually.
- **Proximity of priority and non-priority projects.** Projects located in the same general area and involving similar types of construction were combined to minimize construction impacts and optimize costs.
- **Interface with other agencies and negotiations with property owners.** Several projects are located adjacent to other utilities (e.g., water pipelines) with planned construction schedules that conflicted with initially proposed priorities, or require extended negotiations with property owners. Project phasing was adjusted to minimize conflicts and facilitate coordination.
- **Need for balanced replacement program.** A strategic long-term replacement plan includes rehabilitation of sewer, force main, and pump station components, and strives to include both design and construction activities in every year.

## 3 Capital Improvement Strategic Plan

### 3.1 Objectives

The following objectives were developed in collaboration with District staff to help guide development of the CIP. These objectives are listed in order of decreasing priority.

1. Meet or exceed legal requirements for pipeline inspection (4 miles annually) and replacement (2 miles per fiscal year).
2. Address the most critical projects early.
3. Target a \$5 to \$6 million annual capital improvement program. This amount will be refined further by District staff, in coordination with its financial advisement team.
4. Address a combination of sewer, force main, and pump station needs each year, in a manner that optimizes overall cost and coordinates with other infrastructure projects within District boundaries.
5. Balance pipeline inspection, design, and construction activities through each fiscal year.

### 3.2 Master Plan Supplemental Recommendations

In addition to the objectives listed above, the Sewer Replacement Master Plan (RMC, January 2007) recommends that the District strive to achieve a 50-year replacement cycle (approximately 3.8 miles of pipeline replacement per year, plus associated lower laterals) and to establish a baseline closed circuit television (CCTV) inspection record of the entire sewer system by inspecting approximately 38 miles per year of pipe through FY2011-12. Further, District staff has established a goal of continued CCTV inspection at a rate of approximately 19 miles per year, which would result in a complete assessment every ten years, beginning in FY2012-13.

These supplemental goals were considered during development of the CIP. However, due to budgeting constraints, the objectives of achieving a 3.8 mile per year replacement cycle or system-wide CCTV inspection are not achievable within the 10-year planning window. **Table 3-1** shows the amount of pipe that can be inspected and rehabilitated per fiscal year, within established project objectives.

**Table 3-1: Proposed CCTV Inspection and Pipe Replacement Lengths**

Fiscal Year	Length (miles)	
	CCTV Inspection <sup>1</sup>	Pipeline Replacement <sup>2</sup>
FY2006-07	4	2.6
FY2007-08	4	2.1
FY2008-09	4	2.0
FY2009-10	38	2.1
FY2010-11	38	2.6
FY2011-12	4	3.4
FY2012-13	4	2.0
FY2013-14	4	2.0
FY2014-15	38	2.5
FY2015-16	38	2.5
<b>Total</b>	<b>176 miles</b>	<b>23.7 miles</b>

<sup>1</sup> CCTV inspection at the recommended rate of 38 miles per year can only be achieved during four of the ten planned fiscal years, due to annual budget constraints

<sup>2</sup> Pipe lengths do not include associated lower laterals that will be rehabilitated as part of each pipeline replacement project

In order to achieve a replacement rate of 3.8 miles per year, the District would need to increase its ten-year capital budget by approximately 35 percent or \$22.4 million. Similarly, in order to complete a complete system CCTV assessment by FY2011-12 and maintain an ongoing ten-year cycle for system-wide re-inspection, the District would need to increase the budget for the six years beginning in FY2006-07 through FY2011-12 by 2.8 percent or \$1.1 million, and maintain a \$200,000 annual CCTV program thereafter.

### 3.3 Recommended Projects

All of the tables referenced within this section are presented at the end of this Technical Memorandum. **Table 3-2** presents general project information for each CIP project; CIP projects are named according to the fiscal year in which all included subprojects begin. Each CIP project comprises some combination of SHECAP, sewer, force main, pump station, cathodic protection, and CCTV inspection subprojects. In many cases, a CIP project will continue into subsequent fiscal years.

**Table 3-3** shows a summary cash flow for the proposed CIP. **Total annual costs for FY2007-08 and FY2008-09 exceeded the District objective of \$5 to \$6 million per fiscal year. However, proposed costs reflect the minimum amount that the District can spend and still meet requirements set forth in the District's consent decree.** Project costs comprise predesign, design, construction, engineering, administration, and all other costs required to complete the project. Costs were developed based on conceptual requirements for facility planning, design, installation, replacement, and/or rehabilitation. Cost estimates use information from similar projects currently under construction by the District and in the Bay Area. The estimate provides a +50% to -30% level of accuracy, suitable for conceptual level planning as defined by AACE International. Costs are benchmarked to ENR Construction Cost Index for San Francisco of 8464, August 2006.

**Table 3-4** shows pipeline rehabilitation and replacement lengths to be completed each fiscal year, delineated by Fiscal Year project. These pipe lengths do not include associated lower laterals that will be rehabilitated as part of each pipeline replacement project.

**Tables 3-5, and 3-5a through 3-5k** present detailed information regarding these subprojects. Subprojects are described as follows: sewer capacity improvement projects (SHECAP); gravity sewer rehabilitation and replacement improvements (SEWER); force main improvements (FM); and pump station improvements (PS). SEWER and SHECAP subprojects include replacement of associated laterals to the property line (lower laterals); costs are not included for rehabilitation of laterals on private property (upper laterals), to be consistent with current District authority for lateral replacement work.

## 4 Next Steps

In order to maintain the proposed project schedule, and in particular, to maximize the facility improvements that are initiated in FY2006/2007, it is important that the District initiate CCTV, predesign, and design phases of recommended projects according to the schedule established in the CIP. Depending on project location and potential impact, these projects may include a public outreach or environmental component sooner than shown in the CIP.

**Table 3-2  
Capital Improvement Strategic Plan  
Project Summary**

CIP Name	Type of Subproject	# of Subprojects	Schedule
FY 2006-07 Projects	Force Main	3	FY2006-07 through FY 2009
	Sewer / SHECAP	4	FY2006-07 through FY 2009
	Cathodic Protection	1	FY2006-07 through FY 2008
	CCTV Inspection	1	FY2006-07
FY 2007-08 Projects	Sewer / SHECAP	1	FY2007-08 through FY 2011
	CCTV Inspection	1	FY2007-08
FY 2008-09 Projects	Sewer / SHECAP	3	FY2008-09 through FY 2012
	CCTV Inspection	1	FY2008-09
FY 2009-10 Projects	Pump Station	1	FY2009-10
	CCTV Inspection	1	FY2009-10
FY 2010-11 Projects	Pump Station	1	FY2010-11
	Sewer / SHECAP	3	FY2010-11 through FY2012
	CCTV Inspection	1	FY2010-11
FY2011-12 Projects	Sewer / SHECAP	4	FY2011-12 through FY2013
	CCTV Inspection	1	FY2011-12
FY2012-13 Projects	Sewer / SHECAP	2	FY2012-13 through FY2014
	Force Main	1	FY2012-13
	CCTV Inspection	1	FY2012-13
FY2013-14 Projects	Sewer / SHECAP	7	FY2013-14 through FY2015
	CCTV Inspection	1	FY2013-14
FY2014-15 Projects	Sewer / SHECAP	1	FY2014-15 through FY2016
	CCTV Inspection	1	FY2014-15
FY2015-16 Projects	Sewer / SHECAP	1	FY2015-16 through FY2017
	Future Pump Station & Force Main Projects	1	FY2015-16
	CCTV Inspection	1	FY2015-16

**Table 3-3  
Capital Improvement Strategic Plan  
Cash Flow (FY2007 through FY2016)**

CIP#	Project Description	Total Cost \$000	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16
FY07	FY2006-07 Projects	\$ 17,010	5,266	8,133	3,611							
FY 08	FY2007-08 Projects	\$ 6,054		211	1,319	3,193	1,331					
FY 09	FY2008-09 Projects	\$ 9,430		0	2,793	1,028	2,805	2,805				
FY 10	FY2009-10 Projects	\$ 1,613		0	0	1,613	0	0				
FY 11	FY2010-11 Projects	\$ 4,438		0	0	0	1,476	2,963				
FY12	FY2011-12 Projects	\$ 2,829		0	0	0	0	377	2,453			
FY13	FY2012-13 Projects	\$ 5,821		0	0	0	0	0	4,023			
FY14	FY2013-14 Projects	\$ 9,359		0	0	0	0	0	0	5,927	3,432	
FY15	FY2014-15 Projects	\$ 2,203		0	0	0	0	0	0	0	2,671	3,432
FY16	FY2015-16 Projects	\$ 1,868		0	0	0	0	0	0	0	0	1,868
	<b>Totals</b>	<b>\$ 60,626</b>	<b>\$ 5,266</b>	<b>\$ 8,344</b>	<b>\$ 7,722</b>	<b>\$ 5,835</b>	<b>\$ 5,611</b>	<b>\$ 6,144</b>	<b>\$ 6,476</b>	<b>\$ 5,927</b>	<b>\$ 6,103</b>	<b>\$ 5,300</b>

Costs were developed based on conceptual requirements for facility planning, design, installation, replacement, and/or rehabilitation. Cost estimates use information from similar projects currently under construction by the District and in the Bay Area. The estimate provides a +50% to -30% level of accuracy, suitable for conceptual level planning as defined by AACE International. Costs are benchmarked to ENR Construction Cost Index for San Francisco of 8464, August 2006.

**Table 3-4  
Capital Improvement Strategic Plan  
Pipeline Rehabilitation or Replacement Lengths  
(FY2007 through FY2016)**

		Pipe Length Rehabilitated or Replaced Each Fiscal Year									
CIP#	Project Description	FY2006-07	FY2007-08	FY2008-09	FY2009-10	FY2010-11	FY2011-12	FY2012-13	FY2013-14	FY2104-15	FY2015-16
FY07	FY2006-07 Projects	14,010	10,989	4,679							
FY 08	FY2007-08 Projects			2,723	10,890	4,538					
FY 09	FY2008-09 Projects			3,200		9,075	9,075				
FY 10	FY2009-10 Projects										
FY 11	FY2010-11 Projects						9,002				
FY12	FY2011-12 Projects							7,532			
FY13	FY2012-13 Projects							3,305	6,810		
FY14	FY2013-14 Projects								3,750		
FY15	FY2014-15 Projects									13,000	
FY16	FY2015-16 Projects										13,000
	<b>Totals</b>	<b>14,010</b>	<b>10,989</b>	<b>10,602</b>	<b>11,090</b>	<b>13,613</b>	<b>18,077</b>	<b>10,837</b>	<b>10,560</b>	<b>19,500</b>	<b>13,000</b>

**Table 3-5  
Capital Improvement Strategic Plan Summary  
(FY2007 through FY2016)**

CIP#	Project Description	Total Cost \$000	FY06-07	FY07-08	FY08-09	FY09-10	FY10-11	FY11-12	FY12-13	FY13-14	FY14-15	FY15-16
<b>FY07</b>	<b>FY2006-07 Projects</b>	<b>\$17,010</b>	<b>5,266</b>	<b>8,133</b>	<b>3,611</b>							
	Sewer Project CCTV & Design	\$ 928	636	292								
	Sewer Project Construction	\$ 8,105	4,283	3,376	445							
	Force Main Project Design	\$ 893	245	647								
	Force Main Project Construction	\$ 6,546	0	3,381	3,165							
	Cathodic Project Project Design	\$ 59	59									
	Cathodic Project Construction	\$ 436	0	436								
	CCTV ~ 4 mile per year goal	\$ 42	42									
<b>FY 08</b>	<b>FY2007-08 Projects</b>	<b>\$ 6,054</b>		<b>211</b>	<b>1,319</b>	<b>3,193</b>	<b>1,331</b>					
	Sewer Project CCTV & Design	\$ 726		205	520							
	Sewer Project Construction	\$ 5,322			798	3,193	1,331					
	CCTV ~ 4 mile per year goal	\$ 6		6								
<b>FY 09</b>	<b>FY2008-09 Projects</b>	<b>\$ 9,430</b>			<b>2,793</b>	<b>1,028</b>	<b>2,805</b>	<b>2,805</b>				
	Sewer Project CCTV & Design	\$ 1,132			411	721						
	Sewer Project Construction	\$ 8,298			2,382	307	2,805	2,805				
<b>FY 10</b>	<b>FY2009-10 Projects</b>	<b>\$ 1,613</b>				<b>1,613</b>						
	Pump Station Project Design	\$ 146				146						
	Pump Station Project Construction	\$ 1,067				1,067						
	CCTV ~ 38 mile per year goal	\$ 400		0		400						
<b>FY 11</b>	<b>FY2010-11 Projects</b>	<b>\$ 4,438</b>					<b>1,476</b>	<b>2,963</b>				
	Sewer Project CCTV & Design	\$ 392					302	89				
	Sewer Project Construction	\$ 2,873					0	2,873				
	Pump Station Project Design	\$ 94					94					
	Pump Station Project Construction	\$ 689					689					
	CCTV ~38 mile per year goal	\$ 390					390					
<b>FY12</b>	<b>FY2011-12 Projects</b>	<b>\$ 2,829</b>						<b>377</b>	<b>2,453</b>			
	Sewer Project CCTV & Design	\$ 334						334				
	Sewer Project Construction	\$ 2,453						0	2,453			
	CCTV ~ 4 mile per year goal	\$ 42						42				
<b>FY13</b>	<b>FY2012-13 Projects</b>	<b>\$ 5,821</b>							<b>4,023</b>			
	Sewer Project CCTV & Design	\$ 456							456			
	Sewer Project Construction	\$ 3,341							1,544	<b>1,798</b>		
	Force Main Project Design	\$ 238							238			
	Force Main Project Construction	\$ 1,744							1,744			
	CCTV ~ 4 mile per year goal	\$ 42							42			
<b>FY14</b>	<b>FY2013-14 Projects</b>	<b>\$ 9,359</b>								<b>5,927</b>	<b>3,432</b>	
	Sewer Project CCTV & Design	\$ 1,118								1,118		
	Sewer Project Construction	\$ 8,199								4,767	3,432	
	CCTV ~ 4 mile per year goal	\$ 42								42		
<b>FY15</b>	<b>FY2014-15 Projects</b>	<b>\$ 2,203</b>									<b>2,671</b>	<b>3,432</b>
	Pump Station Project Design	\$ 97									97	
	Pump Station Project Construction	\$ 715									715	
	Future PS and FM Projects	\$ 1,000									1,000	
	CCTV ~ 38 mile per year goal	\$ 391									391	
<b>FY16</b>	<b>FY2015-16 Projects</b>	<b>\$ 1,868</b>										<b>1,868</b>
	Sewer Project CCTV & Design	\$ 468										468
	Future PS and FM Projects	\$ 1,000										1,000
	CCTV ~ 38 mile per year goal	\$ 400										400
	<b>Totals</b>	<b>\$ 60,626</b>	<b>\$ 5,266</b>	<b>\$ 8,344</b>	<b>\$ 7,722</b>	<b>\$ 5,835</b>	<b>\$ 5,611</b>	<b>\$ 6,144</b>	<b>\$ 6,476</b>	<b>\$ 5,927</b>	<b>\$ 6,103</b>	<b>\$ 5,300</b>

**Table 3-5a  
Capital Improvement Strategic Plan  
Subproject Descriptions**

<b>CIP ID#</b>	<b>Project Name</b>	<b>Project Description</b>
1	Kentfield Force Main Replacement	<b>FM</b> project rehabilitates or replaces 7,500 feet of existing pipeline that is reaching the end of its design life and has a high probability and consequence of failure
2	Bon Air Tunnel Construction	<b>SEWER</b> project rehabilitates 3,000 feet of trunk sewer. Construction phase only is remaining in the proposed CIP.
3a	Cascade Sewer Rehabilitation Project	<b>SEWER</b> project replaces 3,621 feet of pipeline.
3b	Creek Bolinas Projects	<b>SHECAP</b> project that replace or upsizes 4,079 feet of pipeline.
4	Sir Francis Drake / Winship Projects	Combination of <b>SEWER</b> and <b>SHECAP</b> projects that replace or upsize 19,400 feet of pipeline.
5	Woodland / College Projects	<b>SHECAP</b> project replaces 1,600 feet of pipe and installs 650 feet of new relief sewer.
6	Sequoia Park / Tozzi Creek Projects	<b>SEWER</b> project rehabilitates 22,000 feet of pipeline.
7	Olive-Walnut / North-Hill Projects	<b>SEWER</b> projects that replace 11,000 feet of pipeline.
8a	Highway 101 and Riviera FM Replacement Projects	<b>FM</b> projects replace 1,050 feet of pipe. Highway 101 FM has leaked in the past and is adjacent to residential properties. Riviera FM crosses underneath Corte Madera Creek and is subjected to regular tidal variations that will likely lead to increased corrosion.
8b	William / Holcomb / Meadowood	<b>SHECAP</b> project upsizes or replaces 2,500 feet of pipe and adds 500 feet of new sewers. Project is combined with Riviera FM project due to close proximity.
9	Cathodic Improvements and Inspections	<b>FM</b> projects inspect, replace or add facilities to better monitor and/or protect force mains from corrosion.
10	PS 31, 32, 33, 34, 35, 36 Improvements	<b>PS</b> projects 34, 35, and 36 provide safe access for maintenance. PS 31 and 32 will receive new submersible pumps. All projects include general equipment upgrades.
11a	Miracle Mile	<b>SHECAP</b> project upsizes 2,000 feet of existing sewers and installs 1,250 feet of new diversion sewer.
11b	Redhill Avenue	<b>SEWER</b> project replaces sewers and lower laterals with known maintenance issues. Combined with Miracle Mile due to proximity.
12	Hillside Avenue	<b>SEWER</b> project replaces sewers and lower laterals with known maintenance issues.
13	PS-12, 13, 14, and 37 Improvements	<b>PS</b> -12 and 14 projects add pumps to provide adequate wet weather capacity with the largest pump out of service. PS-12 and 37 improvements comprise operations and reliability upgrades; these pump stations are grouped due to proximity.
14	Upper Butterfield	<b>SHECAP</b> project upsizes/replaces 6,375 feet of sewers and installs 487 feet of new diversion sewers.

**Table 3-5a  
Capital Improvement Strategic Plan  
Subproject Descriptions**

CIP ID#	Project Name	Project Description
15a	Cascade	<b>SHECAP</b> project upsize 1,727 feet of existing pipe.
15b	Westbrae/Hawthorne	<b>SHECAP</b> project upsizes 1,278 feet of pipe.
16a	Laurel Grove/McAllister	<b>SHECAP</b> project upsizes 2,256 feet of pipe.
16b	Magnolia	<b>SHECAP</b> project upsizes 2,300 feet of pipe.
17	Greenbrae FM Replacement	<b>FM</b> project replaces 3,800 feet of pipe that is nearing the end of its design life and showing increasing corrosion
18	Spruce/Park/Merwin/Broadway	<b>SHECAP</b> projects upsize 1,683 feet of existing sewers and install 2,000 feet of new diversion sewer.
19	Sonoma,Nokomis	<b>SHECAP</b> project replaces 965 feet of sewers and installs 1,800 feet of diversion sewer.
20	Lower Butterfield/Meadowcroft/ Broadmoor/SFD	<b>SHECAP</b> projects upsize 3,345 feet of existing sewers and installs 4,000 feet of new diversion and parallel sewers.
21	Sir Francis Drake / Berry	<b>SHECAP</b> project upsizes 1,100 feet of sewer pipe.
22	The Alameda / Brookmead	<b>SHECAP</b> project upsizes 670 feet of sewer pipe and constructs 1,000 feet of diversion sewer.
23	Manor Easement	<b>SHECAP</b> project upsizes 864 feet of sewer.
24	Eliseo	<b>SHECAP</b> project upsizes 218 feet of sewer pipe.
25, 27, 26	PS 20, 21, 30 Improvements	<b>PS</b> projects replace aging equipment and improve facility operation and safety/reliability.
28, 29	PS 15, 22, 23, 24, 25 Improvements	<b>PS</b> projects replace aging equipment and improve facility operation and safety/reliability.
OTHER	Misc PS & FM projects identified in future	<b>PS</b> , and <b>FM</b> projects address unidentified issues in all facilities as identified by District staff
SEWER	Sewer Projects Identified by CCTV	Design of new <b>SEWER</b> projects identified by CCTV, as allowable by budget constraints.
CTV4	Systemwide CCTV Inspection – 4 mi/year goal	<b>SEWER</b> project provides CCTV inspection in addition to those CCTV inspections identified as part of planned SEWER projects, in order to achieve four miles of CCTV inspection annually.
CTV38	Systemwide CCTV Inspection – 38 mi/year goal	<b>SEWER</b> project provides CCTV inspection in addition to those CCTV inspections identified as part of planned SEWER projects, in order to achieve 38 miles of CCTV inspection annually, and a system-wide assessment within five years.

**Table 3-5b  
Capital Improvement Strategic Plan  
Fiscal Year 2006 - 2007**

ID #	Subproject Name	Estimated Total Cost \$000	Start Year	R/R Footage	FY 2006-07												FY07 Budget \$000	
					July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June		
1	<b>Kentfield Force Main Rehabilitation</b>	\$ 7,194	FY07														216	
	Predesign & Design	\$ 863																216
	Construction	\$ 6,331																0
2	<b>Bon Air Tunnel Construction Only</b>	\$ 1,303	FY07	3,000													1,303	
3a	<b>Cascade Sewer Rehab</b>																0	
	Design																0	
	Construction																0	
3b	<b>Creek / Bolinas Capacity Upgrades</b>	\$ 3,037	FY07														73	
	Design	\$ 364														73		
	Construction	\$ 2,673														0		
7	<b>Olive/Walnut Projects Des &amp; Cons</b>	\$ 3,387	FY07	11,010													3,386	
8a	<b>Highway 101 &amp; Riviera FM Replacements</b>	\$ 245	FY07														29	
	Design	\$ 29													29			
	Construction	\$ 216													0			
8b	<b>William/Holcomb/Meadowood</b>	\$ 1,306	FY07														157	
	Design	\$ 157													157			
	Construction	\$ 1,149													0			
9	<b>Misc Projects - Cathodic Improvements &amp; Inspections</b>	\$ 496	FY07														59	
	Design	\$ 59													59			
	Construction	\$ 436													0			
CTV4	<b>CCTV Inspection Goal: 4 mi/yr</b>	\$ 42	FY07														42	
	<b>Total</b>			14,010												FY07	\$ 5,266	

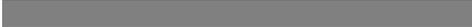
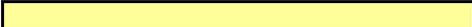
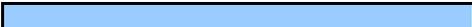
**Legend**

	CCTV
	Design
	Construction

**Table 3-5c  
Capital Improvement Strategic Plan  
FY2007 - 2008**

ID #	Project Name	Estimated Total Cost \$000	Start Year	R/R Footage	FY2007-08												FY08 Budget \$000		
					July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June			
1	<b>Kentfield Force Main Rehabilitation</b>	\$ 7,194	FY07	4,000														3,813	
	Predesign & Design	\$ 863																	648
	Construction	\$ 6,331																	3,165
3a	<b>Cascade Sewer Rehab</b>																	0	
	Design																	0	
	Construction																	0	
3b	<b>Creek / Bolinas Capacity Upgrades</b>	\$ 3,037	FY07	3,400														2,519	
	Design	\$ 364																292	
	Construction	\$ 2,673																2,227	
4	<b>Sir Francis Drake / Winship Projects</b>	\$ 6,048	FY08															205	
	Design	\$ 726																205	
	Construction	\$ 5,322																0	
8a	<b>Highway 101 &amp; Riviera FM Replacements</b>	\$ 245	FY07															216	
	Design	\$ 29																0	
	Construction	\$ 216		1,050														216	
8b	<b>William/Holcomb/Meadowood</b>	\$ 1,306	FY07															1,149	
	Design	\$ 157																0	
	Construction	\$ 1,149		2,539														1,149	
9	<b>Misc Projects - Cathodic Improvements &amp; Inspections</b>	\$ 496	FY07															436	
	Design	\$ 59																0	
	Construction	\$ 436		0														436	
CTV4	<b>CCTV Inspection Goal: 4 mi/yr</b>	\$ 6	FY07															6	
<b>Total</b>		<b>\$ 18,326</b>		<b>10,989</b>													<b>FY08</b>	<b>\$ 8,345</b>	

**Legend**

	CCTV
	Design
	Construction

**Table 3-5d  
Capital Improvement Strategic Plan  
Fiscal Year 2008 - 2009**

ID #	Project Name	Estimated Total Cost \$000	Start Year	R/R Footage	FY2008-09												FY09 Budget \$000
					July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
1	<b>Kentfield Force Main Rehabilitation</b>	\$ 7,194	FY07	4,000													3,165
	Predesign & Design	\$ 863															
	Construction	\$ 6,331															3,165
3b	<b>Creek / Bolinas Capacity Upgrades</b>	\$ 3,037	FY07	679													445
	Design	\$ 364															
	Construction	\$ 2,673															445
4	<b>Sir Francis Drake / Winship Projects</b>	\$ 6,048	FY08	2,723													1,319
	Design	\$ 726															
	Construction	\$ 5,322															798
5	<b>Woodland / College Projects</b>	\$ 1,309	FY09	1,600													1,309
	Design	\$ 157															
	Construction	\$ 1,152															1,152
6	<b>Sequoia Park Projects</b>	\$ 6,374	FY09														44
	CCTV & Design	\$ 765															
	Construction	\$ 5,609															0
11a	<b>Miracle Mile</b>	\$ 1,747	FY09	1,600													1,440
	Design	\$ 210															
	Construction	\$ 1,537															1,230
<b>Total</b>				<b>10,602</b>												<b>FY09</b>	<b>\$ 7,722</b>

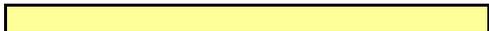
**Legend**

	CCTV
	Design
	Construction

**Table 3-5e  
Capital Improvement Strategic Plan  
Fiscal Year 2009 - 2010**

ID #	Project Name	Estimated Total Cost \$000	Start Year	R/R Footage	FY2009-10												FY10 Budget \$000
					July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
4	<b>Sir Francis Drake / Winship Projects</b>	\$ 6,048	FY08	10,890													3,193
	Design	\$ 726															
	Construction	\$ 5,322															3,193
6	<b>Sequoia Park Projects</b>	\$ 6,374	FY09														721
	CCTV & Design	\$ 765															
	Construction	\$ 5,609															0
10	<b>PS31, 32, 33, 34, 35, 36 Improvements</b>	\$ 1,213	FY10	0													1,213
	Design	\$ 146															
	Construction	\$ 1,067															1,067
11a	<b>Miracle Mile</b>	\$ 1,747	FY09	400													307
	Design	\$ 210															
	Construction	\$ 1,537															307
CTV38	<b>CCTV Inspection Goal: 38 mi/yr</b>	\$ 400	Varies														400
	<b>Total</b>			11,290												FY10	\$ 5,835

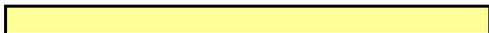
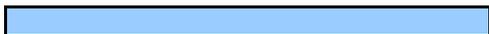
**Legend**

	CCTV
	Design
	Construction

**Table 3-5f  
Capital Improvement Strategic Plan  
Fiscal Year 2010 - 2011**

ID #	Project Name	Estimated Total Cost \$000	Start Year	R/R Footage	FY2010-11												FY11 Budget \$000
					July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
4	<b>Sir Francis Drake / Winship Projects</b>	\$ 6,048	FY08	4,538													1,331
	Design	\$ 726															
	Construction	\$ 5,322															1,331
6	<b>Sequoia Park Projects</b>	\$ 6,374	FY09	9,075													2,805
	CCTV & Design	\$ 765															
	Construction	\$ 5,609															2,805
11b	<b>Redhill Ave.</b>	\$ 545	FY11														36
	CCTV & Design	\$ 65															
	Construction	\$ 480															0
12	<b>Hillside Ave.</b>	\$ 1,134	FY11														76
	CCTV & Design	\$ 136															
	Construction	\$ 998															0
13	<b>PS 12, 13, 14, 37 - Bon Air, Greenbrae, Larkspur, Larkspur Plaza</b>	\$ 783	FY11														783
	Design	\$ 94															
	Construction	\$ 689															689
14	<b>Upper Butterfield</b>	\$ 1,586	FY11														190
	Design	\$ 190															
	Construction	\$ 1,396															0
CTV38	<b>CCTV Inspection Goal: 38 mi/yr</b>	\$ 390	Varies														390
<b>Total</b>				13,613												FY11	\$ 5,611

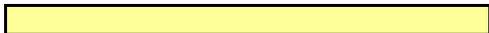
**Legend**

	CCTV
	Design
	Construction

**Table 3-5g  
Capital Improvement Strategic Plan  
Fiscal Year 2011 -2012**

ID #	Project Name	Estimated Total Cost \$000	Start Year	R/R Footage	FY2011-12												FY12 Budget \$000
					July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
6	<b>Sequoia Park Projects</b>	\$ 6,374	FY09	9,075													2,805
	CCTV & Design	\$ 765															
	Construction	\$ 5,609															2,805
11b	<b>Redhill Ave.</b>	\$ 545	FY11	1,677													509
	CCTV & Design	\$ 65															
	Construction	\$ 480															480
12	<b>Hillside Ave.</b>	\$ 1,134	FY11	3,489													1,058
	CCTV & Design	\$ 136															
	Construction	\$ 998															998
14	<b>Upper Butterfield</b>	\$ 1,586	FY11	3,836													1,396
	Design	\$ 190															
	Construction	\$ 1,396															1,396
15a	<b>Cascade</b>	\$ 573	FY12														69
	Design	\$ 69															
	Construction	\$ 504															0
15b	<b>Westbrae/Hawthorne</b>	\$ 425	FY12														51
	Design	\$ 51															
	Construction	\$ 374															0
16a	<b>Laurel Grove/McAllister</b>	\$ 951	FY12														114
	Design	\$ 114															
	Construction	\$ 837															0
16b	<b>Magnolia</b>	\$ 838	FY12														101
	Design	\$ 101															
	Construction	\$ 737															0
CTV4	<b>CCTV Inspection Goal: 4 mi/yr</b>	\$ 42	FY12														42
	<b>Total</b>			<b>18,077</b>													<b>\$ 6,144</b>

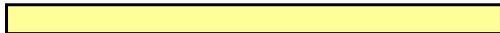
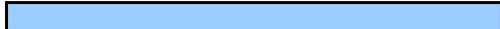
**Legend**

	CCTV
	Design
	Construction

**Table 3-5h  
Capital Improvement Strategic Plan  
Fiscal Year 2012- 2013**

ID #	Project Name	Estimated Total Cost \$000	Start Year	R/R Footage	FY2012-13												FY13 Budget \$000
					July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
15a	<b>Cascade</b>	\$ 573	FY12	1,727													504
	Design	\$ 69														0	
	Construction	\$ 504														504	
15b	<b>Westbrae/Hawthorne</b>	\$ 425	FY12	1,278												374	
	Design	\$ 51													0		
	Construction	\$ 374													374		
16a	<b>Laurel Grove/McAllister</b>	\$ 951	FY12	2,256												837	
	Design	\$ 114													0		
	Construction	\$ 837													837		
16b	<b>Magnolia</b>	\$ 838	FY12	2,271												737	
	Design	\$ 101													0		
	Construction	\$ 737													737		
17	<b>Greenbrae FM Replacement</b>	\$ 1,982	FY13	2,900												1,982	
	Design	\$ 238													238		
	Construction	\$ 1,744													1,744		
18	<b>Spruce/Park/Merwin/Broadway</b>	\$ 1,754	FY13	405												1,754	
	Design	\$ 210													210		
	Construction	\$ 1,544													1,544		
SEWR	<b>New Sewer Projects based on CCTV</b>	\$ 245	FY13													245	
	Design														0		
	Construction														0		
CTV4	<b>CCTV Inspection Goal: 4 mi/yr</b>	\$ 42	FY13													42	
<b>Total</b>				<b>10,837</b>												<b>\$ 6,476</b>	

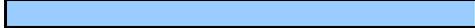
**Legend**

	CCTV
	Design
	Construction

**Table 3-5i  
Capital Improvement Strategic Plan  
Fiscal Year 2013 - 2014**

ID #	Project Name	Estimated Total Cost \$000	Start Year	R/R Footage	FY2013-14												Total FY14 \$000
					July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
19	<b>Sonoma/Nokomis</b>	\$ 1,789	FY14	405													1,789
	Design	\$ 215														215	
	Construction	\$ 1,574															
20	<b>Lower Butterfield/Meadowcroft/ Broadmoor/SFD</b>	\$ 1,985	FY14	493													1,985
	Design	\$ 238														238	
	Construction	\$ 1,747															
21a	<b>Sir Francis Drake/Berry</b>	\$ 472	FY14	1,103													472
	Design	\$ 57														57	
	Construction	\$ 415															
21b	<b>The Alameda/Brookmead</b>	\$ 766	FY14	667													766
	Design	\$ 92														92	
	Construction	\$ 674															
21c	<b>Manor Easement</b>	\$ 339	FY14	864													339
	Design	\$ 41														41	
	Construction	\$ 298															
21d	<b>Eliseo</b>	\$ 66	FY14	218													66
	Design	\$ 8														8	
	Construction	\$ 58															
SEWR	<b>New Sewer Projects based on CCTV</b>	\$ 2,266	FY14	6,810													2,266
	Design																
	Construction																1,798
CTV4	<b>CCTV Inspection Goal: 4 mi/yr</b>	\$ 42	FY14														42
	<b>Total</b>			<b>10,560</b>													<b>\$ 7,725</b>

**Legend**

	CCTV
	Design
	Construction

**Table 3-5j  
Capital Improvement Strategic Plan  
Fiscal Year 2014-2015**

ID #	Project Name	Estimated Total Cost \$000	Start Year	R/R Footage	FY2014-15												Total FY15 \$000
					July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
SEWR	New Sewer Projects based on CCTV Design Construction	\$ 3,900	FY15	13,000													3,900
																	468
CTV38	CCTV Inspection Goal: 38 mi/yr	\$ 390	FY15														390
<b>Total</b>				<b>13,000</b>													<b>\$ 6,102</b>

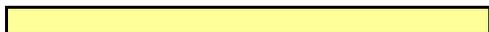
**Legend**

- CCTV
- Design
- Construction

**Table 3-5k  
Capital Improvement Strategic Plan  
Fiscal Year 2015-2016**

ID #	Project Name	Estimated Total Cost \$000	Start Year	R/R Footage	FY2016												Total FY16 \$000
					July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	
<b>Other</b>	<b>Future PS and FM Projects</b>	<b>\$ 1,000</b>	FY16														<b>1,000</b>
<b>SEWR</b>	<b>New Sewer Projects based on CCTV</b>	<b>\$ 3,900</b>	FY16														<b>3,900</b>
	Design																468
	Construction			<b>13,000</b>													<b>3,432</b>
<b>CTV38</b>	<b>CCTV Inspection Goal: 38 mi/yr</b>	<b>\$ 400</b>	FY16														<b>400</b>
	<b>Total</b>			<b>13,000</b>													<b>\$ 5,300</b>

**Legend**

	CCTV
	Design
	Construction

## **Appendix**

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**TM-1 Prioritization Process**

**TM-2 Fiscal Year 2006/2007 Prioritized Projects**

**TM-3 Prioritization Criteria and Preliminary Results**

# Technical Memorandum CIP-1

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## RVSD Sewer System Assessment and Capital Improvement Planning

**Subject:** Prioritization Process

**Prepared For:** Barry Hogue, District Manager, RVSD

**Prepared by:** Rachael Wark and Vivian Housen

**Reviewed by:** Gisa Ju

**Date:** July 12, 2006

**Reference:** 0147-001

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This memorandum presents the preliminary goals, criteria and project prioritization process for consideration as part of the development of the Ross Valley Capital Improvement Strategic Plan. This TM is organized as follows:

- Background
- Prioritization Criteria
- Weighting of Criteria
- Project Performance Metrics

## 1 Background

Facing a number of challenges relating to the condition, capacity and operation of its collection system facilities, Ross Valley Sanitary District (District) has embarked upon several planning efforts to identify effective solutions to address these challenges:

- Sewer Hydraulic Evaluation and Capacity Assurance Plan (SHECAP). This work evaluates trunk sewer facilities and flows, and recommends upgrades to larger-diameter trunk sewers that will minimize the potential for capacity-related sanitary sewer overflows. SHECAP also identifies potential capacity constraints in some smaller-diameter sewers that could be addressed in conjunction with trunk sewer rehabilitation and replacement. SHECAP work was completed in June 2006. A draft report summarizing results is under review by District staff.
- Sewer System Management Plan (SSMP) Gap Analysis. This work, which was completed in late 2005, assessed District operations and documentation with regard to SSMP guidelines. The Gap Analysis identified potential areas that require attention during development of the District's SSMP.
- History Inventory Maintenance Condition Assessment Database (HIMCAD). This effort mapped existing facilities and maintenance information in a GIS database, for future use by the District. Initial HIMCAD mapping was completed in late 2005; the database is a working document and recommendations for improvements will be made based on

findings from ongoing facility assessments.

- **Sewer System Assessment and Capital Improvement Planning (SSACIP).** This effort includes detailed assessments of the District's facilities, and will culminate in the development of three Master Plans: Sewer Master Plan, Force Main Master Plan, and Pump Station Master Plan, including recommended rehabilitation and replacement projects for each of these groups of facilities. This work, in conjunction with SHECAP and using information from HIMCAD, uses a decision analysis model to develop a long-term projection of system improvement projects for implementation by the District, based on established goals and priorities. SSACIP also recommends near-term projects to be implemented in a one- to three-year timeframe. SSACIP will be completed by the end of 2006; near-term projects will be finalized in July 2006.

As part of the SSACP effort discussed above, the District is developing a long-term Capital Improvement Strategic Plan that will result in a comprehensive, prioritized Capital Improvement Program (CIP). Following identification of solutions by the planning efforts noted above, the next steps in development of a Strategic Plan involve:

1. **Identifying Prioritization Criteria.** These criteria represent the driving forces behind the recommended improvement projects and reflect the goals of the District.
2. **Assigning Relative Weights to the Criteria.** This task involves defining the relative importance of the identified criteria.
3. **Establishing Project Metrics and Evaluating Proposed Projects.** With the criteria and weighting defined, the next step is to determine metrics that will be used to evaluate each of the improvement projects with respect to these parameters, and to conduct this evaluation.
4. **Developing Project Rankings.** A decision model will be used to develop a prioritized list of improvement projects based the above evaluation.
5. **Identifying Overriding Factors.** In general, highest scoring projects should receive the highest priority for implementation. However, there are some cases where project-specific constraints may override the project ranking.
6. **Developing Prioritized Cash Flow & Schedule.** The final step in the process is to work with District staff to develop a cash flow and schedule that balances improvement needs with projected funding.

This memorandum describes potential Prioritization Criteria and Weighting (Steps 1 and 2) for consideration by the District in development of the Strategic Plan, and presents potential project performance metrics by which each improvement project may be evaluated (Step 3).

## 2 Prioritization Criteria

The District's Mission is *"to provide the highest quality and most cost-effective wastewater collection possible for its constituents by meeting the following goals:*

- *Be available and responsive to the needs of the public*

- *Perform preventive maintenance on all collection system components*
- *Proactively identify and correct public sewer system defects*
- *Work cooperatively with local, state and federal agencies*
- *Uphold the District's standards and specifications on newly constructed public and private sewers”*

The prioritization criteria shown in **Table 1** were developed to support the District’s goals, and are presented for consideration by District staff:

**Table 1 - Prioritization Criteria**

Criteria	Definition
<b>Traffic Impacts / Temporary Shutdowns</b>	Project would minimize potential traffic impacts and/or temporary shutdowns that could result in a system failure or operational issue.
<b>Legal Compliance</b>	Project contributes to requirement for rehabilitation of 2 miles of pipe per year or equivalent.
<b>Regulatory Compliance including SSO Reduction</b>	Project is needed to comply with existing regulations (e.g. reduces risk for Sanitary Sewer Overflows and meet other SSMP requirements).
<b>Large-Scale Impact Involving Trunk Sewers</b>	Project is needed to address capacity deficiencies or reliability issues in an existing trunk sewer that could result in SSOs
<b>Operational Efficiency/Aging Infrastructure</b>	Project is needed to maintain or improve the management, operational efficiency, and reliability of the system, and/or to extend the useful life of the facilities

### 3 Weighting of Criteria

**Table 2** presents proposed weights for the criteria identified for consideration as part of the Strategic Plan, with 5 being most critical to the District, and 1 being less critical but still highly important for the District to achieve its goals.

**Table 2 - Criteria Weighting**

Criteria	Relative Weighting	
	Score (1-5)	% of Total
Traffic Impacts/Temporary Shutdowns	1	5.3%
Legal Compliance	5	26.3%
Regulatory Compliance (SSOs, SSMP)	5	26.3%
Large-Scale Impact (Trunk Sewer)	5	26.3%
Operational Efficiency/Aging Infrastructure	3	15.8%
<b>Total</b>	<b>19</b>	<b>100%</b>

## 4 Project Performance Metrics

Project metrics are benchmarks that will be used to determine to which degree each project meets the prioritization criteria described above. **Table 3** presents a summary of the performance metrics identified for consideration as part of the Strategic Plan.

**Table 3 - Project Performance Metrics**

Criteria	Performance Metric	
	Project Score	Description
<b>Traffic Impacts/Temporary Shutdowns</b>	<b>10</b>	Reduces risk of <b>high</b> traffic or shutdown-related impacts in the next 5 years: <ul style="list-style-type: none"> <li>- Reduces risk of temporary interruption of service to <i>large number</i> of customers; and/or</li> <li>- Reduces risk of <i>significant</i> traffic impacts from failed infrastructure</li> </ul>
	<b>7</b>	Reduces risk of <b>moderate</b> traffic or shutdown-related impacts in the next 5 years: <ul style="list-style-type: none"> <li>- Reduces risk of temporary interruption of service to <i>some</i> customers; and/or</li> <li>- Reduces risk of <i>moderate</i> traffic impacts from failed infrastructure</li> </ul>
	<b>3</b>	Reduces risk of <b>low</b> traffic or shutdown-related impacts in the next 5 years: <ul style="list-style-type: none"> <li>- Reduces risk of temporary interruption of service to <i>limited number</i> of customers; and/or</li> <li>- Reduces risk of <i>low</i> traffic impacts from failed infrastructure</li> </ul>
	<b>0</b>	Does not address traffic or shutdown-related impacts.
<b>Legal Compliance</b>	<b>10</b>	Rehabilitates 3000' of pipe or greater.
	<b>9</b>	Rehabilitates 2000' to 3000' of pipe.
	<b>7</b>	Rehabilitates 1000' to 2000' of pipe.
	<b>5</b>	Rehabilitates up to 1000' of pipe.
<b>Regulatory Compliance (SSOs, SSMP)</b>  Note: Score increased one level if SSO will impact sensitive environment	<b>10</b>	Predicted overflow in 5-year design storm >400,000 gal OR resolves a historical or documented overflow
	<b>9</b>	Predicted overflow in 5-year design storm >100,000 gal
	<b>8</b>	Predicted overflow in 5-year design storm >10,000 gal
	<b>7</b>	Predicted overflow in 5-year design storm >1,000 gal OR resolves a known issue (such as a structural or grease problem) with the potential to cause future SSOs
	<b>5</b>	Predicted surcharge in 5-year design storm within 3 feet of ground surface
	<b>3</b>	Predicted surcharge in 5-year design storm >3 feet below surface
<b>Large-Scale Impact (Trunk Sewer)</b>	<b>8</b>	Trunk line modeled in SHECAP and 18" diameter or greater.
	<b>5</b>	Trunk line modeled in SHECAP and less than 18" diameter
	<b>3</b>	Not modeled in SHECAP.
<b>Operational Efficiency/Aging Infrastructure</b>	<b>10</b>	Provides critical redundancy or improvement to O&M
	<b>5</b>	Provides level of redundancy or O&M consistent with good operating practices;
	<b>0</b>	Does not address an identified operational efficiency/aging infrastructure

# Technical Memorandum CIP-2

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## RVSD Sewer System Assessment and Capital Improvement Planning

**Subject:** Fiscal Year 2007 Prioritized Projects

**Prepared For:** Barry Hogue, District Manager, RVSD

**Prepared by:** Vivian Housen

**Reviewed by:** Gisa Ju

**Date:** July 6, 2006

**Reference:** 0147-001

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### 1 Introduction

RMC is completing a comprehensive Sewer System Assessment and Capital Improvement Planning (SSACIP) effort for Ross Valley Sanitary District (District). The overall goal of this project is to evaluate existing pump stations, force mains, and gravity sewers, and establish requirements and develop a plan for continued rehabilitation or replacement of these facilities. These rehabilitation plans will be summarized in individual master plans developed for each group of facilities. The SSACIP effort incorporates information from other work recently completed by the District, including the Sanitary Sewer Hydraulic Evaluation and Capacity Assurance Plan (SHECAP) and development of the District's inventory, maintenance, and condition assessment database (called HIMCAD), as well as on-going sewer rehabilitation projects, and is scheduled to be completed by the end of 2006.<sup>1</sup>

An intermediate goal of this project is to develop recommendations for priority projects that should be implemented in FY2007. A preliminary list of priority projects was developed after completion of all initial assessments, and using a weighted decision analysis model developed specifically for the District. This model is described in greater detail in Technical Memorandum CIP-1, attached. The preliminary list of projects was reviewed by RMC, District staff and Nute Engineering, and further refined to more accurately reflect District priorities and needs.

The purpose of this Technical Memorandum is to present the finalized list of FY07 prioritized projects, including estimated project costs and projected schedules. This TM is organized as follows:

- Introduction
- FY2007 prioritized projects, including estimated costs and project schedules
- Summary of project drivers
- Next steps

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<sup>1</sup> A separate component of the SSACIP that is not discussed in this memorandum is development of a Sewer System Management Plan (SSMP) in accordance with guidelines published by the San Francisco Bay Regional Water Quality Control Board.

## 2 FY2007 Prioritized Projects

### 2.1 Project List

**Table 1** presents seven projects that are proposed to begin in FY2007. These projects include one force main project and six sewer rehabilitation/replacement projects. Although no pump station projects were identified for completion in FY2007, the pump station assessment did identify areas for future improvement and rehabilitation, and will address these long-term needs in the pump station master plan.

**Table 1 – FY2007 Priority Projects**

Project Short Name	Description	Approximate Length (ft)
Techite Force Main	Rehabilitates, replaces, and/or increases capacity of the existing techite force main parallel to Corte Madera Creek in Kentfield and along Eliseo Drive in Larkspur. This project require predesign and design in FY2007. Construction is planned for FY2008.	8,000
Bon Air Tunnel	Rehabilitates the original trunk sewer between Bon Air shopping center and Bon Air Road in Larkspur. This project is currently under construction, and will be completed by December 2006.	3,000
Creek/Bolinas/Cascade	Replaces and increases capacity of existing pipelines on Creek Road, Bolinas Road, and in the easement parallel to Cascade Creek in Fairfax, and replaces collection system piping upstream of these sewers and on Wood Lane. A portion of this project is currently under design by Nute Engineering. Due to permitting issues, this project will not be ready for construction until FY2008.	7,652
SFD/Shady Lane	Increases capacity of existing pipelines on Sir Francis Drake Boulevard (San Anselmo) and Bolinas Avenue and Shady Lane (Ross), adds relief sewers, and replaces collection system piping adjacent to these sewers and in Winship Park. CCTV inspection and design are planned for FY2007. Construction will be completed in FY2008.	19,371
Woodland/Goodhill	Increases capacity of existing pipelines on Woodland Road, Goodhill Road, College Avenue, and Stadium Way (Kent Woodlands and Kentfield), and adds two relief sewers. Design is planned for FY2007 with construction in FY2008.	5,850
Sequoia Park/Olive	Replaces collection system piping near Sequoia Road (San Anselmo), and Olive Ave and Park Drive (Ross). CCTV inspection and design are planned for FY2007. Construction will be completed in FY2008.	21,951
Olive/North/Cypress	Replaces collection system piping on nine streets throughout the District's service area. These pipes are experiencing maintenance issues and located in areas where construction during FY2007 is feasible.	11,010

## 2.2 Project Costs

Estimated costs for the identified FY2007 priority projects are presented in **Table 2**. The projected cost for FY2007 is \$6.5 million. This estimate includes CCTV inspection, predesign, and design efforts for most projects, and construction of the Bon Air Tunnel and Olive/North/Cypress project. Costs were developed based on conceptual requirements for pipeline installation, replacement, and rehabilitation. Cost estimates use information from similar projects currently under construction by the District, and in the Bay Area. The estimate provides a +50% to -30% level of accuracy, as defined by AACE International. Costs are benchmarked to ENR Construction Cost Index, San Francisco, April 2006.

In addition to FY2007 priority projects, Table 2 presents other related projects that are recommended as part of the near-term CIP. These additional efforts include implementing a system-wide condition assessment program using CCTV inspection beginning in FY2008<sup>2</sup> and completing ongoing SSACIP and capital projects.

## 2.3 Project Schedules

Proposed schedules for the FY2007 priority projects are presented in **Table 3**. FY2008 and FY2009 activities include only include projects that are initiated in FY2007. A long-term CIP will be developed by the end of 2006 that identifies projects that will begin design in FY2008 and later. This schedule will be updated and augmented at that time to reflect the final strategic capital improvement plan.

# 3 Summary of Project Drivers

## 3.1 Decision Model

RMC created and implemented a decision analysis model to develop an initial list of FY2007 priority projects. Technical Memorandum CIP-1, attached, describes model components, including the process, criteria, and metrics used. Although the decision model captures the most significant project drivers, there is a component of CIP development that cannot be mechanized. This component relies on the facility knowledge of operations and technical staff, and the relationships between various projects (e.g., in general, downstream capacity improvements should be completed before upstream improvements). Therefore, the initial list was reviewed by the project team and discussed with District operations staff and Nute Engineering to make sure that overriding criteria driving project development were accurately addressed.

## 3.2 Additional Project Drivers

Additional project drivers that were considered in the final list of priority projects include:

1. **Proximity of priority and non-priority projects.** Projects located in the same general proximity were combined to minimize construction impacts and optimize costs. As a result,

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<sup>2</sup> FY2007 priority projects involving collection system rehabilitation incorporate CCTV inspection; therefore, the system-wide approach is not recommended to begin until FY2008.

some projects that were not initially flagged as priority projects moved onto the priority list. These projects include portions of the Creek/Bolinas/Cascade, SFD/Shady Lane and Woodland/Goodhill projects.

2. **Interface with other agencies or property owners.** Several projects are located adjacent to other utilities (e.g., water pipelines) with planned construction in FY2007, or in areas with known property or permitting issues. Although project design is planned for FY2007, construction has been deferred to FY2008. These projects include portions of SFD/Shady Lane and Sequoia Park/Olive projects.
3. **Need for accelerated sewer rehabilitation.** The District is committed to rehabilitating at least two miles of sewer pipe every fiscal year. In order to meet this requirement, individual sewer projects in areas where construction during FY2007 appears achievable were included on the priority project list. These individual sewer rehab projects are collectively named Olive/North/Cypress, and include pipelines with known maintenance issues located on nine streets within the District's service area.

### 3.3 Next Steps

In order to maintain the proposed project schedule, and in particular, to maximize the length of sewer pipe that is rehabilitated in FY2007, it is important that the District initiate CCTV, predesign, and design phases of the priority projects in summer 2006. Depending on project location and potential impact, these early project tasks may include a public outreach or environmental component.

**Table 1  
RVSD Sewer System Assessment and Capital Improvement Planning  
Project Cash Flow for FY07 Priority Projects**

Task Name/Subtask (Project ID)	Total Capital Cost	Total Footage	FY2007 (\$000)	FY2008 (\$000)	FY2009 (\$000)	Notes
<b>1. Techite Force Main (F-1)</b> a. Preliminary Design b. Final Design c. Bid Period - Phase 1 d. Construction - Phase 1 e. Bid Period - Phase 2 f. Construction - Phase 2	\$6 to \$12.5 M (use \$9M average)	8,000 ft.	216 864 0 0 0 0	0 0 0 3,960 0 0	0 0 0 0 0 3,960	All Design in FY07. Construction phased across FY08 and FY09.
<b>TOTAL FORCE MAIN PROJECTS</b>			1,080	3,960	3,960	FY08 and FY09 Design & Construction Costs will be updated in late 2006 to include long-term CIP projects.
<b>2. Bon Air Tunnel (R-3)</b> a. Bid Period b. Construction	\$1,303 M	3,000 ft.	0 1,303	0 0	0 0	
<b>3. Creek/Bolinas (S-4) combined with Cascade Sewer (R-4) &amp; Wood Lane (R-67)</b> a. Design b. Bid Period c. Construction	\$3.033 M	7,652 ft.	364 0 0	0 0 2,669	0 0 0	
<b>4. Sir Francis Drake/Winship (S-10) Combined with Winship Park (R-9), Sir Francis Drake (R-7), Bolinas/Fernhill (S-11), Upper Shady Lane Trunk Sewer (S-12), and Winship Collection System (R-68)</b> a. Condition Assessment b. Design c. Bid Period d. Construction	\$7.118 M + \$74k condition assessment	19,371 ft.	74 854 0 0	0 0 0 5,220	0 0 0 1,044	
<b>5. Woodland/College (S-15) combined with Goodhill (S-14) and Kentfield Relief Sewer (S-16)</b> a. Condition Assessment b. Design c. Bid Period d. Construction	\$3.072 M + \$37k condition assessment	5,850 ft.	0 0 0 0	37 369 0 0	0 0 0 2,703	Design will be accelerated to FY07 if possible after review of final project costs for other priority projects.
<b>6. Sequoia Park (R-8, 10, 11) and Sequoia Collection System (R-69) combined with Olive Avenue (2007) and Tozzi Creek Crossing (R-5)</b> a. Condition Assessment b. Design c. Bid Period d. Construction	\$6.374 M + \$74k condition assessment	21,951 ft.	74 459 0 0	0 306 0 2,805	0 0 0 2,805	
<b>7. Olive-Walnut; North-Hill; Holcomb-Monte Vista; San Anselmo (Ave.); Hickory; Cypress (R-70)</b> a. Condition Assessment b. Design c. Bid Period d. Construction	\$3.387 M	11,010 ft.	0 406 0 2,980	0 0 0 0	0 0 0 0	2 miles of collection system piping rehab to be completed in FY07
<b>TOTAL GRAVITY SEWER PROJECTS</b>			\$6,514	\$11,405	\$6,552	FY08 and FY09 Design & Construction Costs will be updated in late 2006 to include long-term CIP projects.
Condition Assessment			147	37	0	
Design			2,083	675	0	
Construction			4,283	10,693	6,552	
Additional system-wide condition assessment Projects in progress not listed above SSACIP through end of 2006			0 150 500	283	320	FY2007 CCTV for planned projects only. In future years, cost includes 200k feet of CCTV inspection annually, or CCTV of all system pipes within approximately 5 years.
<b>OTHER CAPITAL EXPENDITURES</b>			\$650	\$283	\$320	
<b>TOTAL CAPITAL BUDGET</b>			\$7,164	\$11,688	\$6,872	



## Draft Final Technical Memorandum CIP-3

### RVSD Sewer System Assessment and Capital Improvement Planning

**Subject:** Prioritization Criteria and Preliminary Results

**Prepared For:** Paul Causey, Interim District Manager, RVSD

**Prepared by:** Vivian Housen

**Reviewed by:** Gisa Ju

**Date:** January 31, 2007

**Reference:** 0147-001

In July 2006, RMC and Ross Valley Sanitary District (District) staff established initial prioritization criteria to be used in development of the Fiscal Year (FY) 2007 Capital Improvement Plan (CIP). This criteria, formalized in Technical Memorandum (TM) CIP-1, addressed issues related to pipeline projects, with a focus on the gravity sewer system; a preliminary assessment of the District's force mains and pump stations identified one urgent force main project and no critical pump station projects. TM CIP-3 expands upon information presented in CIP-1 to include prioritization criteria and metrics that are relevant to the District's long-term force main and pump station rehabilitation needs.

This TM is organized as follows:

- Background
- Prioritization Criteria
- Weighting of Criteria
- Project Performance Metrics
- Preliminary Prioritization Results

## 1 Background

Facing a number of challenges relating to the condition, capacity and operation of its collection system facilities, the District is completing several ongoing planning efforts to identify effective solutions to address these challenges:

- Sanitary Sewer Hydraulic Evaluation and Capacity Assurance Plan (SHECAP). This work evaluated trunk sewer facilities and flows, and recommended upgrades to larger-diameter trunk sewers in an effort to minimize the potential for capacity-related sanitary sewer overflows. SHECAP also identified potential capacity constraints in some smaller-diameter sewers that could be addressed in conjunction with trunk sewer rehabilitation and replacement. A final report summarizing the SHECAP effort was completed in August 2006.
- Sewer System Management Plan (SSMP). An initial "Gap Analysis," completed in late 2005, assessed District operations and documentation with regard to SSMP requirements of the Regional Water Quality Control Board and State Water Resources Control Board. The Gap Analysis identified potential areas that require attention during development of the District's

SSMP. The first four elements of the District's SSMP were completed in August 2006, and a final draft of the remaining elements will be completed in January 2007.

- History Inventory Maintenance Condition Assessment System (HIMCAS). This effort mapped existing facilities and maintenance information in a GIS database for future use by the District. Initial HIMCAS mapping was completed in late 2005; the database is a working document that is updated by District staff. Efforts are ongoing to add Computerized Maintenance Management System (CMMS) and sewer inspection and condition assessment functionality to the underlying program (Munsys) driving HIMCAS.
- Sewer System Assessment and Capital Improvement Planning (SSACIP). The goal of the SSACIP is to develop a long-term strategic replacement and rehabilitation plan in the form of a comprehensive, prioritized CIP. This effort began with assessments of the District's gravity sewer, force main, and pump station facilities, using information from HIMCAS and considering findings from SHECAP. Assessment results, recommended improvements, and their associated costs and impacts were documented in individual facility master plans. Critical recommendations were prioritized and presented as the District's FY07 CIP. SSACIP will incorporate the FY07 CIP into a long-range Capital Improvement Strategic Plan that draws upon information from the facility master plans. The strategic CIP will be completed in January 2007.

Key steps in development of the long-range CIP include:

1. **Identify Prioritization Criteria.** These criteria represent the driving forces behind the recommended improvement projects and reflect the goals of the District.
2. **Assign Relative Weights to the Criteria.** This task involves defining the relative importance of the identified criteria.
3. **Establish Project Metrics and Evaluating Proposed Projects.** With the criteria and weighting defined, determine metrics that will be used to evaluate each of the improvement projects with respect to these parameters, and to conduct this evaluation.
4. **Develop Project Rankings.** A decision model will be used to develop a prioritized list of improvement projects based the above evaluation.
5. **Identify Overriding Factors.** In general, highest scoring projects should receive the highest priority for implementation. However, there are some cases where project-specific constraints may override the project ranking.
6. **Develop Prioritized Cash Flow & Schedule.** The final step in the process is to work with District staff to develop a cash flow and schedule that balances improvement needs with projected funding.

This memorandum describes potential Prioritization Criteria and Weighting (Steps 1 and 2) for consideration by the District in development of the Strategic Plan, presents potential project performance metrics by which each improvement project may be evaluated (Step 3), and establishes a preliminary project ranking (Step 4).

## 2 Prioritization Criteria

The District's Mission is *"to provide the highest quality and most cost-effective wastewater collection possible for its constituents by meeting the following goals:*

- *Be available and responsive to the needs of the public*
- *Perform preventive maintenance on all collection system components*
- *Proactively identify and correct public sewer system defects*
- *Work cooperatively with local, state and federal agencies*
- *Uphold the District's standards and specifications on newly constructed public and private sewers”*

The prioritization criteria shown in **Table 1** were developed to support the District’s goals, and are presented for consideration by District staff:

**Table 1 - Prioritization Criteria**

Criteria	Project Attributes
<b>Traffic Impacts / Temporary Shutdowns / Residential Impacts</b>	<ul style="list-style-type: none"> <li>• Minimizes temporary shutdowns that could result in a system failure or operational issue; and/or</li> <li>• Minimizes potential traffic impacts from system failures; and/or</li> <li>• Minimizes potential impacts to residences or public gathering places from system failures</li> </ul>
<b>Pipeline Rehabilitation or Replacement Length</b>	<ul style="list-style-type: none"> <li>• Contributes to rehabilitation of 2 miles of pipe per fiscal year or equivalent, as required to meet conditions of District’s Consent Decree</li> </ul>
<b>Regulatory Compliance including SSO Reduction / Safety</b>	<ul style="list-style-type: none"> <li>• Needed to comply with existing regulations (e.g. reduces risk for Sanitary Sewer Overflows, provides firm capacity, and/or meets other SSMP requirements); and/or</li> <li>• Addresses safety issues presented by the facility</li> </ul>
<b>Large-Scale Impact Involving Trunk System Facilities</b>	<ul style="list-style-type: none"> <li>• Addresses capacity deficiencies or reliability issues in an existing trunk sewer that could result in SSOs; and/or</li> <li>• Is integral to the larger sewer / force main system</li> </ul>
<b>Operational Efficiency/Aging Infrastructure</b>	<ul style="list-style-type: none"> <li>• Maintains or improves the management, operational efficiency, and reliability of the system; and/or</li> <li>• Extends the useful life of the facilities</li> </ul>

### 3 Weighting of Criteria

**Table 2** presents proposed weights for the criteria identified for consideration as part of the Strategic Plan, with 5 being most critical to the District, and 1 being less critical but still highly important for the District to achieve its goals.

**Table 2 - Criteria Weighting**

Criteria	Relative Weighting	
	Score (1-5)	% of Total
Traffic Impacts/Temporary Shutdowns	3	14.3%
Pipeline Rehabilitation or Replacement Length	5	23.8%
Regulatory Compliance	5	23.8%
Large-Scale Impact	5	23.8%
Operational Efficiency/Aging Infrastructure	3	14.3%
<b>Total</b>	<b>21</b>	<b>100%</b>

## 4 Project Performance Metrics

Project metrics are benchmarks that will be used to determine to which degree each project meets the prioritization criteria described above. **Table 3**, included on the following page, presents a summary of the performance metrics identified for consideration as part of the Strategic Plan.

## 5 Preliminary Prioritization Results

Project recommendations from the gravity sewer, force main, and pump station master plans were scored and ranked based on the criteria, weighting, and metrics discussed above. **Table 4** presents the preliminary project prioritization, which assigns the highest rankings to the projects with the highest scores. These rankings will be used to develop the long-term Capital Improvement Strategic Plan (CIP).

The CIP will further expand this project list into a long-term strategic implementation plan that focuses on the following four objectives with regard to implementation: 1) address the most critical projects early; 2) meet or exceed legal requirements for pipeline inspection and replacement; 3) address a combination of sewer, force main, and pump station needs each year, in a manner that optimizes overall cost and coordinates with other infrastructure projects within District boundaries; and 4) balance pipeline inspection, design, and construction activities through each fiscal year. The CIP is presented in Technical Memorandum CIP-4.

Table 3 - Project Performance Metrics

Criteria	Performance Metric	
	Project Score	Description
<b>Traffic Impacts/Temporary Shutdowns</b>	<b>10</b>	Reduces risk of <b>high</b> traffic, shutdown-related, or residential/public impacts in the next 5 years, including: <ul style="list-style-type: none"> <li>- temporary interruption of service to <i>large number of</i> customers; and/or</li> <li>- <i>significant</i> traffic or residential/public impacts from failed infrastructure</li> </ul>
	<b>7</b>	Reduces risk of <b>moderate</b> traffic, shutdown-related, or residential/public impacts in the next 5 years, including: <ul style="list-style-type: none"> <li>- temporary interruption of service to <i>some</i> customers; and/or</li> <li>- <i>moderate</i> traffic or residential/public impacts from failed infrastructure</li> </ul>
	<b>3</b>	Reduces risk of <b>low</b> traffic, shutdown-related, or residential/public impacts in the next 5 years, including: <ul style="list-style-type: none"> <li>- temporary interruption of service to <i>limited number of</i> customers; and/or</li> <li>- <i>low</i> traffic or residential/public impacts from failed infrastructure</li> </ul>
	<b>0</b>	Does not address traffic, residential/public, or shutdown-related impacts.
<b>Pipeline Rehabilitation or Replacement Length</b>	<b>10</b>	Rehabilitates 3000' of pipe or greater.
	<b>9</b>	Rehabilitates 2000' to 3000' of pipe.
	<b>7</b>	Rehabilitates 1000' to 2000' of pipe.
	<b>5</b>	Rehabilitates up to 1000' of pipe.
<b>Regulatory Compliance (SSOs, SSMP)</b>  Note: Score increased one level if SSO will impact sensitive environment	<b>10</b>	Predicted overflow in 5-year design storm >400,000 gal OR resolves a historical or documented overflow OR addresses a critical safety concern
	<b>9</b>	Predicted overflow in 5-year design storm >100,000 gal
	<b>8</b>	Predicted overflow in 5-year design storm >10,000 gal OR provides safety improvements following best management practices
	<b>7</b>	Predicted overflow in 5-year design storm >1,000 gal OR resolves a known issue (such as a structural or grease problem) with the potential to cause future SSOs
	<b>5</b>	Predicted surcharge in 5-year design storm within 3 feet of ground surface OR provides less-critical safety improvements
	<b>3</b>	Predicted surcharge in 5-year design storm >3 feet below surface
	<b>0</b>	No predicted surcharge or safety improvements
<b>Large-Scale Impact (Trunk System)</b>	<b>8</b>	Trunk line or incoming/outgoing pipeline modeled in SHECAP and 18" diameter or greater.
	<b>5</b>	Trunk line or incoming/outgoing pipeline modeled in SHECAP and less than 18" diameter
	<b>3</b>	Not modeled in SHECAP.
<b>Operational Efficiency/Aging Infrastructure</b>	<b>10</b>	Provides critical redundancy or improvement to O&M
	<b>5</b>	Provides level of redundancy or O&M consistent with good operating practices;
	<b>0</b>	Does not address an identified operational efficiency/aging infrastructure

**TABLE 4**  
**RVSD CIP - Preliminary Project Prioritization**

Project Name	Facility	Total Length (ft.)	Estimated Capital Cost (\$000)	Reg Compliance	Large-Scale Impact (increase 1 step if environmentally sensitive)	Legal Compliance (pipe length)	Operational Efficiency/ Aging Infrastr.	Traffic, Residential, Public Impacts and/or Utility Crossings	Total Weighted Score	
			<b>Weight</b>	5	5	5	3	3		
Techite Force Main	FM	8,000	\$ 7,194	8	8	10	10	10	190	
Bon Air Tunnel	SEWER	3,000	\$ 1,303	8	8	10	10	10	190	
Sir Francis Drake/Winship Combined with Winship Park (R-9), Sir Francis Drake (R-7), Bolinas/Fernhill (S-11), Upper Shady Lane Trunk Sewer (S-12), and Winship collection system (R-68)	SHECAP /SEWER	19,400	\$ 6,048	10	5	10	10	10	185	
Woodland/College combined with Goodhill (S-14) and Kentfield Relief (S-16)	SHECAP	4,200	\$ 3,109	10	8	10	5	10	185	
Creek/Bolinas combined with Cascade Sewer (R-4) and include Wood Lane (R-67)	SEWER	7,700	\$ 3,037	10	5	10	10	3	164	
Miracle Mile	SHECAP	3,254	\$ 1,747	10	5	7	10	7	161	
Sequoia Park. Combine with Olive Ave (N, S, E, W Streets) (2007) and Tozzi Creek Crossing (R-5). Include Sequoia collection system (R-69)	SEWER	22,000	\$ 6,374	10	0	10	10	3	139	
Hillside Ave.	SEWER		\$ 1,134	10	0	10	10	3	139	
Redhill Ave.	SEWER		\$ 545	10	0	7	10	7	136	
Olive-Walnut, North-Hill, Holcomb-Monte Vista; San Anselmo Ave; Hickory; Cypress	SEWER	11,010	\$ 3,387	8	3	10	10	0	135	
Spruce/Park/Merwin/Broadway	SHECAP	2,405	\$ 1,754	8	8	5	0	10	135	
Laurel Grove/McAllister	SHECAP	2,256	\$ 951	8	5	9	0	7	131	
Magnolia	SHECAP	2,271	\$ 838	8	5	9	0	7	131	
Upper Butterfield	SHECAP	3,836	\$ 1,586	9	5	10	0	3	129	
William/Holcomb/Meadowood	SHECAP	3,023	\$ 1,306	9	6	9	0	3	129	
Cascade	SHECAP	1,727	\$ 573	8	5	7	5	3	124	
Greenbrae FM Replacement	FM	2,900	\$ 1,982	0	8	9	5	7	121	
Sonoma/Nokomis	SHECAP	2,765	\$ 1,789	7	5	7	0	7	116	
PS34 - 359 Riviera Circle PS	PS		\$ 248	10	3	0	10	7	116	
PS35 - Corte del Coronado	PS		\$ 248	10	3	0	10	7	116	
PS36 - 178 Riviera Circle	PS		\$ 248	10	3	0	10	7	116	
Sir Francis Drake/Berry	SHECAP	1,103	\$ 472	5	5	7	0	10	115	
Highway 101 FM Replacement	FM	700	\$ 182	10	3	5	5	3	114	
Lower Butterfield/Meadowcroft/ Broadmoor/SFD	SHECAP	3,543	\$ 1,985	8	5	5	0	7	111	
Westbrae/Hawthorne	SHECAP	1,278	\$ 425	5	5	7	5	3	109	
PS 13 - Greenbrae	PS		\$ 265	8	8	0	5	3	104	
PS 14 - Larkspur	PS		\$ 111	8	8	0	5	3	104	
PS20 - Landing A	PS		\$ 258	10	3	0	5	7	101	
PS 12 - Bon Air	PS		\$ 364	10	3	0	5	7	101	
The Alameda/Brookmead	SHECAP	1,643	\$ 766	5	8	5	0	3	99	
Manor Easement	SHECAP	864	\$ 339	5	5	5	0	0	75	
Riviera Circle FM Replacement	FM	350	\$ 66	0	5	5	5	3	74	
PS 30 - Heather Garden	PS		\$ 92	7	3	0	5	3	74	
PS21 - Highway 101	PS		\$ 60	7	3	0	5	3	74	
Eliseo	SHECAP	218	\$ 66	3	5	5	0	3	74	
PS15 - Kentfield	PS		\$ 154	0	8	0	5	3	64	
PS31 - Via la Brisa	PS		\$ 213	0	3	0	10	3	54	
PS 32 - Corte del Bayo	PS		\$ 213	0	3	0	10	3	54	
PS22 - Cape Marin	PS		\$ 43	0	3	0	5	3	39	
PS 23 - Capurro	PS		\$ 43	0	3	0	5	3	39	
PS 24 - Eliseo	PS		\$ 68	0	3	0	5	3	39	
PS 25 - South Eliseo	PS		\$ 94	0	3	0	5	3	39	
PS37 - Larkspur Plaza	PS		\$ 43	0	3	0	5	3	39	
PS 33 - 415 Riviera Circle	PS		\$ 43	0	3	0	5	3	39	
Misc Projects - Cathodic Improvements / Inspections	FM		\$ 496	0	0	0	10	0	30	
PS 10 - Landing B	PS			Pump Station Under Construction (Rehabilitation)						
<b>Total</b>		109,446	\$ 52,262							

they're going to do it and they're not proposing how they would do it. They're talking very generally in terms of pushing it down to the local government. We *are* local government. They don't have a solution and this would not be the total solution; this is part of a plan to find money. The questions they're asking are: Should special districts with uncontested seats be rolled up into other special districts? Should special districts be eliminated at large? Although those questions won't be specifically answered in the next 70-90 days, all of the teams we met with were pretty confident that some end product will come out of this LAO discussion within the next legislative year.

In response to questions from Director Egger, Mr. Richards explained the District's history with GAC, whose specialty is specifically government and/or non-profit, and noted that their rates are particularly lower than the top 5 firms. GAC does *not* represent companies like PG&E, Dow Chemical or Comcast. Mr. Richards also pointed out that GAC is trying to build a relationship with Mr. Huffman following our opposition to his AB 1232. The District even offered to sponsor AB 964 for him and testify in the Assembly on his behalf in support of the bill. Mr. Huffman said he wanted this bill under his signature.

Director Meigs wanted to know if mandating laterals would be part of AB 964. Mr. Richards said the guts of the bill haven't been written yet. But the bill in its current state wouldn't impact a sewer management team and its laterals.

This item was for discussion purposes only and the Board took no action.

**Item #5-AUTHORIZE BOARD MEMBERS' ATTENDANCE AT THE SPECIAL DISTRICT & LOCAL GOVERNMENT INSTITUTE'S ADVANCED STUDIES SEMINAR, INDIAN WELLS, CA** General Manager Richards reviewed the staff report and said staff doesn't need to attend this seminar. He noted that most of the senior staff is certified. These special intensive seminars are not regularly given but are needs driven and are always quite good. This year's program is entitled "The Exceptional Agency."

President Johnson commented that she went to a special studies seminar on governance a year ago and it was very, very well designed and very informative. Director Guasco said he attended all the special district seminars and got certified. What's excellent about the program is that you're in a room 8 hours a day doing homework and comparing notes with people who are doing what you do. He highly recommends the SDI seminars and would like to attend this advanced studies one.

After a short discussion, M/S Guasco/Sullivan to authorize Board Members' attendance at the Special District & Local Government Institute's Advanced Studies Seminar, Indian Wells, CA. The motion carried unanimously.

**Item #6-RATE STUDY WORKSHOP** General Manager Richards reviewed the staff report and observed that we've been talking about rates for a couple of years. Shortly before he arrived, there was a rate increase under the interim leadership. And it's been incorrectly identified repeatedly. Much of that increase was for bonding for our treatment plant facilities. Some of it was for the District as well, but primarily the District borrowed money to fund the

next several years of its capital program. When Mr. Richards was here about 3 months, he began approaching leadership and letting them know we could not maintain the level of capital investment that we were making and that we had planned and committed to make with our current funding structure. We caught a lucky break with the Kentfield Force Main Project when the Kentfield School District asked us to please hold the Woodland/College/Goodhill Project one year for their safe routes to school because the Town of Ross is using the Kentfield School System during the summers under a contract agreement. We worked with Kentfield, which paved the way for the good relationship we have with them now. We also had a challenge with the very large \$8-13 million Kentfield Force Main Capital Project and resistance at the county and with several environmental groups. The District was just about at a stalemate, i.e. the project was moving forward but very slowly, and we looked at the project, and current staff recommended to the Board that we actually switch alternatives to make the project overall easier and to make friends with several members of the community, including some environmental groups. By making that change, we postponed the 2 projects each *one year*. That was what gave us healthy reserves at the end of Mr. Richards' first 15 months or so and primarily funded the last year's \$11.5 million capital work. And we still have a lot of work to do.

Tonight you're going to see staff's best effort at giving you an accurate picture of who we are in both a local and a larger context, and some recommendations to think very seriously about in terms of where this organization needs to go to be a good or even a great sanitary district. And don't let anybody trick you into believing that Ross Valley hasn't done its job. The brutal, hard honest truth is that the whole nation hasn't done its job in terms of water and wastewater infrastructure. The following video will explain that in detail.

There was a 15-minute video presentation of "Liquid Assets: The Story of Our Water Infrastructure" by Penn State Public Broadcasting. President Johnson commented that there was a 45-minute version of this video, which she has seen. It is *really* informative and *very, very* interesting if you're in this industry. She highly recommends it.

Mr. Richards gave a 54-slide presentation, which is posted on the District's website at <http://www.rvsd.org/meetings/agendas-and-minutes-archive>. Click on Informational Handouts adjacent to the meeting date of April 7, 2011.

SLIDE 1 The reason why we're here tonight, said Mr. Richards, is that your staff wants you to own the issue (of rebuilding infrastructure) in Ross Valley the way Major Shirley Franklin did in Atlanta. We want you to think of it in those terms. We are a privileged community of the Bay Area; we're an old San Francisco bungalow community. Our collection systems are old; San Rafael's collection systems are old; Mill Valley's collection systems are old; SASM's collection systems are probably older than ours in some cases because I'm assuming people settled right off the water before starting to move north; and we have a system that's over 100 years old.

There was some terminology used in "Liquid Assets" that he would like the Board to take note of. *End of useful life* for a pipeline. We're going to show you some things over the next several slides about your sewer system and your community and how its life has evolved.

SLIDE 2 We're going to talk briefly about what we've accomplished, and then we're going to go right into what we need to do.

SLIDE 3 In October 2008, you hired a new general manager, Mr. Richards, through the interview process. Through the following 3 months of meetings and through private meetings one-on-one with your team at that time, we developed basically 6 objectives that were the highest importance to your Board.

SLIDE 4 The first objective—you made it very clear to him—was to relocate Ross Valley Sanitary District off CMSA and into independent facilities. It took about 10 months to really get that established. Then it took another 4 or 5 months to finally complete it. It was nothing short of a challenge. We have a binder at the office of the properties we looked at and the process we went through. Anybody can look at that any time they'd like.

SLIDE 5 The second objective you gave him was to find an end to the Campus Property Agreement, returning 2000 Larkspur Landing Circle to the ratepayers of the Ross Valley.

SLIDE 6 The objective you gave us and made a focal point was to implement an annual creek-testing program.

SLIDE 7 The fourth objective that you gave us was to stop the uncontrolled expenditure and expansion of CMSA.

SLIDE 8 The fifth objective you gave us was to implement a progressive and effective public outreach program.

SLIDE 9 The sixth objective, which probably should be the first objective, was to build an industry leading sanitary district. We spent many, many questions and several hours and about 3 trips up to Ross Valley during the interview process talking about the kind of district you wanted to build in the future.

SLIDES 10-11 How did we perform in that regard? With regard to objective 1, relocating RVSD off CMSA, we accomplished that.

SLIDE 12 With regard to objective 2, finding an end to the Campus Property Agreement, we accomplished that in the last 3 weeks or so, finally. It was a very long process.

SLIDE 13 With regard to objective 3, implement an annual creek-testing program, we not only implemented it within the first 20 months, but we now have a 2-season testing program—dry season and wet season. And we're working side by side with Friends of Corte Madera Creek Watershed.

SLIDE 14 With regard to objective 4, we began to take aggressive steps to stop the uncontrolled expenditures and expansion of CMSA. And then as a District we began to lose focus or break down or at least not have consensus on how we should go forward doing that. Little progress has been made for about the last year.

SLIDE 15 With regard to objective 5, implement a progressive and effective public outreach program, due to some community pressure we're going to talk about, that was kicked off to glowing reviews. There seemed to be great satisfaction and a lot of positive feedback. More recently in the last 12-15 months, the public outreach program has been, in his opinion, a bit stifled. We're going to talk about that.

SLIDE 15 With regard to objective 6, build an industry leading sanitary district, we're in the process. Your Board took more action 5 years ago than any other sanitary district in this region and it's laudable. Unfortunately, it's not enough. That's what we're going to talk with you about tonight.

SLIDE 17 Why is objective 4, stop the uncontrolled expenditures and expansion of CMSA, hindered? From his education, experience and position, the first reason this has been hindered is what's called the Alinsky Principle, which is based on Saul Alinsky's philosophy of radical defiance against organization, and taking movements apart through conflict. You can google him; he's a fascinating individual. We did a complete study of him in graduate school. He was a diehard Communist but Mr. Richards thinks he was really a socialist. He had the public's interest at heart to one degree or another. But his guiding philosophy was create so much conflict that the people want change, no matter what the change is. And if you keep creating and accelerating conflict long enough and hard enough, eventually the people will get the change you want and not succeed at their goals. Then there's political peer pressure. It's been advertised so broadly that it's obvious. There are 7 or 8 people that do not want us to succeed.

Another reason objective 4 is hindered is because we don't have, or we have evolved in and out of, a unified methodology We're 5 board members; we're one general manager; we're 32 employees, but we don't frequently move as one unit. We have at times and we have not at times. The only way we're going to be the best sewer district we can be is if we decide on a strategic goal *together* and move as one unit *together*. He's not talking about minutia and positions and opinions; he's talking about the strategic goal and the intentions of the District.

SLIDE 18 Mr. Richards wanted to spend some time on why our public outreach program has changed or at least some ideas and concepts about why it's changed. There was basically no public outreach program when Mr. Richards got here. He wrote the first newsletter in almost 2 years. There was a great quote by one of our Board directors that we added. We got *harshly* criticized for that first newsletter. Unintentionally, we didn't mean to take a position on desal. But we were trying to be environmentally friendly and we got a lot of flack for it. Frankly, with regards to our outreach program, there are too many voices. You select a team, you give them a mission to do something, and then too many different people try to tell the *team* where to go and what to do. And the team ends up going nowhere or at least not very far in one direction.

Mr. Richards thinks there was been political peer pressure by 7 or 8 people. And the Alinsky Principle is also involved. He believes the reason this has occurred is because of the

effectiveness of our outreach program. Because it was good. It is good. And it can be better. We did a great job in getting the truth out to our ratepayers.

In Sacramento, when we meet with the leaders and the consultant teams, *every single one of them* said *any* part of *any* effort to make a point at the Capitol should be working in lockstep with a PR member from somebody in your community that *knows* your community, that supports you in your community. Every single one of them without exception said that should be a critical part. We should we reaching our community through billing, if you can do direct billing, and through a newsletter, if you can do newsletter. Mr. Richards saw that CMSA recently went to a monthly newsletter and they added color to their newsletter. Before, it was black and white and it was occasional. Get to the people. Tell them what you're doing. Tell then why you're doing it. Tell then how good of a job you're doing at it. If you don't do that, you're going to lose.

SLIDE 19 Why does objective 6 need to accelerate? Objective 6 is build an industry leading sanitary district. Being a mathematical type he figured he needed a formula. How do we accelerate it? One hundred seventy divided by 2.

SLIDE 20 One hundred seventy equals the amount of Ross Valley sewer pipe line which needs to be replaced in less than 10 years. That is infrastructure that is approaching critical mass and is going to enter into catastrophic mode and needs attention.

SLIDE 21 Two equals the miles of pipe per year the District chose to do under your reform Board's leadership starting about 4 and a half years ago. Whereas before that, the District was doing, on a *good* year, approximately pay-as-you go 1 mile, taking occasional years off. Over about 6-8 years though—if you exclude this last year, which was an anomaly—we're right about 2.1 miles a year. If you add last year in—which is unsustainable, quite frankly—we're about 2.6 miles. Again, he would not add this past construction season.

SLIDE 22 So if you take 170 miles of critical infrastructure and you divide it by 2, which is the number of miles you're replacing, basically in about 85 years you will have solved your problem. The problem is that during this 85 years, your existing 90-year infrastructure is aging at a rapid pace.

SLIDES 23-24 Most of this pipe needs to be replaced now! It's been in the ground since pre-1960s, in some cases pre-1940s, and in several instances pre-1920s. So over an 85-year replacement cycle, some existing pipe will exceed 150 years old—almost 3 times the useful life of the pipe. That's an absolutely unreasonable scenario. And when you're letting these numbers float through your mind, remember that percentage wise we're doing more than any other sanitary district in the area as a percentage of their sewer district today. Keep that in mind in the context of what we're doing.

SLIDE 25 Some of the pipe in the 85-year cycle of replacement will exceed its own useful life during the cycle and before older pipe, that needs to be replaced now, will get replaced.

SLIDE 26 So what does this look like?

SLIDE 27 Mr. Richards created a picture. Over here is the 170 miles, i.e. the estimated miles of pipeline which you have in the Ross Valley that urgently needs repair. This does not include large diameter pipe. It doesn't include pipe that was put in in the last 15 years. As of the end of the next construction season, we'll no longer include your Kentfield force main because that will be done. And as of this year it no longer includes Kent/Woodlands, the 2 highest areas of need in the District. Taking out those, we have approximately 170 miles of mostly gravity pipe that is well over 40 years old and some of it is 80-90 years old.

This table is broken up into 5-year increments and has 3 rows. ROW 1: This part of the table represents total miles at/or approaching end of us. Each of these little boxes represents 5 years starting with last year. ROW 2: This part of the table representing existing pipe condition is in a box so it stands alone. ROW 3: This part of the table on the bottom representing new installed pipe is in a box and it stands alone.

What this slide represents is your sewer system today and what's happening to it and what's going to happen to it into the future. This is probably a little optimistic. But if you start with 170 miles, which we know that we have, and you break it into 5-year increments at 2 miles per year, which is what we've been averaging for 6 years, how much pipe are you doing in 5 years? Ten miles. So for each 5-year block, you go down the table and there's 10 miles of new pipe installed on this graph here in the second row.

So from 2010-2015 we will install 10 new miles, but 160 miles is going to get older. From 2015-2020 we're going to install 10 new miles and 150 miles of pipe is going to be 10 years older than it is today. From 2020-2025 we're going to put in 10 more miles and 140 miles of pipe is going to be 15 years older than it is today. From 2025-2030 we'll put in 10 miles and there will be 130 miles that is now 20 years older than it is today. You can follow the graph all the way forward. There's no magic, no smoke and mirrors. At 2 miles a year this is your infrastructure.

These colors are a visual representation of what's happening to the pipe in the ground. Mr. Richards is calling this first section—and it's really an unknown—but for somewhat optimistic purposes we're going to call the first 10 years unpredictable failure. In the last 2 months, his chief of operations has gone out to a job site where the side of a mountain washed down and a bunch of sewer pipe that was in the ground disappeared. It had nothing to do with the sewer. It *became* an SSO but it wasn't *because* of an SSO. It was because of 4 inches of rain in 30 hours and the side of a mountain slid down. All of a sudden the pipe was gone.

You have to assume to some degree or another that an uncontrolled failure season is coming. He's putting it at 10 years out. Realistically, it could be 4 years out or 3 years or 7 years. But it's not much farther than 10 years away. It *can't* be. Pipe can't go 100 or 110 or 120 years. It can't do that. It's more precise than predicting an earthquake, he clarified for President Johnson, but it *is* a bit fluid.

So Mr. Richards is calling from 2020-2035 an uncontrolled failure period. That's basically the rest of his career or the span of his life. At the current rate the District is putting pipe in the

ground, the District will be in this zone he's calling uncontrolled failure. He guesses that somewhere around 2025 or 2035 or 2038, this pipe, which is somewhere north of 100-120 miles, is going to begin to critically fail somewhere like this. (Mr. Richards snapped his fingers in rapid succession.) The pipe will start falling apart. That's half of the infrastructure, he clarified for Director Guasco. And this is accounting for putting in pipe. There's no magic here.

And you have to assume that when you get out to 2050 and 2060 and you're talking about 150 years of pipe in the ground, you're going to have catastrophic failure. You're going to lose your sewer system.

Director Egger asked if these pipes were also undersized and if other sanitary districts in the area had pipes that were in the same shape. Mr. Richards said we don't have enough growth for them to be undersized. We've done the math and we can actually CIPP the pipes and reduce the inside diameter, increase the flow characteristics and add 30 years of life to a pipe. He clarified that the only remaining Techite pipe is the force main, but there's also some pipes made of concrete, clay, un-reinforced concrete and various other materials. He noted that other sanitary districts are absolutely in the same shape. San Rafael is in the same position we are except that they're taking care of it significantly slower than we are. SD 2 and Corte Madera are almost in the identical situation we are, only they're going slower than San Rafael.

Mr. Richards referenced the earlier slide where he said that under an 85-year program, replaced pipe would be failing *faster* than pipe that was not replaced yet. This slide is the projected lifecycle of a normal pipe, i.e. the pipe we're putting in at 10 miles every 5 years. When we put pipe in next year it begins again. Ten years later the new pipe here is now 10 years old. So this graph represents the aging of just this new pipe and not the older pipe we haven't touched yet. So right around this range here, you now have *new pipe* reaching the end of its useful life and beginning to fail, and you haven't even solved 40% of your infrastructure problem yet. You go back to the beginning.

Mr. Richards clarified for Director Sullivan that the typical expectation for pipe is that it's a 50-year pipe, with the exception of HDPE, which is a fairly newer pipe and *appears* to be a significantly more robust pipe. He briefly described his experience in Fresno replacing clay and concrete pipes with 35 to 55-year plastic pipe.

SLIDE 28 What is our core mission really? Our core mission is to collect sewer water from the Ross Valley. That's the first thing we do. What else is our core mission? We want to work to prevent SSOs, like the unfortunate things that occurred most recently. As part of our collection of water we want to work to eliminate I/I (inflow and infiltration). I/I is the real problem in the Ross Valley. That's why in August during an average day we'll send 5 to 5 and a half million gallons to the treatment plant. And that's why in January or February we'll send 25, 35, 45 million gallons of water to the treatment plant. That's because of I/I.

Mr. Richards clarified for Director Meigs that this number has spiked at 50 million gallons. And the number from all 3 collection agencies has spiked at 120 million gallons back in 2005.

But he wanted to be clear that if you're looking at a flow graph that goes like this based on flow, and if you happen to be looking at CMSA, which is our treatment plant, and if there's a spike at 9:00 p.m. that equals a line that says 120 million, and then it goes down, 120 gallons did not go to the plant that day. That just means that if at that point it had sustained that level of flow for 24 hours, it would have equaled 120 million gallons.

We believe that we should be collecting water from the Ross Valley at a reasonable cost to the ratepayer. No joke. Five years ago he had 50 districts under his management at one time. He did 13 Proposition 218 elections in 14 months. And we were raising peoples' wastewater rates at \$250-\$350 per month. He clarified for Board members that in spite of these rate increases, Fresno wanted him to stay and they were asking him to raise the rates. He noted that we have 57,000 people here. We have a bad issue and 3 people show up. In rural Madera County, we have a rate meeting and 400 people would show up. In every single case except one, they all supported it and stood up behind him and said, We support the special district's manager. We know we have to suck it up and eat it. We know we need to make the right decision. And this was just wastewater. We also managed the water district, which was a separate entity over the same population. He was raising their sewer rates from \$175-\$205 up to \$250-\$300 per month, and he was raising their water rate from \$99-\$120-\$150-\$205 up to \$300-\$350-\$400 per month or every other month. It was many thousands of dollars a year for water and sewer. It only made one person angry that he was aware of. Director Guasco commented that that person practically ran that little rural area. Mr. Richards said his family settled it in the mid-1800s and they own the phone system. We're still friends today.

SLIDE 29 Our second core mission is performing maintenance to the sewer system. We collect the sewer water and we maintain the sewer system. That's really what we're here to do. We do this by servicing sewer lines and other appurtenances. We do this by making repairs to broken and damaged pipe. And we do this by maintaining and fixing pump stations.

SLIDE 30 Another part of our core mission, which is why we're here tonight, is replacing old pipes and pumps. We have some of the oldest in the country. We have one of the oldest systems in California. Our goal and our job should be to replace old pipes before they fail. And not only should it be our mission but we're regulated to do that. He spent a lovely day with the Regional Water Quality Control Board (RWQCB) yesterday and they take their enforcement responsibilities seriously. He would encourage the RVSD Board to take their enforcement responsibilities seriously or we'll be dealing with the RWQCB much more in the near future. Another part of our core mission is to replace old pumps before they fail.

SLIDE 31 And finally, we pay a contractor to treat our wastewater.

SLIDE 32 So if we're good at our mission, what would that look like?

Director Egger observed that there's more and more water conversation throughout the county, and less and less water is being flushed down. In addition, gray water systems are starting to be used now that would divert water we would normally get and is being used for irrigation. Is this something that helps us? Mr. Richards said that is an issue that could be used at the treatment plant first as a partial solution to some of their water-use issues. His

personal experience is that it's cost prohibitive to attempt to implement a gray water or purple pipe or brown pipe system into an existing community. Usually it's new growth where you regulate and have them install it at that time because if you have the trench open, it's pennies on the dollar to put a second pipe in. He clarified that while there *are* on site gray water systems for single-family homes or a duplex, like solar power for energy power, they usually start with a separate system for irrigation.

Director Egger said there's talk of trying to set up a major gray water program in the Ross Valley in the context of a water conservation measure. If they can reduce the amount of water coming into our system, it's going to help us. Mr. Richards noted that statistically that will have little impact on sewer collection. Our problem is I/I. It's when it rains and the ground becomes saturated and we go from 5 million gallons to 50 million gallons. Just to put this in perspective, for a gray water system costing an average of \$1.5 million a mile, we'd have to come up with \$300 million just for a new sewer system. The problem is that most gray water, purple pipe or brown pipe systems are *pressurized* systems, which is a *whole different* kind of pipe and a whole different level of safety, and the cost is significantly higher than gravity pipe.

Director Sullivan commented that a single-family home's gray water system, that collects water for irrigation from the shower, bathtub or laundry, *doesn't* alleviate the pipes or the pumps. Pipes are aging whether there's 5 million gallons going through or 4 and a half million gallons going through. Director Egger noted that if you could catch 4-5,000 gallons of rain water from your *property*, that's water that's not going to be flowing out into a potential I/I. Mr. Richards agreed that it would definitely contribute to solving apart of the problem, although it would be a lot of money for a household. In response to an inquiry from Director Guasco, Director Egger said that the state has authorized this type of gray water system

SLIDE 33 This is the second graph. It's the same graph you saw before with 5-year increments, but the figures represent 4-5 miles of pipe replaced a year instead of 2 miles a year. This row is your existing infrastructure like on the other graph. This box down here at the bottom represents the new pipe on a 4-5 mile a year plan. It's about double the pipe but there are 2 different things. First, at 2025 you no longer have a catastrophic problem, which you *do* have and are going to have. Second, you never overlap catastrophic circumstances again. You solve the sewer collection problem for future generations, which was not solved for us. Within this time you begin looking at replacing the pipe, you've finished replacing your entire system, and you're ready to look at areas that need to be replaced. Since it's 50 years down the road, at that point you're considering the products you've used, the length of those products, and how long they're going to last. Do you need to let people start retiring out of the organization and the organization gets smaller at that point because of longer life spans? Or are we still talking about 50-year timeframes for pipe? This is the scenario we're recommending to you tonight to consider.

SLIDE 34 What do we need to do? We need a rate increase. It's unpopular. People don't like to talk about it. It's a bad economy. Things aren't good. And we need staffing in order to facilitate putting pipe in the ground.

SLIDE 35 We're going to propose to you that you think about adding a draftsman/auto cad/tech writer. He doesn't know of *any* other way to explain to you how important this person is unless you come down to the District and watch how many hours the District Engineer works. He works 15 hours a day, he reads everything, he writes everything except for what we pay consultants to do on a case-by-case basis which gets approved by the Board, he is usually there at 7:00 in the morning, he's almost *always* there at 7:00 at night and sometimes 8:00 or 9:00 p.m. He needs somebody he can have look at plan sets, critique plan sets, and get back to the engineers. He needs somebody he can send into the field that can *draw* a plan set and can read or write an RFP so that his valuable time and experience is not spent writing pages of RFPs, but is spent as a District Engineer making sure our inspectors, our project managers, and our contractors get the job done right.

SLIDE 36 We need one bookkeeper. This has been recommended 2 years in a row. This is not your staff's recommendation but your outside auditor's recommendation. This bookkeeper represents a *third* tier of segregation of duties or what's known in the business as internal controls. Our auditor's recommended it 2 years in a row. About 2 years ago we weren't asking for it; we were recommending it and your Board decided not to do it. It's a feature of internal controls to protect the ratepayers.

SLIDE 37 We're recommending a new pipeline repair crew. We have 1 pipeline repair crew for 200 miles of pipeline. We're recommending 2. We'd like to have a north team and south team construction crew. Right now we have somewhere in the neighborhood of 350 repairs that we know about that need to be made. Some of those repairs are going to be accomplished with the pipe-bursting team the Board put together. We're trying to capitalize on as many as we can at the time. But the bottom line is we have 350 repairs that need to get made. *One* repair can *easily* take 3-4 days, and very few repairs only require 1 or 2 days.

SLIDE 38 We need a combo/vactor crew. Basically what we now have is 2 rodders, a north rodder and a south rodder. These are your primary maintenance tools. They go out and they rod sewer lines. What happens when we have a larger diameter line or we have an exceptional amount of debris in a line, is that we call out the combo/vactor and we shut down one of the rodders. Then we send the combo/vactor out with only one person on it, which is a *serious* safety issue or can be. The most important thing is that *maintenance* doesn't get done. If this occurred once every 3-4 months, that might be one thing. Unfortunately, this occurs several times a week. So when you factor in the maintenance that's *not* getting done when you pull staff off and put them on the combo, which is a gigantic vacuum clearer which also has water, then you're not *maintaining* a large portion of your system that's getting very old, and instead you're doing combo work. With this addition we recommend you have a *north* maintenance rodding team, a *south* maintenance rodding team, *and* a combo/vactor team that can handle large diameter intersections and pull debris out of pump stations and big lines.

SLIDE 39 We desperately need a second lift station crew. We have almost 30 lift and pump stations. Right now we do what many agencies do. We do drive-by maintenance, i.e. they drive by the lift station and make sure water is not coming out of it and then they go to the next one. If something *really* happens, then they go spend some time there and do the best

they can. Or we patch crews together. We pull people off maintenance teams, where we break up our construction crew and send construction members with pump station crew. With almost 30 lift and pump stations and the age of our system, we need a second crew out there so we can manage the pump stations correctly.

SLIDE 40 This is what that looks like. To make it easy, this org chart is not the way your organization looks today. Today we have 38 employees. We are proposing a total of 11 new positions that are shown in yellow and would make a total of 49 employees. Several of the *positions* shown in yellow have not been filled. For example, we've recruited for the SCADA position and the candidate we selected didn't accept the position. So the position is approved but there's not a person in it. We're now recruiting for it again. We're recruiting for your accounting manager position. There is somebody in that position temporarily but we're going to fill it permanently. You just approved your capital pipe-bursting crew and we're filling those positions.

Mr. Richards clarified for Director Egger that since he joined the Board, 6 new employees have been added. He further explained that there's a difference between positions that were *approved already* that we *asked* you if we could fill, and adding new positions.

Mr. Richards summarized by saying this org chart represents 49 positions that are each numbered. The positions in yellow are the ones listed in tonight's PowerPoint presentation and the ones in the dollar figures you will see very shortly, which are the only ones we are talking about.

SLIDES 41-42 The rates. The big question mark. We've developed some assumptions for the rates and he wants to spend some time on that. Assumption 1 that staff made was this Board wants RVSD to be more effective overall in every aspect of the way we do business. We want to be efficient. We want to be effective. We want to maintain the system. We want to replace our pipes. We want to have a strong administration team that's doing the job well.

SLIDE 43 Assumption 2 is that this Board wants RVSD to replace old pipes and pumps, with the caveat, on some kind of schedule that causes the system to be fully converted in a timely manner that does not get to the point of catastrophic failure.

SLIDE 44 Assumption 3. There's been a lot of discussion that the difference between what an average Ross Valley ratepayer pays and what Larkspur pays is not equitable. The reason for that is because when we annexed Larkspur in 1993, the District at that time agreed to a dollar amount that did not equal the amount of Ad Valorem tax Larkspur was keeping. This means that when you add that Ad Valorem tax, Larkspur residents were paying less per sewer unit than regular Ross Valley residents. That assumption is factored into the numbers you're going to see.

Mr. Richards clarified for Director Meigs that the current rate for Ross Valley is \$520 and the Larkspur rate is \$592, which is a difference of \$70. When we annexed Larkspur in 1993, Larkspur said, We're not giving our Ad Valorem tax money to you as part of this sewer deal. We're keeping the Ad Valorem tax money. Mr. Richards noted that this doesn't include

Greenbrae and upper Larkspur, which we've maintained for 111 years. It's just the downtown portion we annexed. That value, or the *difference* between what we collect from people that live in Fairfax, San Anselmo—there's a dollar figure. That difference has been added into the Larkspur sewer *rate*, increasing it so that Larkspur residents *equivalently* will be paying the same amount as Fairfax, San Anselmo and Ross.

SLIDE 45 Assumption 4 is a critical one. Many of us were at the SDI finance seminar in San Francisco this last year. There was a whole section about AB 3030 pass-through costs that *none of us had ever heard about* until went to the training. AB 3030 was developed under the concept of a water district buying water-banked water, but it's been extrapolated out into the wastewater industry as well. Basically, what this law allows is that if you are an agency and you have costs that come to you that you cannot control and that you cannot chose to say yes or no to, for example. If times got worse than they are, in a worst-case scenario your Board could say to slow down our capital program. We're not going to spend \$5 million next year; we're going to spend \$2 million. That's your choice; you control your budget; you can say yes or no. But if you have costs that you can't control, those are pass-through costs, such as the Central Marin Sanitation Agency. In about the last 5 years give or take, their costs have gone up about 108%. That 108% was not factored in when you guys raised the rates in about 2007-2008. When you did your Proposition 218, you did not say to yourself, We think CMSA's costs are going to go up 108% over the next 5 years and we're going to *build that into* our projected budget and our rate. So what's happened effectively is that year-by-year since that rate increase, that 108% has come out of our operations budget because we can't raise our rates without doing a Proposition 218. So a component of this Proposition 218 we're recommending to you includes an 80-30-30 pass-through component. What that means to the ratepayer is that *if you* approve this, and if in July or August CMSA's budget passes and their costs go up 3.5% or 7.5% or 25%, then all we have to do for 5 years is send a letter to our ratepayers and say, We apologize. There are costs we can't control. They come from another agency. Your rate has gone up X amount and we can raise your rate so that we don't *lose our revenue to* CMSA to do that. We'll be able to do that for 5 years; it's a protection for the host district.

SLIDE 46 Assumption 5 is that San Quentin deserves an equitable rate for the service they receive and that means lower dollars. Why is that? There's a good reason why that is. The fact is that when you guys set the current strength factor for San Quentin, we were getting *exceptionally* heavy sewer water and they weight that by what's called a strength factor. It was determined over a number of testing sessions to be approximately 2.4. So we take the more or less 3,200 EDUs that San Quentin has, and for the last 3 years we multiplied it by 2.4 and came up with somewhere around 7,100. And we basically billed the state of California for 7,100 EDUs, calling it a strength factor. They were involved in the meeting and they didn't like it but we had the scientific evidence to back up that the strength of their wastewater required a multiplication of 2.4. San Quentin has taken a lot of steps to reduce that, including part of their meal program where they're using less of their kitchen. They've made changes statewide in their penal system and their strength factor has come down. Staff has been running some numbers on the lift station at San Quentin. The reality is that San Quentin is genuinely about 1; they're just about equal. They've done enough pre-treatment and enough screening and enough changes inside the prison facility that they're no longer a

2.4. So the decision you made then was proper, but we need to adjust this now so they're paying an equitable amount for the wastewater they deliver to us.

SLIDE 47 Assumption 6. We believe that in our organization the sewer rate should fund all operations. Period. Ad Valorum, if and when we have the privilege of receiving it, should only be used to enhance capital. Our sewer rate should pay for our existence. Most years over the past couple of years this has been the case. Most years previous to the last couple of years this has *not* been the case and Ad Valorum tax was overlapped over operations, and some of it was used to pay for operations. The reason this occurred was that if you look at the Ross Valley rate on benchmarks—on a graph located in Mr. Richard's office—and you watch CMSA's expenditures go up, each time CMSA's expenditures spike and go up 10-12-15%, that reduces our operations money 10-12-15%. We can't just spend money like CMSA. We can't just go take money from ratepayers. We have to do what we're doing tonight. That's why these experts are here and they're going to talk to you in a couple of seconds. But CMSA as a JPA can do that. They go out and spend 15% and we have 15% less money to spend. We've committed to put pipe in the ground; we've committed to X employees. Boom! We lose 15% of our operations money. Historically in the past, the District has taken the Ad Valorum money and overlapped operations for whatever that deficiency is. If you look at it since 1984, which is almost 30 years, there will be ebbs and flows. The sewer rate card we sent out the last 6 months that showed 54% goes to CMSA and 46% stays here, there are ebbs and flows and cycles over these 30 years where CMSA got as high as *84% of Ross Valley revenue*. There are also times when it's gotten as low as about 42% or 46%. Then it circles back up to 64%, 72%, 75% and Ross Valley raises its rates. And then it's down to 50% or 48%. It's almost an diurnal curve except it's not daily. When they do that and don't partner with us, we have to overlap operations with Ad Valorum tax dollars to compensate for the operations loss.

SLIDE 48 Assumption 7. We'd like to ask you to increase your lateral grant program to \$1 million. We had it at \$250,000 and we spent *all* of that money the first year. The second year we raised it to \$500,000 and we're well on our way to spending all of *that*. We've put in 13,008 feet or 2.46 miles of sewer laterals in less than 2 years with this grant program. By all marks it's a *huge* success. That's a great accomplishment for the District. Doubling it to \$1 million? Why not? Let's help solve the lateral problem as well. It's their money anyway, and we're giving it back to them in grants for the most critical property owners. And it's working. It's replacing sewer laterals.

SLIDE 49 Assumption 8. We'd like to add \$1.2 million in CIPP (cured in place pipe) annually, which will give us 2-4 miles per year. CIPP is not a permanent pipe alternative, but current CIPP techniques will give you about 40 years of life out of a *semi*-intact pipe, which means that for significantly less money than pipebursting or open-cut pipe replacement we can add this. This is how we get to the second scenario of pipe replacement so we can go faster than the catastrophic failure that's approaching.

SLIDE 50 The big question. The amount of the increase. The amount of the increase is one third the cost of one tire and one wheel of a BMW Series 3. That's an absolute fact. Mr. Richards was at a BMW dealer with a friend of his less than 6 weeks ago and bought a tire

and a wheel, and the amount of the increase is one third of that. It's also about 29% of one year of basic cable and Internet. That's no HDL, no Showtime, no frills. The scary one is that we're actually talking about 2 cups of Starbucks coffee a week. That's the increase we're going to propose to you. Not the short black coffee but a tall one; and if you mix it with anything it's actually about 1.7 cups of coffee a week if you're talking about a \$4 cup of coffee or a coffee and a scone. That's the rate increase we're talking about for Ross Valley and San Quentin only. This does not apply to Larkspur. Their rate increase is going to be a little bit more.

SLIDE 51 How much? Larkspur town residents will see an increase from \$538 to \$1,130 per year. Ross Valley residents will see an increase from \$384 to \$904 per. He clarified for President Johnson and Director Guasco that it's equalized, not tiered, over 5 years and the \$904 per year will solve our sewer needs for 5 years. It will pay for *known* treatment costs, *known* bonding costs for our current debt obligations, RVSD's operations and RVSD's capital program at 4-5 miles of pipe a year. *If* CMSA's costs go up more, then that is where AB 3030 would come in and we would have an option to choose *to or not to* increase the rate. San Quentin's increase would be the same as ours, i.e. \$384 to \$904.

This increase is counterintuitive. San Quentin's annual costs to the District will actually go down, even though their cost per EDU is going up. That's irony number 1. The second thing is that the amount of money that we will pay CMSA *annually* is going to drop by almost \$1 million because of EDU counts. Recall how San Quentin has worked up until this proposal. We had a strength factor of 2.4 and when we add the strength factor of 2.4 and multiply this by EDUs we come up with 7,200 EDUs because that was the way they chose to count it. And we pay CMSA per EDU. So by *increasing* San Quentin's rate from \$384 but normalizing their costs per EDU, we're going to tell the state you can save about \$800,000 to \$900,000 give or take, and the amount we pay CMSA will be almost \$1 million less a year.

Director Meigs wanted to know if the projection with this scenario was 4 miles of CIPP a year, as noted in assumption 8. Mr. Richards said it depends on where, what size and every factor you can imagine. With a bigger pipe you're going to get closer to 2 miles and with a smaller pipe you're going to get closer to 4 miles. When you get near intersections it gets more complicated and slows you down. We're pipebursting 1 mile of pipe a year. He noted that he said 4-5 miles when talking about SLIDE 33. That's the 1 mile a year of pipebursting and the CIPP would be 2-4 miles a year. It would be 4 miles in a good year. But balance that out in your mind over the long haul because we also have to do pump station maintenance, and there will be years where much of our capital program goes into pump stations and not pipes.

Mr. Richards clarified for Director Egger that the rate increases expressed as percentages would be covered in detail by the consultants.

SLIDES 52-53 The timeline. When and how do we do this? Under Proposition 218 we have to do a 45-day notice to ratepayers. You guys did that a few years ago. It's a simple form that tells them you want to raise the rate, *why* we want to raise the rate, how much we want to raise the rate, and what it's going to pay for. Then we have to have a first reading of the ordinance to change the rate. Then we have to have a protest hearing, which is an

opportunity for residents to come down and tell you that they *don't* want you to raise their rate and fix the system. Then you have to have a second reading. We'd like this to be by June so that your budget will reflect the difference in rates. We budget on a fiscal year starting on July 1. We can do this and finish at the June meeting, have the second reading and raise the rates and have a new budget.

SLIDE 54 Questions. Director Egger wanted to know how realistic it was to be suggesting these numbers to voters and having community acceptance of these numbers. He wondered what town and city councils would be saying and how they would respond. Mr. Richards said they would probably keep saying the same stuff they've been saying about 3 times a week in the *Marin IJ* now. We've become kind of desensitized to it. Board members clarified that there are several places in the area where the rates are higher, i.e. Belvedere and Tiburon, for example, which are now about \$1,200.

Mr. Richards clarified for Director Meigs that the last time rates went up in Ross Valley they almost doubled. President Johnson explained that CMSA's rates were going up 3 years in a row after they did the bonding and the Wet Weather Improvement Project. Every year it was 29% or 35% for 3 years in a row just for *that* component of it. And then the normal expenses were added onto that. It was *significant* what that \$70 million project did to *our* rate.

Mr. Richards noted that that was the biggest portion of the rate increase, i.e. specifically the bonding. The District would have gone broke if it hadn't raised rates. To put this in perspective, he said that the year before we handed over treatment operations to CMSA, the District spent \$360,000 on treatment and had 5 employees. Toady we pay \$8-9 million a year. CMSA has *aggressively* kept its plant up to date and has been recognized for it region wide. They just don't have to take any *heat* for it because they pass their costs through to us and *we* get the heat for it. But we have the same issue on a wider scale. We have a pipe issue. They're fortunate to have a plant with a gate and a building. They can take you in and say, Look, we build this thing! And it *is* a fabulous facility, Mr. Richards said. Jason deserves a lot of credit for building a heck of a treatment plant over there. The *problem* is that we have the *same* issue *under* ground that people *don't* see and it's been ignored for generations of boards nationwide. He doesn't know what people are going to say. He imagines that Dan Hillmer is going to be upset, that Mr. Weinsoff is going to have something to say, and that a few specific people are going to make really *strong* comments. And he expects subtler comments from real ratepayers that are your neighbors and our community and Larkspur. They're going to say, Why are you doing it? Our job is to tell them the truth about why we're doing it and that it needs to get done.

The Board took a break from 7:55 p.m. to 8:09 p.m.

The handouts from the following presentation made by Mr. John Farnkopf and Mr. Rick Simonson of Hilton Farnkopf & Hobson, LLC are posted on the District's website at <http://www.rvsvd.org/meetings/agendas-and-minutes-archive>. Click on Informational Handouts adjacent to the meeting date of April 7, 2011.

John Farnkopf gave a brief background of his firm and a few of their clients, and noted that they specialize in doing studies for public agencies that provide water, wastewater and solid waste services. On a scale from simple to complex, the District's situation is a little more on the complicated side, he said. Rick Simonson distributed a 2-page Briefing Sheet, which Mr. Farnkopf went through line by line. The Briefing Sheet includes the following topics: background; key modeling assumptions and policies; expense projections (revenue requirements); revenues; reserves; revenue increases; and rate structure modifications. Regarding the operating fund, Mr. Farnkopf said that funding this is a very high priority because the District is *not* like a city that has a general fund you can fall back on when the reserves dry up. And the rate structure has been modified such that the property tax that Ross Valley customers are paying is credited solely to *them* and it's not used in part to subsidize Larkspur, which has been the case.

Mr. Simonson distributed a 3-page handout entitled Sample of Marin County Sewer Service Charges. Mr. Farnkopf discussed the table and the 2 graphs in detail. Regarding historical trends shown on the first graph, he pointed out that the sanitary districts in the area have all responded with increases in sewer service charges in different ways, which has a lot to do with the regulatory orders they're responding to. For example, you're going to see some very steep increases coming out of SASM because of the recent spills. The second graph is trying to show that there is a relationship between the size of the agency and the charges—in *many* cases but not *all*. He noted that larger agencies tend to have lower charges because of economies of scale.

Mr. Simonson distributed a 1-page table entitled Summary of Rate Structure Modifications, which included 4 models of different scenarios based on the level of staffing—current staffing and additional staffing (11 positions, not 12). There were 3 columns in the table: FY10-11 representing the current rate structure; FY11-12 representing an un-modified rate structure; and FY11-12 representing a modified rate structure. Mr. Farnkopf said that based on the funding program outlined by Brett, what that proposal means is an increase of \$7 million or 45% which is distributed across the board as shown in the rates in the table. This will fund the program Brett outlined, without any additional staffing. It would fund capital improvements and reserves but it would not fund staff.

Mr. Farnkopf pointed to the rate structure with additional staffing shown on the bottom of the table. It's the same sets of rates but adding the staffing. That brings the total from \$7 million to about \$9 million and a rate change from 45% to 61%. He emphasized that this was a *summary* and not detailed.

He looked at what would happen with current staffing but making adjustments so that 1) the property taxes that Ross Valley customers pay get credited *only* to Ross Valley customers and 2) the strength factor for San Quentin is reduced from 2.4 to 1. This sets in motion something that is almost counterintuitive. When San Quentin's strength factor goes down it reduces the number of EDUs by more than half from 7,200 to about 3,100. So CMSA won't charge you as much. But *overall* their charges will have to go up a little bit for *everybody* they serve because they're charging per EDU. And even though the District's costs have come *down*, you are now

dividing those costs among *fewer* EDUs and so rates for you customers will increase. The effect of all this is that Larkspur and Ross Valley will pay more and San Quentin will pay less.

Referencing the figures at the very bottom of the page, Mr. Farnkopf noted that these numbers reflected what would happen to rates when property taxes were taken into account, i.e. when property taxes were added per EDU. He clarified for Director Meigs that these rates included fully loaded benefit packages for employees.

President Johnson observed that the increase in reserves is not shown as an isolated item in the table. Mr. Farnkopf referenced a 6-page handout with Table 1A Factors – Policies; Table 1B Summary - a graph entitled Year End Reserve Balances – Operating and Capital (Cash-Funded CIP); Table 1B Summary – a bar graph entitled Revenue Requirement; Table 2 Revenue Requirement Projection; Table 3 – Projected Revenue Increases; Table 4 – Reserves. He specifically referred to the graph on Table 1B (Year End Reserve Balances) and noted that the models used for the targets in the graph are new to the District, which hasn't been managing its resources around this right now, and there is some room to adjust these numbers.

Mr. Richards said that what Mr. Farnkopf is suggesting is that the rate he showed you is directly related to *that level of accumulating* reserves. If your Board chooses to accumulate reserves slower taking a longer period of time, that could bring the rate *down* versus accelerating the accumulation.

President Johnson wanted to know how much reserves make you too attractive a target to the state. Mr. Farnkopf said that Prop 1A was supposed to be a protection against the state doing that.

Mr. Richards commented that the state can do it twice in 10 years and they can't do it the second time until they pay off the first one. He clarified for President Johnson that as large as these dollars seem to us in this room, this is not where the state is going to solve its budget problem. East Bay MUDD has \$200 million in the bank. Orange County sanitary probably has \$200-250 million in the bank. The state is looking at *billions*, not millions. Mr. Richards didn't think that us choosing to be conservative by having reserves is going to cause the state to look at us. But special districts, government doing business right and balancing our budgets and keeping reserves as a California unit is very attractive to the state. He doesn't think this changes that up or down; they're looking at us regardless.

In response to a question from President Johnson regarding CMSA indebtedness and reserves, Business Manager Martin-Miller explained that we have to pay a full year of debt within a 6-month period with the way CMSA bills the District. We have a huge 70% of their annual debt service due every July and the last 30% due every January. So this is a very *practical cash issue* directly related to the timing of the receipt of the property taxes. We get a smaller portion of property taxes in April and a larger portion of it in December. So we go *8 months with no additional cash in*. The summertime is also our construction season so we have large payments due to any contractors we hire during that period. That whole time is the largest outflow of cash we have in the District. Mr. Richards said it's 3 things. It's a long dry

spell. It's 2 quarterly payments to CMSA for operations. It's their biggest single bond payment, plus it's our capital construction season. So there's a 7-8 month window where we could be vulnerable if the state came after money, or it could be any number of different scenarios.

Ms. Martin-Miller clarified for President Johnson that part of the 8% Labor/Benefit Increases for current personnel listed on Table 1A is the wage increase that is for the contract. Another part of it is the increasing amount we have to fund CalPERS, i.e. the employer portion alone in increasing 2%. The contract also means that as we hire new employees, the employee portion will *not* be included so we won't have to pay that 8%.

Mr. Richards pointed out that this is a pivotal moment because your Board chose to cap the CalPERS contribution at 28-30%. Ms. Martin-Miller said we'll be at 26-27% within the next 12-24 months. Mr. Richards observed that the union contract was not only making second tier employees pay their own 8%, but by capping every employee—including himself—at 30%, they keep going up but the District stops having the obligation at 30%. He clarified for Director Guasco that he was not aware of *any other agency* in the county that is doing this, i.e. that has actually created a legitimate second tier that didn't *already* have one in place.

President Johnson had a question about the 8.1% shown as the Change in CMSA Charges (per EDU) for Treatment (not debt service) on Table 1A. She wondered if CMSA gave that figure to the consultants because CMSA's budget numbers for next year aren't out yet. Mr. Simonson said the 8.1% is a combination of 2 things. Yes, it's their budget, which has been increasing about 3.5% in the out-going years. It's also on a per EDU, and because we reduced EDUs for San Quentin, it changes that.

Director Meigs asked if this could be called an aggressive rate compared to the whole county. Mr. Farnkopf said you're seeing a lot of high rate increases. Mill Valley is an unusually high example. We've seen it in other communities. These are above average increases. He guessed he wouldn't want to color it by saying aggressive or ambitious, but they're higher than you would normally see in one year.

Director Guasco asked if you could say in the past couple of years, and it could go on for a while, that it's above what used to be the norm. He pointed out that there was not much movement upward and there wasn't much work being done below ground to fix all of the infrastructure. We're *all* under the gun to have to upgrade.

Mr. Farnkopf said that during this decade, the increases have been accelerating, and agencies that have been increasing their rates have been driven by regulations that have forced them to increase them even more. That's been the case in Sausalito. Director Guasco clarified that Mr. Farnkopf was really referring to Sausalito/Marin City Sanitary District and not the City of Sausalito.

Director Sullivan asked if there was any advantage in going up and staying flat as Mr. Farnkopf had proposed as opposed to going up over a 5-year period. Mr. Farnkopf said it certainly gives you the money. Director Sullivan added this it also gives you the shock sooner and the guns

come out sooner, too. He asked if the District was subject to any kind of reserve requirement. Mr. Farnkopf said he wasn't aware of any regulatory orders. Mr. Richards stated that the District has a regulatory order we're complying with and we've been exceeding it since it's initiation. We should anticipate some type of order regarding sun setting in the next 90 days.

Director Egger wanted to know if any districts were putting any of these large increases on the ballot and letting the local ratepayers vote on it. Mr. Farnkopf said that now and then you see that but it's pretty rare. Sometimes it's done in response to litigation. Director Egger asked if any other options were considered, like phasing it in over a few years and hiring 3 employees the first year, 3 more the next year and so on, such that the rates would gradually increase. Mr. Farnkopf said it wouldn't help a lot but what they looked at was bringing in 1 crew at a time in 2 pieces and a few other scenarios. He also noted that if you were to ramp things up, you'd be below the minimum for a longer period of time with that program. Do you want to cut back on that program and hold back on capital projects that have been approved? The system will not repair itself.

Director Meigs asked if other districts are ramping up their capital improvements. Mr. Farnkopf said that Mill Valley is actually preparing to do a very similar thing.

When the topic of reserves was discussed, Mr. Richards said that it's academically correct to say we have \$20 million in reserves, but it's not literally correct. They were artificial reserves because we had postponed a few capital projects because of the community, which asked us to change the schedule. It was money that would have been spent. But realistic reserves would have been \$7 million or \$8 million, which is \$5 million below their target.

Director Egger wanted to know what would happen to the number of pipes put in the ground if we continue our capital improvement spending as we have for the past 3 or 4 years and didn't raise any more dollars for it. Mr. Farnkopf said it would go down.

Mr. Richards pointed out that if CMSA in June proposed a capital bonding of \$50 million, which we have to pay 54% of, this would suddenly put the District \$27 million in debt over 30 years. He asked Mr. Farnkopf to explain what impact this would have on the numbers we were discussing. Mr. Farnkopf said that the potential for making an automatic adjustment of rates in the out years for CMSA charges would protect you from that. Of course, it would affect the ratepayer but it would insulate you from that.

Director Egger wanted to know if Mr. Farnkopf had talked to CMSA as an outside consultant, as opposed to a RVSD Board member, and asked about their thinking on their bonding and future charges so the District could plan. Mr. Farnkopf said he hadn't talked to them but he had their projections from what they charged in the past.

Director Guasco remarked that we ask CMSA on a regular basis and they don't tell us too much. President Johnson said she remembers 3 prices that were on a list of at least 40 projects: \$31 million for the blending; \$14 million for the Class A bio-solid facility; and \$9 million for odor control. In addition, the remodeling of their admin building has grown to 5 times the original estimate, and they haven't even started with the maintenance thing. Director Guasco

commented that the \$31 million blending project is in anticipation of major flows and NPDES permitting changes.

Mr. Richards said the District pays 54% of all this, and 3 of those 40 projects, at a minimum, are on the fast track. That's why we have the pass-through function build into the model. Director Sullivan agreed. Director Egger said he would like to see a ballot measure and have the ratepayers vote on whether or not they'd like to see these improvements at CMSA. Director Guasco agreed with putting this on the ballot after the pass-through is established. Mr. Richards noted that what CMSA does and consideration of this type of ballot measure are things to be decided in the future. However, he did note that the District's rates doubled 4 years ago primarily due to CMSA. But right now we're talking about a proposal for what this 100-year old District needs, a District with 80% of its pipes at the end of their useful life.

Ms. Martin-Miller clarified for President Johnson that we came close to not meeting our obligations a few years ago because our reserves were inadequate. Mr. Richards said that the year before he was hired, the District had to borrow money to get to December. Then 2 or 3 months after he took over, he showed the Board a projection that in about 20 months the District would have no money if we didn't move some things around. He started telling the Board *then* that you would have to do a rate increase regardless, and that our capital program was not fully funded as advertised.

President Johnson said she was troubled by the increase in reserves. She understands how you would feel safer having them, but we're basically charging money to the ratepayers to put into a bank account, versus money for staffing or the projects that would create a *result* for the ratepayers.

Referencing Table 1B (Year End Reserve Balances), Mr. Richards asked if the consultants had played around with slower or lower reserve accumulations and what effect that would have on the rates. For example, if the reserves are cut in half and if we decided to take twice as long to get to half, what does that do to the rate? Let's go to the extremes, like 10 years out instead of 3 years out, so we can have a band of data to think about. Mr. Simonson said that in each of the models in the 4 quadrants that we showed you, the overriding target was meeting the minimum balance in this forthcoming year in 2012. That's what all of the rate increases we showed you get you. So you would only see *decreases* in the outer years by flattening this line.

Mr. Richards clarified what Mr. Simonson said and explained that to get to the minimum balance (the red line on the graph), the rates you've proposed are necessary for one year to slow down the future growth of the reserves with rate increase (the green line on the graph), and future rates would actually decrease. So we would tell the ratepayers we're going up to \$904 and then we're coming down to \$875, \$860, \$850 to lower that reserve projection. President Johnson said she wouldn't like to lower rates in the future. It doesn't make sense.

Mr. Farnkopf said he doesn't know what the fluctuation in the District's checking account is, but you could look at that and see how much it varies. President Johnson observed that what we've just been talking about in terms of reserves doesn't allow for any unanticipated emergencies.

No, replied Mr. Farnkopf, this is not gilding the lily. This is not self-assuring. *No grand jury* can build a case against you for stockpiling ratepayer money.

Director Sullivan left the room at 7:54 p.m.

Mr. Richards referenced Mr. Farnkopf's description of San Rafael's experience with reserves and clarified that San Rafael tripled their reserves because of that one-year experience with a recent unanticipated spill. And proportionately percentage wise, and even though we're talking about more *millions* because we're a large organization, percentage wise this is apples to apples. This was their savings rate and they got crippled in one year and so they tripled their reserves. So it shocked them enough to say, We are changing our saving philosophy. Mr. Farnkopf agreed with this assessment.

President Johnson said that when Mr. Richards was making his presentation he mentioned the potential for unforeseen pipe failures that we could have a year from now and we could not say to the ratepayers by any stretch or any means, Oh, I'm sorry. We don't have the money to fix it.

Mr. Richards said that Ms. Martin-Miller just brought the following excellent point to his attention. The reason the green dot on the green line representing our savings projection is *not* at our minimum savings projection is because we had an exceptional and *unplanned* capital expenditure this year. It affected it visually to the point where you can almost count by 5%, at least, to our reserve budget. And that was a one time capital event in December 2010 that was unplanned. Mr. Richards said we will probably have some settlements payments. He clarified for President Johnson that we will absolutely not be budgeting anything from JMB.

Ms. Martin-Miller referenced Mr. Richards' presentation where he talked about 2 miles a year versus 4 miles a year and the catastrophic failure phase, and noted that the closer we allow ourselves to get to that, the more likely we need those reserves to not be at this level, but even higher because we will have to fund repairs and replacements of things unexpectedly. So you can choose to increase reserves and *not* replace pipe at that rate, or you can conservatively look at reserves at *these* recommended rates and increase pipe replacement trying to alleviate our march toward catastrophic failure.

Mr. Richards clarified for Director Egger that there was no federal money available for pipe replacement. Director Guasco remarked that there is a state revolving fund for water and wastewater. Sausalito has been in the queue for \$23 million of this fund for 10 years.

Mr. Richards pointed out that none of these projections, his presentation, and none of the dollar figures we're discussing take into account any replacement costs for the Sir Francis Drake force main, which is coming. That's a 24-year old big pipe that carries very near 100% of the District's flow to CMSA. That will be a \$50 million project. It's 20 years away but 20 years isn't that far. This plan in front of you is one fourth of that. He clarified for Director Egger that after this plan, the Ross Valley Board should begin either a savings plan or a bonding program to start saving over the next 10 years or whatever for the eventual replacement of that force main, which is going to be terribly expensive.

Mr. Richards explained to President Johnson that the District operates off a real budget so we would spend \$1.2 million for CIPP. But if the economy stays static or if it improves and inflation bounces back, you should assume that that \$1.2 million will buy you less pipe over time.

In response to a question from President Johnson about the next step. Mr. Richards said staff will be bringing this to the Board at a May meeting, the first of the ordinance readings, with an almost identical presentation.

Director Sullivan returned at 8:04 p.m.

The Prop 218 notice will go out and your Board will make a decision. We'll be getting feedback from the public. He was sure the *Marin IJ* will chime in. We'll probably hear from community members and other people. Mr. Richards will talk with Dan Schwartz and other city managers he's working with. Then we'll have an official protest hearing. He clarified for Director Sullivan that the specific numbers are really finalized the last time the Board votes because we have to give the public a 45-day notice. We can put numbers out, but the Board can choose to lower them if you like.

Staff tries not to think in terms of politics; we try to think in terms of sewer maintenance because that's why you hired us and that's what we do. We're sensitive to that, we have to acknowledge that, and then the Board has to make the decision you have to make. We're telling you that you have an imminent catastrophic event, and that for probably since the 1960s until your Board made some tough decisions in 2006-2007, boards did what SD No. 5 did when they lowered their reserves and put off Paradise Cove or Paradise Bay or whatever. Then it failed and they almost ran out of money and they change their savings. He is telling the Board what the ratepayers need for this District to be in front of the problem going forward so the *next* boards have a manageable district. Unfortunately, 40 years ago the board didn't do that for you.

Mr. Richards clarified for Director Egger that the 2005 spill was absolutely catastrophic, and the December 2010-2011 event was not a catastrophic failure. It was a combination of vandalism and negligence but it was still a catastrophic event. But in terms of aging pipe, it was not a catastrophic failure. The 2 hillside slides that Director of Operations Clark has been on in about the last 2 months would be catastrophic failures. And there's *always* liability issues. If your utility is on a hill, they will *always* blame you.

In response to questions from Board members, Mr. Richards and Ms. Martin-Miller explained the timeline and steps involved in the Prop 218 process.

There was no public comment.

Director Guasco thanked Mr. Farnkopf for his presentation and said that both Mr. Richards and Wren Communications were doing a great job. We need to get out in front of everything that's coming at us and not tap dance around it. President Johnson said we need to take care of the business we're supposed to be taking care of as District Board members.

This Study Session was for discussion purposes only and the Board took no action.

**Item #4-CONSENT CALENDAR** The Board reviewed the Consent Calendar:

- a) Approve the Special Meeting Minutes of May 9, 2011
- b) Approve the Regular Meeting Minutes of May 18, 2011
- c) Accept Interim Financial Statements
- d) Approve Progress Billing No. 13 for CIP No.1: Kentfield Force Main Replacement Project- Segment 1A
- e) Grant Final Approval For Public Sewer Extension (PSX) No. 394 114 Stetson Avenue, Kentfield

Director Meigs requested that Item 4c be pulled from the Consent Calendar.

M/S Guasco/Egger to approve Items 4a, 4b, 4d and 4e of the Consent Calendar. The motion carried unanimously.

Director Meigs referenced the uniform services on lines 15 to 43 on page 1 of 9 of the Check Register and wanted to know the cost comparison to last month and the month prior, and if this was an average cost for 1 month. President Johnson noted that those numbers are in Board packets from prior months, and the far right-hand column labeled Description indicated that these costs were for more than 1 month. General Manager Richards clarified that these costs were for 7 weeks—part of May and most of June.

Director Meigs referenced the Fixed Assets Purchased on line 129 on page 3 of 9 of the Check Register and asked if all of the vehicles were purchased yet. Mr. Richards said line 129 represents vehicles that were approved with *last* year's budget and are currently purchased.

M/S Sullivan/Egger to approve Item 4c of the Consent Calendar. The motion carried unanimously.

**Item #5-CONSIDERATION OF ADOPTING RESOLUTION NO. 11-1412 ACCEPTING GRANT DEED OF EASEMENT FOR 114 STETSON CERTIFICATE OF ACCEPTANCE**

General Manager Richards said this was housekeeping and staff recommended approval of the easement.

After a short discussion, M/S Guasco/Sullivan to adopt Resolution No. 11-1412 Accepting Grant Deed Of Easement For 114 Stetson Certificate Of Acceptance. Roll call vote: Ayes: Egger, Guasco, Johnson, Meigs, Sullivan; Noes: None; Absent: None; Abstain: None. The motion carried unanimously.

**Item #6-CONSIDERATION OF ADOPTING RESOLUTION NO. 11-1411 APPROVING FINAL ACCEPTANCE OF THE FISCAL YEAR 2011-12 BUDGET**

General Manager Richards reviewed the staff report and said this budget contains the adjustments and the recalculations the Board requested, and it would equal an annual sewer rate for Ross Valley residents of \$638.00. Staff recommended approval.

President Johnson put this in context by saying that the original amount we presented at the April 7 *first* rate hearing—and this was the *eighth* meeting where we've discussed rates and budgets when only 1 was legally mandated—was \$904.00. We've now gotten that number down to \$638.00, which was *identical* to what San Rafael Sanitation pays. It's a decrease of over \$6.7 million in spending for the year and a *substantial* reduction from what was originally proposed.

Director Meigs referenced Legislative Consulting on line 27 on page 15 of the budget and wanted to know if that was legal fees or lobbyist fees. Mr. Richards said it was the second.

Director Meigs referenced Engineering/Studies (Includes Flow-Based Rate Study) on line 17 on page 16 of the budget and wanted to know how staff came to the \$170,000.00 figure. Mr. Richards said it's for the flow-based study and it's part guesstimate. We have to do an RFP with solicitations from firms that are qualified to do the flow-based rate. We need to have the money to do it. That's what the people wanted and that's what the Board directed staff to do. He clarified that this will be a rough estimate until we get responses to the RFP. Then we'll have a maximum bid amount and the Board can approve it or not.

Director Meigs referenced the fees for Consulting & Training on line 20 on page 16 of the budget and noted that they've gone up substantially to \$75,000.00. She knew it included the strategic business plan and wanted to know if that was all it was all for. Mr. Richards replied in the affirmative.

Director Meigs referenced the \$842,000.00 for Outside Services on line 14 on page 17 of the budget and said she wasn't clear on what that was. Mr. Richards said that it was for legal counsel, public outreach, IT services that we hire out, and so forth.

Director Meigs referenced Overtime Expenses on line 2 on page 18 of the budget and wanted to know if this was the total cost, and if it included union employees, as well as administrative staff. Mr. Richards said that most administrative staff doesn't get overtime, with a couple of exceptions. We're on fixed salaries so it's primarily union.

Director Meigs referenced Temporary Help on line 16 on page 18 of the budget and said she thought that at the last meeting, the Board had directed staff that temporary help would be pulled off the budget. She wanted to know if this \$15,000.00 was part of that or something different. Mr. Richards said that staff removed the extra help that was recommended. For example, though, the person taking minutes down here was extra help and at this point we need to retain that service. He clarified that temporary help originally was actually \$48,000.00, not \$24,000.00. Then it was cut to \$24,000.00 and then the Board eliminated all other services at the last budget meeting, and now it's down to \$15,000.00.

Director Meigs referenced the \$203,000.00 for Community Outreach on line 26 on page 18 of the budget and noted that our fees have *doubled* and she doesn't know why. Mr. Richards referred back to the Legislative Consulting line item that Director Meigs asked about earlier and called lobbyist fees. He said that *that's* the itemized of this line item. President Johnson clarified that there's a breakdown of what the \$203,000.00 represented on page 15.

Mr. Richards further clarified that Community Outreach included the services of Mr. Wren. Director Meigs wanted to know if Mr. Wren's position was budgeted or bidded out each year for a different agency or how it was done. Not every year, replied Mr. Richards. It was bid at the time he was selected.

Director Meigs referenced Vehicle – Repair & Maintenance on line 71 on page 18 of the budget, noted that it doubled to \$93,000.00 and wondered why. President Johnson pointed out that the actual for this past year was \$98,000.00 and they're estimating \$93,000.00 for next year. Director Meigs noted that we just spent \$130,000.00 for new vehicles and wondered why we have so much money for vehicle repairs. Mr. Richards said we have a *fleet* of vehicles and we're not nearly replacing all of them. We keep them for 8 to 10 years and maintenance goes up very year. He clarified that *all* of the vehicles need repair, except for the new ones.

Director Meigs asked if we've considered looking at doing solar for our PG&E costs, which have gone up to \$209,00.00. Mr. Richards said we've talked about it. The start-up cost was pretty expensive. The long-term was good but there would be an initial outlay that would be pretty large.

Director Egger said that his concern—and he's not speaking specifically to this budget—was how our ratepayers and constituents were looking at us and questioning the operation here. He thought it was time for us to take a step back, take a deep breath and spend this next year maintaining our status quo operation. We're going to be looking at a flow-based rate study. He would much rather keep our rates fairly close to what they are and then bring this flow-based rate study back to the public in the spring of next year. He recommended postponing some of the major capital projects. Director Egger also believed the developer should pay the full cost of moving that sewer line on the Niven property. On the lateral grant program we could postpone the entire half a million dollars for 1 year. When you look at the letters that were coming in, it's obvious that folks either don't understand our operation or were *confused* by us in what we're doing. He would like to see us spend this next year rebuilding public confidence in this District, which has done *so much* for its community in the past few years.

Regarding the anticipated litigation on line 57 on page 18 of the budget, Director Egger would cut the \$364,000.00 in half. He would also eliminate the \$66,000.00 for the political consultant in Sacramento. We're already paying a lot of money for communications and public outreach, and this wasn't the time to add another person in Sacramento. He pointed out the increase in Training – Education & Certification on line 8 on page 21 of the budget. President Johnson noted that it was a difference of \$92.00. Director Guasco pointed out that training and certification is required by the state to make sure our employees get certified. Director Egger said he was referring to Board members, whom he thought could perhaps take a holiday for a year from attending some conferences.

Director Egger referenced the increase to \$489,000.00 in the cost of Insurance – Health on line 9 on page 24 of the budget and wanted to know what caused the increase, other than the additional employees that have been added. Mr. Richards said it was exactly what Director Egger identified; plus the premiums were adjusted annually and we've seen them going up every year for at least a decade.

Director Egger acknowledged that at the last meeting the Board postponed and cut some items, but he would go even further. He would take out the additional \$250,000.00 for the lateral grant program for this year only and postpone our strategic plan for \$60,000.00 for 1 year. He knows that staff believes a lot of these proposals are necessary and they probably are. But it's time to step back, take a close look, and get the community involved with us and

let *them* help us make some decisions about what projects we need to go forward with and what projects we need to hold off for a year.

Director Egger noted that the 2 projects in Larkspur, the Niven and the Rose Garden project, started well before he came on board. His concern was what the impact of sea level rise will be on those projects that he knows have to be in the 100-year flood plain. He doesn't know if our engineers were actually *looking* at sea level rise here and how it's going to impact our new pipes we're going to put in the ground. He's seen *nothing* that addresses that issue. He's just not comfortable voting to move those projects forward not knowing.

Director Guasco agreed with President Johnson that since the April meeting, we came up with \$6.7 million in spending cuts. And he's listening to Director Egger say postpone everything for a year and then come back and see if everybody in the public agrees that we should keep fixing things and paying for things or not paying for things. Director Guasco said he was getting tired of the comments about sea level. It's unfounded. The sea level coming up a foot and a half in the next 100 years or 300 years, or whatever it is, will not have an impact on what we're doing or the materials we're installing. It's probably 3, commented Director Egger. That's if it happens, said Director Guasco.

Director Guasco said he believed in the partnership where the contractor helps to pay for the cost of what's really rerouting our sewer system that's not in good shape and that we duly accepted from Larkspur in 1993. His concern was the overflows that occur in the area. He also noted that the rate reduction from where we were demonstrates a lot of work we've done at the Board level. He was not for gutting the budget and he *does* help pay the rates in this Ross Valley Sanitary District.

Director Guasco referenced something he read recently by a writer whose name he didn't remember. But they *spun* the discussion about our concern about repairing pipe as kind of being an insult to the public and the community. It made it seem as though the public and the community didn't *know* about it or support it. Director Guasco frankly thinks the public still wants to repair pipe and pumps and force mains and all that. But what he thinks he hears is that the public wants us to go back to where we *were* when rates were kept at \$520.00. For him, that's not very realistic for the public to be able to continue upgrading and repairing a system that gets older every day and was just about one of the oldest in the *state*.

Director Guasco referenced discussions from certain groups that speak on behalf of the contractors in the county, and noted that there will still be plenty of work for them while we do our bursting and pipeline replacements as we move into the future. We're going to be giving people jobs and keeping a lot of those jobs in our community. He disputed some of the numbers brought before the Board regarding lineal foot costs for replacement of pipe. There's some spin out there, and *a lot* of politicians now, who are lawyers, have a lot to say. He concluded by saying he wants to see the District advance forward, replace pipes and pumps, and protect the environment and the public's health at the most reasonable cost we can come up with.

Director Sullivan said he was really torn. This was a really difficult issue and it brings to question why citizens would sit on a board like this and why anyone would go through this process. It's been *excruciating* getting letters complaining about rates and hardship, and being lambasted in the newspaper every day. It questions why the people in the Ross Valley want to have a sewer district. Why don't we just turn it over to Sacramento, or the Board of

Supervisors or something like that, to run? But if we do believe that we the people of Ross Valley do want to run our own sewer district, then these kinds of meetings were crucial but painful. This budget that we *proposed* was a compromise in that initially we were thinking we would try and correct the long-standing disaster that's sitting below ground. Our 200 miles of pipes need to be fixed at a much faster rate. And it's *crystal clear* from the response that everybody wants the pipes and pumps fixed but nobody wants to pay for it. So we're clearly not going to be able to do what we originally proposed in terms of 5 or 6 miles of pipe a year in replacement, plus all of the other stuff of maintaining the District. So instead of having a 4 or 5 year process, what we recommended was a 1 year process, straighten things out in terms of San Quentin and the costs that are consistent with that, and straighten things out in terms of the Ad Valorum tax with Larkspur, and that was an incredibly complex issue.

Director Sullivan noted that he was recently talking with an attorney and it took them 10 to 15 minutes just to understand the implications of the Ad Valorum tax on Larkspur versus the rest of Ross Valley. He was also talking with his neighbors in Larkspur and they *did not understand* what the difference was on that Ad Valorum tax and how complicated that was and where it came from and what Proposition 13 and Proposition 8 had to do with it. He then pointed out that our requirement was that we be fair. That's one of the things that's written into the law. And that fairness means we take from Larkspur, the way the District was given to us 20 years ago with the separate and *higher* rate because Larkspur keeps the Ad Valorum tax, and that we adjust that Ad Valorum tax *every year*—supposedly every year based on what the county says the tax should be. We haven't done that. It's really complicated. That's one of the things in the proposal this year and it's going to be very hard to explain to people what that Ad Valorum tax is.

Director Sullivan said he thinks that the budget we're passing meets some of the obligations in the Consent Decree, i.e. we're required to put 2 miles of pipe in, build a reserve, test the creek and do a lot of different things. He thinks we'll be able to put 2 miles of pipe in, but this budget does not build a reserve so we'll be in violation of the Consent Decree for that. And this budget does nothing to protect us from any fine that was associated with the spill last December whether it was our responsibility or not. So he's torn between wanting to charge *less* (because everybody's more comfortable with lower taxes) and his responsibility (He was elected to do this job; it's not a fun job.) to make sure that the District was properly funded so we can do what we need to do.

Director Sullivan commented that there was an article in the *Marin IJ* about having an actual vote, not a Prop 218 vote, and he actually called for that at one of our earlier meetings because he does think the people of Ross Valley need to decide whether we're going to fix the pipes at 5 or 6 miles a year or not. And that's a very expensive process—another \$10 million a year. He also thinks we should vote on how much money we send to CMSA and the plant they're building and how much the water district is going to charge us. Those were things that we as citizens would all be delighted to vote on and it doesn't happen.

Director Meigs thanked everyone who was here tonight. It's important to her that you show up and voice your concerns. She also thanked staff because they came up with some creative ideas on furloughs that she was very impressed with, and she appreciates that. She had asked a couple of months ago about reducing staff in some ways and she knows it's difficult with unions. She noted that at the last meeting she asked that the budget be cut by \$2-3 million. At this point we've cut it to about \$1.5 million and that should meet our shortfall, which should be happening at San Quentin because in the change in concentration levels.

Her job was to carefully monitor your money and she's personally not ready to vote on this budget. Director Meigs thinks it can still be cut in various areas as Director Egger talked about. She's already looked at \$500,000.00 and if we really tweaked it, we could probably get up to another million. She pointed out that we did almost 5 miles last year of CIP projects and understands that in the year prior we didn't do much at all. So she wondered if we did hold off, as Director Egger was talking, and just put a hold on the budget and *not* increase the rates, and let us decide on the flow-based rates because that will change everything.

Director Meigs concluded by saying there were other creative ways to look at this after what staff came up with. Maybe when there's down time, employees can be on call. This was what happens generally in hospitals. There's not enough work; people want to go home and be with their families. Some can and some can't. We just need more time to look at this carefully.

Director Guasco said he submitted something this morning to the *Marin IJ* as an opinion piece as a resident of Ross Valley and hopes they would print it. He read it into the record:

*The IJ's position that an election is needed to increase sewer rates needs an unbiased analysis starting with the facts. The protest hearing was attended by about 100 of the District's over 15,000 ratepayers. The number of written protests received was 4,852 or 31% of the community. While the typical Proposition 218 public hearing process is clearly not an ideal method for allowing ratepayers to protest a rate increase, this Proposition 218 process could not have been much easier for ratepayers. Instead of having to write a letter stating opposition to the plan, 2 postcards were sent to property owners by private citizens who opposed the rate increase. The mailings came with a pre-addressed card, postage paid on the second mailing, that allowed people to simply sign and drop the card in the mailbox. This process was easier than going to the polls on Election Day.*

*What wasn't fair to ratepayers was the fact that critics launched a powerful misinformation campaign to discredit the District in an attempt to influence their decision. Despite the misinformation, 69% of ratepayers decided not to support the critics. The IJ should consider that perhaps the majority of ratepayers understand that a \$118 increase for most residents to maintain vital sewer services is reasonable, and that Larkspur residents should pay the same amount as other ratepayers. Just maybe they understand that the District is doing great work and want it to continue. Thank you. Pat Guasco.*

President Johnson noted a few points that a couple of Board members have chosen to ignore. We have cut the budget by a third since it was first presented to the public. She thought we deserved the same applause the public gave to them for that. Kudos to us for doing that. She's hearing in the news recently that Fairfax and San Anselmo are putting a sales tax increase for their towns on the ballot. San Anselmo just had a garbage rate increase of 31%. She asked if the San Anselmo residents in the audience were at the San Anselmo town hall protesting that. We're suggesting a rate that was equivalent to what San Rafael residents have been paying for years, and we're just getting *up* to that level. Our rates have been the 8<sup>th</sup> out of the 11 districts in the county in terms of highness of rate. So there's undue attention being focused on our agency while not on other agencies that are doing just as high taxation measures. To her there's a hypocrisy going on among the politicians that were trying to focus the attention on us.

President Johnson emphasized that we were *mandated by state law* to replace the sewers

and keep them in good condition. Unlike city streets that aren't replaced, nothing happens to the town. If we fail to replace the sewer pipe that we know is in bad condition, we are subject to heavy fines by the EPA. And where do those fines come from? They come out of your pockets. It would be additional money we would have to charge the ratepayers that gets you nothing. We're also operating under the Consent Decree, which was a very strict edict of about 20 to 25 requirements we must comply with, including doing community outreach, having a website (which other districts don't even have), putting in 2 miles of pipe a year, and doing 4 miles of Closed Circuit Television of pipes each year. This was not stuff we can just decide not to do because we don't feel we want to pay for it.

President Johnson agreed with what Director Sullivan said about the Board having worked incredibly hard and this being an excruciating job. We've had 8 meetings now—way above and beyond what any other agency considering these same types of issues would have. We have cut almost \$7 million from the spending. And to hear that we should cut even more! She pointed out that in the current round of cuts, administrative staff was to go on furloughs 2 days a month. And they put that in the budget themselves! It's a humungous thing! She didn't think there's any other jurisdiction in Marin County where anybody goes on a furlough. We're leading the way on that.

President Johnson said the cuts have gotten down to the level where if we go any lower, we might not be meeting our mandate and the public will end up paying fines. Because of the extreme cuts we've made now to date due to hearing from the public to cut and not replace pipe and not to replace pipe at any kind of accelerated level, she wanted the public to remember that if the District was subject to fines in the future, you chose not to want to replace pipe. Her feeling was that at that point in the future where the District might be fined, that conversation will be out of sight, out of mind, and the District will get the blame for that, too.

In conclusion, President Johnson said we're under incredible pressures to respect the constituency input, which she does, and follow the mandates from the state and the Consent Decree. The balance between these 2 is a fierce battle and she thinks we've come to a very rational place of \$638.00, where we started at \$904.00. This was a huge accomplishment! She hopes the audience appreciates the hard work it took to get there, including the sacrifices of the staff now and into the future. She thought the staff deserved a round of applause.

Cathryn Hilliard, Executive Director of the Construction Industry Force Account Council (CIFAC), thanked President Johnson, all Board members and staff for the countless hours they put in and said it was appreciated. Ms. Hilliard's issue was the assumptions that went into the budget and how you do the pipebursting. (She gave a handout to Board members.) She applauded the idea that you need to do these things. The question is the way you do it. According to CIFAC and the Public Contract Code (PCC), your thinking outside the box in order to hire people and do pipebursting at a lower cost could get you into deep trouble with us. Section 20893 of the PCC says that as a sanitary district, any expenditure above \$15,000.00 has to go to competitive bid.

In addition, the Health and Safety Code Section 6400 et seq. defines new construction as construction, reconstruction, alteration, enlargement, renewal or replacement. Your pipe replacement projects are not maintenance, even though she understands the District is under a court order. They are construction. You confirm them as new construction projects in your

documents by naming them as Capital Improvement Projects.

The data you presented did not compare the cost of pipebursting in-house versus the cost of pipebursting with a contractor. But instead, you compared open trench excavating pipe replacement with pipebursting, and you need to do the comparison of apples to apples. If a contractor does the work, the contractor absorbs the liability for the project, not the District, which should be very appealing to the Board. If you proceed by hiring or using your own forces, then any perceived savings that you may have could be eaten up in a court of law. Thank you so much.

President Johnson said that District Counsel was looking into that as a result of the information Ms. Hilliard provided at a prior meeting. Page 3 of the updated version of the budget has a chart showing a comparison of the pipebursting costs to pipebursting with a contractor.

District Counsel Houston encouraged Ms. Hilliard to send her a legal analysis on this. This would be welcome because at this point Ms. Houston was not interpreting the code sections the way Ms. Hilliard was. If CIFAC has counsel that could send something, Ms. Houston would be glad to review it. Ms. Hilliard said that it certainly would be our counsel to you.

Director Meigs referenced the comparison on page 3 of the budget and said she was told by Business Manager Martin-Miller that it was not a comparison to outsourcing. President Johnson said Director Meigs might have misunderstood because it clearly says that at the top of page 3.

Paul Davis, 944 Sir Francis Drake, said that District staff is the highest paid of all the districts here in Marin County. He saw no reason to pay a district manager with a compensation package in excess of \$300,000.00 a year, and an engineer and an assistant engineer a package of about \$400,000.00 a year. Those 3 people alone were costing the District in the neighborhood of three quarters of a million dollars a year. You can get good talent for a lot less than that. Mr. Davis also believed the District didn't need to hire any more public employees; they're a bad investment. The best investment was to subcontract everything you can possibly do and they'll be responsible for any damages or mistakes they make.

Cathy Mazonni, Marin Builders Association, said the association served the construction industry, promoting high ethical and professional standards, and providing quality services to its members. We have serious concerns of the District's proposal to hire additional in-house pipebursting crew members in lieu of putting people to work. According to staff, the cost analysis compared the cost of contracting out pipe replacement, pipebursting, manholes and laterals with the in-house costs of pipebursting, manholes and laterals. In our opinion, the cost analysis was incomplete and not a true comparison. There were more than a dozen contractors in the area who do pipebursting. Why wasn't their knowledge and expertise used in this cost analysis? Ms. Mazonni looked at 3 different pipebursting projects in the area that were bid by 8 local contractors who specialize in pipebursting. The average bid on all 3 projects was \$578,000.00 per mile. That's a \$272,000.00 per mile less than what the district claims it would cost to do it in-house. It was irresponsible for the Board to hire an in-house pipebursting crew with the incorrect cost analysis data. The Marin Builders Association urged the Board to reject the hiring of any additional pipebursting crew members, and contract with qualified local contractors. We hope when issues arise in the future that affect the community and the construction industry, that you will utilize our knowledge and resources. Thank you.

Allan Berland, a private attorney from Larkspur who does not represent the construction industry, spoke as a ratepayer. And quite aside from the mandate of the code, which arguable requires the District to put these things out to bid, he thought it was a violation of your fiduciary obligations to impose a substantial increase to replace the pipe in-house. This was a way to expand the business of the District, the staff by 30-40%, in order to go into a new business, i.e. the pipebursting business. This reminded him of the Golden Gate Bridge District. They knew their bonds would be paid off in the '80s and then they wouldn't have anything to do except to simply maintain the bridge. So they got into the naval business and bought a fleet of ferryboats and buses. And we all know what happened. The Board needs to get some hard costs for bids to do this pipebursting outside of the District staff. We all know what happens when you have staff with overtime and pensions and potential liability. It's incumbent on the directors to get compelling evidence rather than just a supposition or a study from a few months ago about what it would cost. Absent that, the directors were violating their fiduciary obligations to the ratepayers. Mr. Berland fervently hoped the Board will seriously consider not going forward with this proposal and take Directors Egger and Meigs suggestion and hold still for a year until this can be more adequately explored. Thank you.

Louise Mathews, San Anselmo, said she also has high confidence in Board members Egger and Meigs for a number of reasons. One of them is the staff report in Item 6, which she paraphrased: The reduction in personnel expenses of \$193,485 through furloughs is not a sustainable solution as furloughs may not be carried out indefinitely. Ms. Mathews said that goes directly to what was going to happen to the budget in the future and how can we have confidence in this budget application for the future when 1) you were not going to be able to provide any certainty regarding furloughs and the cost savings, and 2) you were not going to be able, at this point, to give us any understanding of a flow-based system and the impact that was going to be having on the District as a whole and us as ratepayers. These were critical issues that come to the Board in any development of a budget. When she saw the discussion and the resolution of what was going to happen with this budget come before the approval of the amount for the rate increase, she wondered because that leaves the Board completely tied in finding a way to approve a reduction of the minimum, which was \$634.00. We would love for you to stay at \$520.00 to maintain where you are right now because you are troubled. You are scared. You are paranoid and she is so sorry about that. And you did not represent this District at the April 11 meeting at CMSA. *You did not do your job!* Ms. Mathews didn't care how many meetings you've held. You have consistently drawn yourselves back and thrown out your claws as though you were being attacked. Ms. Mathews said she was not attacking you. She was chiding you for not being her representative and being equitable in your decision both from an agency perspective and a ratepayer and community perspective. You do have to deal with the courts. You do have to deal with state mandates. Grow up! Do it! And don't come nagging to us with a terrible furloughs and budgets that have absolutely a scarcity of trust in yourselves.

Ford Greene, San Anselmo, San Anselmo Town Council, speaking for himself as a ratepayer, said that you guys have made a big issue about laterals and about replacing pipe and getting pipe in the ground. That stuff was great and we want that! And we support that! Where the rub comes was when he hears the discussion couched as community outreach to the tune of a quarter million dollars a year, or a lobbyist by whatever other euphemism you care to characterize that function, that person, at \$66,000.00 a year, or for a strategic plan at \$60,000.00 or lawyers at \$364,000.00 a year. What in God's name does that have to do with

getting pipe in the ground?

Mr. Greene said that Chairman Johnson beseeched the crowd. Why don't you give us applause? he asked. Why don't you give *Egger and Meigs* applause? Why don't you give the *staff* applause? They've come up with some innovative cost savings. The reason that you don't get the applause was because he didn't think you're paying attention to what the people care about. People don't care about paying \$84,000.00 a year for *The Pipeline* or public relations where instead of getting straight talk we get condescension. And we have to read about it in terms couched as your District when our money, that we see being mismanaged and misspent, profligately and wasted on stuff that makes you guys look like big shots, but doesn't do anything for us and doesn't get more pipe in the ground. He didn't know what lobbyists have to do with getting pipe in the ground. He didn't know what lawyers have to do with getting pipe in the ground. He didn't know what public relations have to do with getting pipe in the ground. If you pay more attention to putting your money where your mouth is and really getting pipe in the ground instead of spending a whole boatload of dough on stuff that to the general public person seems completely unnecessary, and dare he say narcissistic and self-absorbed, you would get a lot more applause. He suggested that the Board not pass this budget.

James Hall, Larkspur, said he appreciated the dilemma the Board faced and your problem with pipes and putting pipes in Larkspur. You inherited something really interesting there that goes way back to the '20s and '30s and '40s. But his concern was the amount of money being spent on salaries in this budget and the next couple of budgets to come. In his opinion, it was vastly inflated at 23% for the next few years, unprecedented and unparalleled. Furloughs were just a drop in the bucket compared to this huge amount, which borders on being a handout. That doesn't have *anything* to do with fixing pipes. You have been told to fix pipes but nobody told the Board you had to make these huge employee handouts. That's what makes him wonder about the Board's processes and judgment that he otherwise wants to understand and appreciate. He felt this budget was fatally flawed due to the enormously inflated compensation costs figured into it and successive budgets for the next couple years. Thank you.

Barbara Thorton, a San Anselmo resident and San Anselmo Town Council, said she's been following this but hasn't been able to come to your meetings. She supports that the District has a large investment in capital assets that they have to maintain and continue to upgrade. She thought that's what the people want. They *understand* the importance of our sewer pipes and keeping those in good condition. She also appreciated the work that's been done on the budget because she knows how hard that can be. In these days, budgets for public agencies were very, very difficult and do take a lot of work. Her concern lies in many of the expenditures and how high they are and how out of step they are with other public agencies and how they are setting precedent for going forward. She highlighted the area of labor. The salaries seem to be very high. She knows there was a 6-year contract signed last year for 24% increases, which was on average 4% per year for the next 6 years, while other public agencies were taking salary away from their employees. Legal expenses have been extremely high, multiple times higher than they should be. And there's the \$4.5 million that the settlement of the court case cost us and the public relations expenses. She didn't even want to *read* the newsletter because it's a PR piece. What she wanted was the information, the truth, on your website and your taking a look at what your main objective, which was to take care of the pipes that are in the ground and keep the sewer out of our waterways and

out of the streets. Regarding the legislative person you recently hired, you can participate in legislative type actions with sewer agency associations and *share* the costs and not have your own legislator up there. She looked at the \$46,000.00 or \$36,000.00 for Board expenses a year. That's a huge amount of expenses for a board; she's not sure what that's make up of. You have someone separate here taking minutes. You have staff. Why can't staff take the minutes? We're already incurring that cost. She was also concerned that every time something happens that involves the District, it seems like you're not accepting responsibility for the things that are happening—for the sewer spills that happened last December. On the day that happened, Ms. Thorton met with Pam Meigs in the morning and she didn't even *know about it*, and it happened the night before. That was just unacceptable for a Board member and a board on an issue like this!

Gail Connelly, Larkspur, and President of the Marin Income Property Association, said we have been encouraging the use of a *flow rate* to charge, especially for apartments, smaller units, duplexes and units under 200-500 square feet. They're apparently going to be charged the same amount as the 5,000 square foot house. We would like to see that flow rate go into affect. With the 1-year delay that could happen, and you could have it in affect and you would know how much everything was going to be. Regarding the sewer spills, she knows that in other cases where capital has been needed to replace pipes, the spill monies, i.e. these fines, have often been returned to the community. She wondered if the Board had investigated that to find out if and *how much* of the money *will* come back. She hoped the Board will delay this and look carefully at these costs. Ms. Connelly thought what Ms. Thorton said was *excellent*.

Richard Halstead of the *Marin IJ* said he had to ask a question now because for several months now the staff, Mr. Richards, as well as Ms. Johnson, the President of the Board, have refused to answer or even speak to him on the phone on any basic question. President Johnson asked him if he would like to ask a question on the budget please. Mr. Halstead said he was just explaining why it's not his practice normally to ask basic questions during public meetings because he likes to try to do his reporting outside this venue. His question was this. Since January, the District's Board has authorized the hiring of 10 employees—an administrative assistant, an account manager, 3 employees to inspect pipes using cameras, and a 5-person pipebursting crew. He wondered if the Board had an estimate of the annual cost of these 10 new employees. Thank you.

President Johnson commented that all of the questions will be answered at the end of open time since now was not the time for Board members to speak.

Myra Drotman, Sleepy Hollow area of San Anselmo, thanked everybody on the Board. She realized you have a difficult job. She noted that what got the Board to cut the budget was the outrage, and without that you wouldn't have gotten down from close to \$1,000.00 to \$600.00 and something, which was about a 20-25% increase instead of almost a 90% increase. So that's where the outrage was coming from, and she's shocked that you're shocked about it. Part of the outrage was that Mr. Guasco was not mentioning any of the litigation and the loss of public confidence with all of that—with the real estate deals, the purchase of the new building, and the lawsuits. That has been a *tremendous* loss of public confidence. Everything she's reading about now is that the *next* recession and crisis is going to be based on the pension and benefit promises that are *impossible* to keep. She encourages the Board to be at the forefront of *changing* that and doing it sooner rather than later. We're totally *for* having a safe and environmentally sound sewer system; we're not for wasting our money, like the

\$2,000.00 for a booth at the back end of a fair that nobody comes to. She recently heard a San Anselmo council member say that they *suffer* over spending a few hundred dollars to put up holiday lights. But her main point right now was the rapid raise of flat rates. There's a social injustice happening right now. The Board has heard this but she didn't think they really got it. If the flat rates were *unfair*, then the *increase* in rates were a greater injustice. It's unfair to have a person living in a smaller unit who uses *less* pay the same amount as the larger family in a larger dwelling that uses more. Thank you very much.

Tim Berans, San Anselmo, noted that now the District was fixing 2 miles a year. It's his understanding that the current crew of 5 should be able to do 100 feet a day. And 100 feet a day, if you're working full time, comes out to about 4.5 miles per year. So he's not clear why we even needed a pipebursting crew.

Karen Palsey said she owns 2 properties in Larkspur so she gets to pay double. She appreciated all the time and effort that everybody puts in; being a Board member cannot be easy. But she found it *very* disappointing that 3 Board members were just not listening to the ratepayers. She wanted to echo what Ford Greene and some of the other speakers said more eloquently. The big issue was that we don't support the direction you want to go in. The ratepayers did *not* want to have the District hire their own staff and increase the staff. We are all for replacing pipe. We are not for litigation, like this lawsuit with Corte Madera. How much is it *costing* in management time? Why not settle it? From what we read in the paper, which may not be *true* but there's no other information, it sounds like the District told Corte Madera where to dig. You're fighting over \$255,000.00. You've probably incurred more legal fees than the settlement is ever going to cost. Why waste everybody's time with that? It's part of the budget. Please refrain from litigation as the primary goal and be honest about why we're here with a rate increase. It's because of all the litigation and all the settlements that there's no money left to replace the pipe. Ms. Palsey asked the Board *not* to approve this budget and go along the ways of Board members Egger and Meigs and defer this and talk about the *direction*, not the details of the budget. If you go in a different *direction*, ratepayers think you can cut costs a lot and put the liability on outside providers, not within the District. Thank you.

Rocky Dewyer, an apartment manager and resident of Corte Madera on Sir Francis Drake, said he's just your working kind of guy where you get out there and do it and get stuff done. The majority of America, whether they're more educated than him or not, the reality was what we do was how we do it. We do that with our hands. He's so thankful there's an educated public out here who has the time to look into the BS that you guys were creating while he's out there busting his butt for minimum wage just to survive. He didn't have any love or appreciation for any of this. All of this conversation—he's so appreciative they've taken the time to come up here when it's common nonsense! This was something a 5-year-old would look at and laugh. How are you trying to come up with these crazy numbers and make us chase the facts that are not even facts?! It's ridiculous. Thank you.

President Johnson pointed out that public outreach and community relations was *mandated* by a legal document, the Consent Decree. Unfortunately, we cannot eliminate that, even though you might want us to. She said there was an interesting article in the newspaper earlier this week saying that San Rafael actually had the highest paid employees in the county.

In addition, she had pages from a report put out by the mayor counsel person's joint committee on pension and health insurance funding and read some of the numbers in this

report. We do not have unfunded pension or health insurance liability like almost every municipality, including the county and other sanitary districts. Marin Municipal Water District has about \$400 million in unfunded pension liability. The county has \$364 million in unfunded liability. These were costs they incurred but they've just never included them in their budget. These numbers were astronomical for local agencies. There were also unfunded health care costs. Larkspur has \$7.5 million of unfunded health insurance costs; Mill Valley has \$20 million; San Rafael has \$46 million. So in light of this, the District was trying to operate in a fiscally prudent manner.

President Johnson said that the pipebursting numbers were not just based on estimates; they're based on our actual experience of using contractors and an in-house capital construction crew. We compared actual numbers we experienced, not numbers we got from quotes over the phone. In addition, we are doing a flow-based rate study and analysis, at the request of the public, and that's in the budget. She noted that going to a flow-based rate will move the cost from one group of ratepayers to another group of ratepayers. She felt that if we go to a flow-based rate next year, there will be a different group of ratepayers in here complaining that costs were shifted to them.

President Johnson said she believed we are paying attention to what the public wants, i.e. we've had 8 meetings instead of 1 because we wanted everybody to have a chance to comment. We have cut almost \$7 million from the budget as a result of this experiment and that's a *huge, huge* accomplishment. We also can't take direction from you that puts us in conflict with state law. We're trying to balance those 2 requirements and it's difficult.

Regarding the issue of fines being returned to the community, President Johnson said that in the past when this was done they're returned to *alternate* agencies, not the agency that paid the fine. So if we paid a fine, it wouldn't be returned to our agency for us to spend how we wanted to. It might go to Friends of Corte Madera Creek to do some creek clean-up project or something like that.

In response to Richard Halstead's question, President Johnson said that at the time there was a spreadsheet on the annual cost of the 10 new employees. She doesn't recall the total number off hand. Mr. Richards said that the total salaries were in the budget. He didn't have each salary memorized. President Johnson added that the information was in the January Board packet but we didn't have that split out because they were all across multiple departments. So we don't have them segregated as a special line item in this budget since it's from a prior—

Director Guasco suggested giving Mr. Halstead what he asked for so he can report out on it. All that Director Guasco asked was that he report the *facts*, the actual *facts*. President Johnson was sure that staff was capable of providing that number, and she noted that the January Board packet and the related staff report were on the website. Staff agreed to provide the information to Mr. Halstead.

Director Meigs wanted clarification about the pipebursting comparison to outsourcing and the pilot the District did. She said she had a conversation about the pilot with Business Manager Martin-Miller who told her it was too expensive for us to do a comparison or something like that. Director Meigs wanted to get really clear.

No, replied Mr. Richards. He clarified that the pipebursting figures were compared to *real* projects that the District had paid out to contractors through competitive bids. The average

was \$1.4 million per mile and we proposed the in-house crew at between \$800,000.00 and \$900,000.00 per year. That's fully loaded with equipment, benefits, everything. At this point, we're *beating* the numbers we proposed.

Director Meigs asked Mr. Richards to comment to the public on their figure, which was much lower, like \$500,000.00. Mr. Richard said we looked at some of those and it's just not an apples to apples comparison. We're replacing manholes and lower laterals. Several of those were strictly in easements with no paving or asphalt over them. One of them was a lateral every 92 or 95 feet. Our laterals were approximately every 30 to 35 feet. So we're doing almost 3 times the number of laterals plus manholes.

Director Meigs said she was thinking the lower fees were because of the current workforce and the underbidding that's going on right now because people do not have jobs. She clarified for Mr. Richards that from what she heard, contractors were going under their normal bidding because of the economy and they're not getting enough work. She referred to something said earlier by Ms. Mazzoni from the Marin Builders Association. Ms. Mazzoni said she had copies of that information for each Board member. President Johnson said she would love to see that information because she herself asked questions about that, and we wanted to look into these things ourselves to see if there was an apples to apples comparison since projects were very unique, depending on the geography. Ms. Mazzoni handed out hard copies of the information to each Board member.

In response to questions from Director Guasco, Mr. Richards said he hadn't seen the numbers on the handout distributed 5 seconds ago, but in looking at the projects staff was able to find, in a number of cases it appeared that it did not include engineering work, pre-design, and inspection work. Other than installation, Director Guasco listed many of the things that were included in the cost of the District's projects that needed to be included in the *total* cost of the comparison projects so we get closer to an apples to apples comparison. He noted that it was likely that the Builders Exchange would make sure the Board gets the numbers for all of these associated costs because the current information is incomplete and inconclusive.

Mr. Richards said we found a report that Nute Engineering did for Alto Sanitary District, if he's not mistaken, that reviewed about 10 actual projects that were competitively bid and included engineering and design work and work that was all under roadways, and their figure was over \$200.00 a foot. We were coming in somewhere between \$130.00 to \$140.00 a foot.

After a lengthy discussion, M/S Guasco/Sullivan to adopt Resolution No. 11-1411 approving Final Acceptance of the fiscal year 2011-12 budget as presented. Roll call vote: Ayes: Guasco, Johnson, Sullivan; Noes: Egger, Meigs; Absent: None; Abstain: None. The motion carried.

**Item #7-CONSIDERATION OF ADOPTING RESOLUTION NO. 11-1410 APPROVING SEWER SERVICE CHARGE RATES EFFECTIVE JULY 1, 2011** General Manager Richards recommended approval of recommendation No. 2 in the staff report. He also recommended some changes to the resolution. First, that the third BE IT FURTHER RESOLVED paragraph on page 3 be deleted. President Johnson noted that this paragraph can be deleted because there was other language in the resolution that deals with strength factor setting for commercial establishments. Mr. Richards added that this paragraph was

also interpreted by at least 2 people to mean that staff could arbitrarily increase the rate and that's *not* why it's in there. Staff can just bring each individual issue before the Board.

President Johnson pointed out that the second recommended change to the resolution was that the words "district manager" be replaced by the words "general manager" because the title has since been changed. Mr. Richards said that the third change was at the very end of paragraph (1) on the top of page 6 where a comma should be added and followed by the words "and Prisons (if determined to be applicable) or another number determined by testing."

District Counsel Houston clarified for Director Meigs that this change was because of previous discussions about how we're going to handle the CMSA and the rates. This will give us flexibility if we're going to the CMSA proposed rates or our proposed rates. After a brief discussion about the 2.34 strength factor cited in this paragraph, Ms. Houston said immediately after 2.34, she could add the words "or another number determined by testing." This fourth change to the resolution was satisfactory to Director Meigs.

Director Egger said we would have time to put this on the ballot for the November 2011 election. He knows we've been told it's not necessary we follow the Prop 218 process. Putting this on the ballot would give our residents an opportunity to either agree with what we're doing or take a different position. Cities put measures on the ballot all the time. Some pass, some don't. He supported putting this whole package on the ballot. Even if that didn't happen, he has a problem with the increases. For Ross Valley it's about a 22% increase and for Larkspur it's 45%. That's not fair to Larkspur. Give Larkspur a 22% increase because they're already paying an Ad Valorem tax of \$72.00 above regular Ross Valley residents.

Director Egger pointed out that \$7 million of our money goes to the Central Marin Sanitary Agency to pay to treat our sewage. And we got a letter from a San Rafael law firm questioning the right of this pass-through from Central Marin Sanitary Agency to our ratepayers, who blame *us* for those costs. He's had a number of the same concerns expressed in that letter. He believed that they need to go through a Prop 218 process, hold public hearings and make a determination that in fact they need X amount of dollars to run the Central Marin Sanitary Agency.

Director Egger also tried to figure the Ad Valorem tax, which in Fairfax was about 5% or about \$100.00 a year. Larkspur has about a \$200.00 increase this year over the \$72.00 Ad Valorem tax of last year so they're paying about \$272.00. In order to arrive at those figures, the average homeowner in Larkspur would have to be paying about \$4,500.00 a year in property taxes. So he has a problem with raising Larkspur's Ad Valorem tax, and maybe that's why the Larkspur City Council was coming after us.

Mr. Richards noted that we took the pass-through function out in response to the concerns. He thought we decided if/when CMSA's costs increase, we'd be happy to come back and do a Prop 218 so the people will be aware. President Johnson commented that CMSA has already done their rate increase for this year in May and our rate plan is only a 1-year plan.

Director Sullivan pointed out that the Ad Valorem tax is *not* set by my tax bill or your tax bill. It comes from the county. It's from Proposition 13 and Proposition 8, an agreement between

the county and the state about how to distribute money. In this particular year, the Ad Valorum tax for the Ross Valley was \$226.00. That's how much everybody *outside* of Larkspur was paying on their Ad Valorum tax for the capital to work in the Ross Valley Sanitary District. Larkspur long ago decided that it, as a city, wanted to keep the Ad Valorum tax. And it's perfectly reasonable for it to do so. So Larkspur has *kept* the \$226.00 per property *average*. Some was \$100.00 and some was higher. That money was used to fund the government. And Larkspur was running on empty. Like the other cities in the Ross Valley, they have no money and they're going to have to raise taxes this fall to fix the roads. It's not a question of percentage increases. It's a question of adjusting the number to what the county has *stated* the Ad Valorum tax is. It's already being *paid by the citizens of the rest of Ross Valley* and it's not being paid by the citizens of Larkspur. And Director Sullivan is a citizen of Larkspur. It's the fairness doctrine. Are we getting the same amount per customer? And this is a 1-year agreement. At the end of this year we will have a flow-based study and know what the water usage was in the wintertime. We can go to the 25,000 or 28,000 connections and say, This is what the flow-based numbers will be. It will be much less for the small group of people who live in little, tiny apartments and have 1 sink and 1 toilet. It will probably be more for the family of 10 that lives in a big house. And the people who get a big rate increase will be here next year complaining about their rate.

President Johnson also emphasized that the Ad Valorum tax was about fairness. Without the adjustment that's mandated to do this way, the citizens in the Ross Valley area of the District would basically be *subsidizing* the Larkspur residents.

Paul Davis, 944 Sir Francis Drake, said this Board has a credibility issue and noted that the CMSA charge *may* increase next year. But this was contrary to Article 13 of the California Constitution. You can only include in a Prop 218 increase what will actually occur, not what *might* happen tomorrow or some other day. No new charges. None. Zero. Put it off for another year. Do the flow-based study and revisit the whole thing.

District Counsel Houston said the General Manger was trying to explain that pursuant to Prop 218, these were the rates that we went out for notice and we didn't adopt the highest rate. We went lower, which was allowed by Prop 218. We are not doing any new charges in the future. Mr. Richards clarified that if CMSA charges were *increased* and we had the pass-through, new CMSA charges, we would hold *another* Prop 218 hearing. So we are in compliance with Prop 218.

Louise Mathews, San Anselmo, said she appreciated that General Manager Richards brought forward the corrections to the resolution. She asked that the word "new" be inserted before the words "sewer user" in the first line of the second BE IT FURTHER RESOLVED paragraph on page 3. That way the ratepayers can be *certain* that the Board, under no circumstances, would create a new rate. If you choose to go to a lower rate, that's fine. If you choose that decision tonight, that's fine. By correcting these 2 paragraphs, that makes certain that you don't make up the difference at some future meeting by something she would consider inappropriate for a Board member. What she found interesting about AB 3030, which was mentioned in a *Marin IJ* article, was that that law was only applicable to sewer agencies across California—you have to find this—it only applies to the purchase of wholesale water. Not the labor or the tower or anything else. And it also applies to increases in inflation adjustments, and those have to be done within a 5-year period after each Prop 218 election. So she has a concern about CMSA in that this was in no way related to AB 3030. That's a completely separate issue. And this District just approved a budget that did not

take into consideration upcoming charges that may be increased by CMSA. She knew this from a District brochure, which she then quoted. The 218 election was less than a month ago and this Board was *not* prepared to talk to its ratepayers about what its actual needs were and how best this Board could function. These were critical issues that now find their way into Item 7 of the agenda.

Ms. Mathews said she had less confidence in this Board when they rewrite a resolution that has been online for 3 days. She said “prisons” should be taken out. We didn’t know why you put it in there. There was a reason. We didn’t like it. Prisons was *never* named as an entity in this, and this is what we voted on. Take out prisons please. Thank you.

Ms. Houston wanted to clarify that prisons were always included in the sewer rate and this resolution. We removed it because of some anticipated changes to the prison rates. Those changes may or may not occur so it was actually going back in the resolution, as all prior resolutions. She further clarified that the CMSA charges that have been calculated by this rate study that became part of this rate were included. There will be no new CMSA rates or charges or fees imposed on the ratepayers without Prop 218. In addition, if a district, a local agency, under Prop 218 does a 5-year rate plan with CPI inflator *in* it, under Prop 218 it was allowed to have a *5-year rate* and you *didn’t* have to hold 218 elections each time it’s increased. You only have to give a 30-day notice.

Ms. Mathews said that the June presentation made very clear that the prisons were to be considered a residential unit. So this issue of prisons and 2.34 in the resolution was problematic and she didn’t like that you’re moving forward in that direction.

Marsha Crane, Kentfield, said that when MMWD raised their rates 10% each year for the last 4 years, people went ballistic. She received clarification from Board members that the Kentfield rate would go up to \$638.00 from \$520.00, which represented about a 22% increase.

Ruth Brevard, Greenbrae, said that in 2008 the sewer charge on her bill was \$238.00. Last year it was \$500.00 and now you’re proposing \$800.00 and something. That was outrageous. You’re obviously doing something wrong. President Johnson pointed out that the rate for Greenbrae was \$638.00. The \$864.00 was for downtown Larkspur residents only. She further clarified that the rate was based on your parcel number, not your post office address.

Director Sullivan commented that in 2007-08 our rate was \$270.00. Of that \$270.00, \$253.00 was designed to go to the Central Marin Sanitary Agency. That left \$17.00 for the ratepayer to take care of the entire Sanitary District. He knew it’s important to treat the sewage but it’s equally important to collect it, and that \$17.00 per unit was not enough. So one of the first things he did when he was appointed to the Board was to look at all these numbers, and we actually had to *double* the rate just to catch up with what had been going with the increases from CMSA. The Central Marin charge to us went from \$108.00 to \$270.00 over 5 years. There’s no vote; there’s no 218 hearing; there’s nothing like this when Central Marin needs to do something. It’s perfectly rational that we as a people not have sewage overflows at our treatment plant; that gets bad press. So there’s an argument to be made for having a sewer plant that will never have a spill, but it costs a lot of money to do that, and there’s *no vote*. It just happens. The CMSA Board votes to spend money. They vote to spend \$70-80 million and that money just flows straight through to everybody in the Ross Valley. So while he *does* understand Ms. Brevard’s concern about the doubling of the rate, the vast majority of the money in the 2008 rate increase was to pay back what was going to CMSA.

Ms. Mazzoni, Marin Builders Association, commented about the data she had given the Board earlier and Director Guasco saying that he wanted additional information about some line items. It was her understanding that that was actually the responsibility of the District before it goes out to bid. She hoped staff would clarify that.

Alan Berland, Larkspur, said that the big item in the increases in the budget and the proposed rate were the pipebursting fees. In real estate it used to be location, location, location. In today's economy, it's not only location but at what *time* real estate goes on the market. The same goes for the construction industry. As Director Meigs pointed out, contractors were hungry now. He referenced the actual costs and comparisons done by the District for its estimates for pipebursting, and asked staff to tell us, for each of these numbers, when these costs were incurred. What was true a year ago may not be relevant today. He then commented about public relations and trust. Besides this Board ignoring most of the recommendations of 3 grand jury reports, an example of lack of trust was Director Sullivan saying earlier at one point "these budgets that we passed." He corrected himself and said "that we proposed." This tells us that this is really a done deal and he knows we have 3 votes to pass this proposed budget. Mr. Berland noted that when we have budgets that are subject to public hearing, the Brown Act forbids that. You *cannot* confer with each director to know how they're going to vote. He suggested that the Board take its duties seriously.

President Johnson addressed the potential Brown Act violation and said the reason we were aware of each other's opinions on the budget was because we had a budget meeting *last week* at which there were zero members of the public attending. When we went through the budget process and tried to find the cuts line by line, there was wild variation at the beginning of the meeting but we did come to some kind of consensus to in order to provide direction to staff. So if Mr. Berland was not at the meeting last week, he would not have seen that development in the steps.

In response to Mr. Berland's question about the District's pipebursting estimates, Mr. Richards said that 2 of the projects were from the previous year and 1 was from the year before that. He clarified that the Board *first* looked at this in 2009-10 so the projects would have been in 2008-09 and 2007-08, and that staff has had no bids within the last few months.

In response to a question from President Johnson, Ms. Mazonni explained that Director Guasco had asked for budget line items in their data for things like engineering, and it was her understanding that those items actually were the responsibility of the District before the work goes out to bid. She said that the figures she gave the Board were accurate. President Johnson said she understood that the District was responsible to do everything (engineering, design, etc.) in this situation and that the District figures were the *total* costs. Now that the Board has been furnished with the spreadsheet from Ms. Mazzoni, it will be possible to compare like items to like items.

Director Egger said these were really tough economic times for people in the Ross Valley and many of our residents were on fixed incomes. He *can't* support a 22% increase for Ross Valley residents and a 45% increase for Larkspur residents. That's a lot of money to add to their tax bill this year. He'd like to see the Board reduce those numbers to a more reasonable increase.

Director Meigs said there were too many unknowns here. She didn't think it's fair to the public to have this kind of increase. It's an emotional issue. There were a lot of people here complaining and she believed it's a trust issue. She's going to hold her ground, stand back

and look at it more carefully. As she's looked further at it line by line, there are more and more places where we could save money. She didn't think we've done due diligence.

President Johnson referenced the timing of the potential election, and pointed out that we have a deadline with the county to furnish any change to them for property taxes by the first week in August. This was why we started the process *months* ago. Unfortunately, an election wouldn't be until November so that wouldn't work out time wise.

Director Sullivan said he still agreed with Director Egger that we should put something on the ballot. It should be on the November or June ballot, and it should be the sense of the District about what we want to do. There's going to be an election for 2 seats on the Board next year, and a lot of changes are coming with the flow-based study and somebody at the EPA making a decision about what the costs will be. This budget was a compromise. It's perfectly reasonable to do a 1-year budget and then look *intensely for a full year* at all the various issues coming up.

After a lengthy discussion, M/S Guasco/Sullivan to adopt Resolution No. 11-1410, as amended, approving sewer service charge rates of \$638.00 per EDU for the Ross Valley rate zone and \$864.00 per EDU for the Larkspur rate zone effective July 1, 2011. Roll call vote: Ayes: Guasco, Johnson, Sullivan; Noes: Egger, Meigs; Absent: None; Abstain: None. The motion carried.

The Board took a break from 9:01 p.m. to 9:20 p.m.

#### **Item #8-APPOINTMENT OF NEW BOARD TREASURER FOR FISCAL YEAR 2011/2012**

Board members and staff clarified that the time commitment for treasurer was minimal.

After a short discussion, M/S Sullivan/Guasco to appoint Director Meigs as a new Board Treasurer for fiscal year 2011/2012. The motion carried unanimously.

#### **Item #9-APPOINTMENT OF NEW BOARD SECRETARY FOR FISCAL YEAR 2011/2012**

Board members clarified that the secretary has to sign all contracts and Board resolutions.

After a short discussion, M/S Guasco/Johnson to appoint Director Sullivan as a new Board Secretary for fiscal year 2011/2012. The motion carried unanimously.

#### **Item #10-APPOINTMENT OF NEW BOARD PRESIDENT FOR FISCAL YEAR 2011/2012**

Director Meigs asked Director Sullivan if he would be willing to be the next Board president. It's important that we share the wealth and have different leadership styles. Director Sullivan said he appreciated that but he just got elected secretary, which was wonderful, and he really did *not* want to be president.

After a short discussion, M/S Guasco/Sullivan to appoint Director Johnson as a new Board President for fiscal year 2011/2012. Director Meigs abstained. The motion carried.

#### **Item #11-CONSIDERATION OF RVSD REPRESENTATION/PARTICIPATION ON CSRMA BOARD OF DIRECTORS**

General Manager Richards reviewed the staff report and said it's important that we probably have somebody to do it (This is our pooled liability.) but it's a very

Benefits on page 32 as Ms. Martin-Miller suggested. Director Sullivan said it would be nice to see what the new language was. Ms. Houston said the Board had that option and added that we also had a timing issue.

After a lengthy discussion, M/S Guasco/Sullivan to accept the Audited Financial Statements for Fiscal Year Ended June 30, 2011 with the change, to page 32 in the Other Postemployment Benefits that belongs in the retirement section, to be brought back as an informational item. The motion carried unanimously.

The Board took a break from 8:43 p.m. to 8:52 p.m.

**Item #8-REVIEW 12 PIPE FAILURE LOCATIONS FROM CCTV AND GIVE DIRECTION TO STAFF TO MAKE REPAIRS** General Manager Richards handed out a hardcopy of the 40-slide PowerPoint presentation to Board members. (This presentation is attached to these minutes.) He said that the staff report and presentation the Board was about to see were really disconcerting. Since the first year he was here, we've talked about the Blue Book, a binder of known repairs in several hundred locations. Every single year we talked about staff enhancements to repair crews. We've added a pipe-bursting crew and made a lot of enhancements on one hand. On the other hand, as was explained to the Board in pretty great detail last April, we had a dire situation. Some good decisions were made resulting from April, but also some significant *limitations* were made following that with the Prop 218.

Mr. Richards said that what the Board was about to see was disturbing evidence that even what he shared with them in April was almost certainly optimistic. In April he told the Board that we're really going to be progressively entering a catastrophic phase with our collection system in the next 10 to 15 years, with some parts of it already there and maybe 20 miles or so of pipe that has been replaced in the last 20 years—15 years now with the last couple of years perhaps.

Mr. Richards said we've CCTVed about 8% or about 16.2 miles of our system in the last year. We've done *more* than that and you've heard and seen quotes that we've CCTVed 35 miles or closer to 45 miles, and that's *accurate*. However, those figures were from *outsourcing* CCTV work. Basically, the District did that to meet the Consent Decree. But it was not District staff that was doing the CCTV work and the District did not have the staff to *review* the video. We were simply doing it to be in compliance with the Consent Decree. We *still* don't have the staff time to review the work products somebody *else* did. However, the advantage of an in-house CCTV crew was that your *employees* were seeing it *every day*. Mr. Richards noted that your employee Mr. Miksis was already gun-shy about bringing him reports. Mr. Richards held up 2 new CCTV photos he received *today* that showed a pipe with total failure and one on its way to total failure.

Mr. Richards read a list of the various conditions of the pipes in need of repair, including ones that were broken and completely collapsed. He said that the superintendent staff came to him and said, We didn't have the resources; we didn't have the repair crew; and we can't even put a *dent* in this. We didn't have the capital funds; we didn't have the capital program and our organized 10- year capital program didn't even *touch* this. So what do we do?

Mr. Richards said the problem was that what the Board was going to see *today* and *every month* until we got it cleared up, was situations that were so severe that we can't *not tell you*.

We deal with severe type issues on a regular basis and the Board didn't hear about all of those because for the ones that were manageable, we prioritize them, pipeburst them, repair them and don't bother you with them. He noted that we found a sinkhole today, put a plate over it and had a repair crew going out. You cannot let a sinkhole linger. You have to fix it. He then explained the various reasons why pipes that were broken or collapsed required immediate attention, including a potential SSO site and sinkhole and other environmental, maintenance, capacity and public health issues.

The slide presentation contained numerous photos of pipe damage at 12 of the locations, which most critically needed attention. In some locations the pipe was *completely gone* and there were several yards of dirt in its place. There were screen shots of the work orders that came out of the CCTV truck. Mr. Richards and Director Guasco explained how to interpret the data in these reports, including the damage severity index. Brief video clips taken during the CCTV work were also shown. Mr. Richards pointed out that in some cases the damage to the pipe was so bad that the video camera couldn't get through. He clarified for President Johnson that the pipes were rodded (cleaned) *before* the CCTV cameras were put through them.

Mr. Richards answered questions from Board members throughout the presentation and at one point Director Meigs commented that if only people could see this, they might understand. President Johnson suggested that some of the photos be put on the District's website. He clarified for Director Egger that pipebursting would solve some of these problems. But the challenge was that the only way to get a mile a year of pipebursting was to go and pick a mile and do it. If we tried to set up and break down 12 times, it could *literally* take all year to do 12 set ups, and we'd get nowhere near a mile done. He clarified for Director Meigs that it would take 3 to 4 years to get through the *entire* system. In response to a question from President Johnson about how the areas for CCTV work were chosen, he said they were chosen to some degree, but at this point it's really bad news everywhere we went.

At the end of the presentation, President Johnson said that it gave the Board an amazing look at the status of some of the pipes in the District. She thanked staff for putting all of it together so the Board would know what they were actually looking at, and she acknowledged that it was additional work on their part.

Director Sullivan said he was glad we decided to bring the CCTV work in-house because we've never seen the pipes like this. A picture was worth a thousand words, remarked President Johnson.

With respect to how much it will cost to repair the 3,579 feet of holes in the 12 locations, President Johnson suggested we cost it out so we know what we're really talking about. Or does this meet the criteria of an emergency? She didn't personally know how to adjudicate that.

Director Meigs said it's kind of an emergency basis all over everywhere. We should stand back and take a broader look. Some of the ones that were critical should be looked at sooner than later. President Johnson noted that not one of those pipes was a sinkhole yet. Director

Sullivan said he thought we were technically in violation of some law with every single one of those. President Johnson said that once we knew we had a situation, we were obligated to remediate it. So we now know. We're on notice that we know about these situations so it's very difficult to turn your head away from it.

In response to a question from Director Egger about process, Mr. Richards said we could prepare specs and go to bid, which would cost a lot of money and a lot of time. We could bid the 12 locations out to 5 or 6 contractors as emergency repairs and bring the costs back to the Board, which would be the fastest way. He clarified for Director Meigs that we could have brought 30 locations to the Board, but these 12 locations we just can't justify leaving in the system. When you have completely missing pipes, voids and holes underground it was huge. It's a serious liability. If a car or truck drove over that and created a sinkhole, we're at incredible risk.

President Johnson pointed out that CMSA was talking about going to a flow-based system, and doing this kind of work would decrease our volume of flow to the treatment plant. So the more repairs we did, the more we would lower our cost of treatment when CMSA went to a flow-based system.

Director Egger was concerned that there would only be 1 or 2 contractors bidding. He would like to see it go through a regular bid process where we had a number of contractors bidding in a package. He was referring to the legal bid process where you do posting so people know about it, not just the ones we select. Mr. Richards said we can advertise it, and that contacting 5 or 6 contractors met or exceeded the standards under the law. We can have a call to bids and tell people to come down. Just in the 3 years he's been here, we've had calls to bids where 2 contractors have showed up and bids where 10 or 12 have showed up. Those were all advertised in the 3 different avenues we had to advertise. Director Guasco said that having more bidders did not always get the best pricing. Director Meigs disagreed and said that people were hungry for work right now.

Director Meigs wanted to know the total cost for all of these repairs. Director Sullivan said it was about \$1.5 million per mile. Director Meigs wanted to know how we were going to pay for this. Mr. Richards said we didn't have the money. We had a credit line at Bank of Marin we could use. We can do this. Director Meigs asked if doing this now created a big financial risk for the District. Mr. Richards said you had a looming risk 11 months away. He clarified for Director Egger that this work would not be done in the winter rainy season and we always did a proper bid process. He further clarified that the work would be staged and done case by case. We'd determine how much time was needed for each repair and watch the weather. There's always some risk involved. There was a brief discussion of the role District staff would play in the process. Mr. Richards clarified for Director Meigs that this project would be an addendum to the CIP plan, which has been really aggressive for the past 2 years.

Director Egger said he always wondered why the public never showed up for meetings. Because we're not raising rates, replied Director Sullivan. It's not about parking, said President Johnson.

After a lengthy discussion, M/S Guasco/Sullivan to director staff to bid out each individual site for repair.

Mr. Richards clarified for Director Egger that we would bid it out competitively and solicit bids. The bid would come in and the Board would award them. The Board didn't ever see the actual language that went out to the bidders. It's boilerplate, said President Johnson. Director Guasco said he was concerned that the concern was that we're not going to trust staff to entertain the bid and receive the bids. We, as a Board, are going to oversee that? No, said Director Egger. His experience with governmental agencies was that we had these projects and the town council reviewed the bid document and said, Yes, that's right. Let's go with it. Director Egger would like to see the actual bid contract that the contractor was going to pick up and look at. President Johnson said Director Egger was certainly welcome to see that standard document but the Board did not have to approve it per se. Director Egger thought the Board *did* need to approve it.

District Counsel Houston said the Board did not have to approve it. But she had to agree that it's a very standard form for public works bid documents. They would have the general requirements, the plan and spec requirements, and the insurance and bonding requirements. They're these big, thick things. You change the *beginning* part of it but all of the standard public works contract language was boilerplate. Director Egger did not want to see a *sample* bid document. He thought the Board had to be involved in this process. What's wrong with having staff prepare all the documents and bring them back to the next meeting? We can say, It looks great. Put it out.

President Johnson and Directors Guasco and Sullivan agreed that Director Egger could see the actual bid documents. Director Sullivan also said he personally did not have the expertise or the time to go through 12 *contracts* that he already knew will require them to go to these sites and go through each one of these repair items. It didn't make any sense for him as a Board member to micromanage what the engineer was going to deal with in the contract. But if someone has a need to look at the documents, that's fine.

Director Egger said he's never seen a public agency operate this way and he was just trying to keep us out of trouble. Director Sullivan observed that Director Egger unfortunately joined the Board when the District was in the middle of that *one* emergency repair of the rupture in December so that's his experience. But we've done dozens of projects in the normal way.

Ms. Houston clarified that the Board will see the dollar amount of the estimates when they respond to the bid. Then staff reviewed it and they'll award it to the lowest responsible and responsive bidder. Then the Board approved it at that point. Director Sullivan said none of the work got done unless the Board says yes.

Director Egger voted no. The motion carried.

After Director Egger repeated his reason for voting no, Ms. Houston said she's never had a agency where the actual public works contract went to the awarding agency. The Board or the legislative body gave direction to staff, which went out and prepared the bid, reviewed them, awarded them. She didn't believe there was anything in the Public Contract Code that required the Board to review the *document* before it went out. We've already had an

emergency repair bid that we did. We followed the Public Contract Code on that. We did the resolution adopting findings for the resolution that was also part of the Public Contract Code. She clarified for Director Egger that her law firm represented the cities of Los Altos and Gilroy and the South County Regional Water Authority.

Mr. Richards pointed out that there's a big difference between a public work contract and a private project contract, and between new construction and a repair. When this Board approved Kentfield, that's exactly what happened, i.e. what Director Egger described. If we were designing this and building it, you would *approve* the plans and specs just like you did for the SCADA facility. But this was *existing infrastructure* that we're going to bid on repair. There will be no plans and specs.

Ms. Houston agreed that there won't be plans and specs for this work. They're just going to bid out how much feet, how much it's going to be. When you award the bid or not, that will be the time you have to deal with how to pay for it.

**Item #10-CONSIDERATION OF FORMING AN AD HOC COMMITTEE FOR PRIVATE SEWER LATERAL COMPLIANCE** General Manager Richards reviewed the staff report and said he was following through from a request from Director Meigs to restart the sewer lateral committee we had a couple of years ago. District Counsel Houston said we had a study and then there was an ordinance the Board reviewed when she first came.

Director Meigs said she talked to the realtor board and they're in the process of creating a disclosure document about laterals but they haven't finalized it yet. They wanted to sell their properties and they're going to need to work with agencies that will *help* with their sales of property because of lateral inspections. Some of them can't afford it. It was a vague discussion. She thought this committee was mostly about working with the community to keep the laterals going. But the realtors have a whole thing in motion about requiring a lateral inspection at the point of sale; they just don't have the money. And after a house has been built for a certain number of years, they come in and inspect. She didn't know if the Board was looking at that or if we really needed to.

President Johnson and Director Sullivan agreed that this was a major issue but they weren't sure the realtors would want the District to make a lateral inspection a requirement. They didn't get into that, said Director Meigs.

Director Guasco described his experience in Sausalito where he enforced the city ordinance that required a lateral upgrade if the required video inspection showed that an upgrade was needed. It's point of sale or \$50,000 or more. The point was that it's in place to mitigate the issues with laterals without the city owning the laterals. It's very, very effective. There was a lot of pushback from the realtors up front but now they worked pretty well with the city. And in the end the realtor, the seller and the buyer were happy.

President Johnson noted that the condition of the property included the condition of the lateral, and when you're selling a house you're supposed to disclose a leaky roof or a manhole in the backyard, for example.

Director Meigs said the good thing was that the realtors wanted to talk and be part of this whole thing. She clarified for President Johnson that they would like us to review their disclosure statement. That would be great, said President Johnson.

After a lengthy discussion, M/S Guasco/Johnson to award contract for the construction of Board directed repairs from January and February 2012, Project No. 1 to K.J. Woods Construction, Inc. in the amount not to exceed \$818,000, and authorize the General Manager to execute the contract. Director Egger, Director Meigs and Director Sullivan voted no. The motion failed.

As one of the majority votes, Director Sullivan proposed that we continue this item until after we have clarified the funding. Mr. Richards asked if staff could bring it back at the special meeting in five days. Director Sullivan said yes we could if the *funding* was clarified in five days.

**Item #5-CONSIDERATION OF ADOPTING RESOLUTION NO. 12-1436 APPROVING THE ROSS VALLEY SANITARY DISTRICT ANNUAL BUDGET FOR FISCAL YEAR 2012/13 (JULY 1, 2012 TO JUNE 30, 2013) (ROLL CALL VOTE REQUIRED)** General Manager Richards said please approve your budget.

President Johnson announced that there were copies of the draft budget on the table in the back of the room.

She said that the *style* of this budget packet was very similar to last year's and it was very clear, very digestible, very understandable, and the charts and text were good. It not only compared *this year's* budget to *last year's* budget, but also to last year's *projected* finish of the year. This was the way to do it. She thanked Business Manager Martin-Miller and all those who assisted her in preparing it. She knew that *a lot of work* went into it.

Director Meigs was curious as to why this came out *now*. There was a standing Budget Committee with herself and Director Sullivan, and she didn't see it until this meeting. She thought there would be some reviewing and going over it before it would come to the Board. That's generally the *process*. That's how it occurred last year. Why was it here before we've had a chance to review it and come back with our feedback?

President Johnson said she was on the budget committee last year and we talked about it in concept. We didn't actually see the final document ahead of anybody else. Mr. Richards said that our understanding was that the Budget Committee met *three* times and went through it. Director Meigs said we only met for the bonds; we never met on this. No, said Director Sullivan. We had the budget meeting. We went over the budget meeting; we went over the flow-based stuff. Director Meigs said we had a ten-year plan meeting but not all this. Anyway, she was wondering what happened here.

Director Egger had questions regarding the following: page 6 of 45 (Large-Scale Capital Improvement Projects); page 12 of 45 (Organization Chart); page 14 of 45, lines 13 and 18 (Interest Expense and Total Expenditures); page 16 of 45, line 26 (Add: Bond Proceeds); page 17 of 45, line 5 (Operation Total); page 18 of 45, lines 6, 9, 11,13,15, 68, 70 (Retirement-Employer, Insurance-Health, Insurance-Workers Comp, Employee Fitness, Recruitment-Retention, Utilities-Gas & Electric, Utilities-Water; page 19 of 45, lines 24, 45 (Community Outreach/Legal Notice & Newsletter; page 20 of 45, line 21 (County Collection Fees); page 21 of 45, lines 4, 5, 6 (Professional Services-Legal Employment Matters, Professional Services-Legal General, Professional Services-Legal Litigation); page 22 of 45 , lines 14, 22 (Recruitment-Retention, Equipment Repair); page 24 of 45, line 3 (Capitalized Labor); page 26, line 8 (Proceeds from Borrowing/Bonds); page 27, lines 2, 11 (Restricted

Cash-Capital Expenditures, Accounts Payable & Accrued Expenses); and page 34 of 45 (Rolling 10-Year Capital Improvement Plan for Fiscal Years 2013-2022).

Director Egger said in looking at the budget, there's \$59 million in revenue as a result of the sale of revenue bonds. Then it looked like we still needed \$100 million in revenue bonds we might put out to the voters at some future date. Mr. Richards said the Board's direction to staff was to look into that and come back and tell you what it would take and what it would cost. What if, asked Director Egger, we put the *whole package* of revenue bonds out to the voters? Didn't sell any of that \$59 million right now and put that whole \$159 million out there, went to each community and said, These were the projects in your community that needed replacing. There were the photos. These were the issues and this was why we needed your support for this. If we went out and tried in effect try to sell, tried to take it to our communities and let them see what we're doing. Director Egger said it was interesting that we were talking about our pipes were all going to collapse soon! He wasn't *sure* they were all going to collapse soon. If *ours* were going to collapse, every city in the county's pipes and every district's pipes were going to collapse. We're all in the same boat. And no one's talking about spending this kind of money. No, commented Director Guasco, they're really *not*. Director Egger asked if we were that far out ahead of the curve or were we possibly replacing *some* pipes that may not really need replacing in the current very near future. He didn't know. We've videoed about 15% and may be close to 20% now. We've got 30% of our pipes videoed by a previous contractor. It just seemed that approval of this budget committed us to a program that may not be saleable to the communities. He didn't know.

Unless we went out to talk to them all and told them about the projects, said Director Guasco, we might get approval maybe. Director Egger said that's what he's thinking.

Mr. Richards said it was *fine* if we did that. That's a great idea. Then just give staff direction for how to spend the \$3.5 million. You didn't need to go out and bond, but you had to put two miles of pipe in the ground. So just tell us *which* two miles. It's really fine. It's your *choice*. Tell us which projects you want us to spend \$3.5 million on.

Director Guasco said we depended on *staff* to tell us which ones of those to do. We did, said Mr. Richards. It's right here. Here's your list and we gave you \$20 million this year. So just tell us which \$3.5 million you want us to do with the cash, and you guys can go lobby the community for revenue.

President Johnson asked what would happen if the community said no under Director Egger's scenario. That would be *their decision*, replied Director Egger. President Johnson clarified for Mr. Richards that she asked Director Egger what his plan would be if the community voted no in the advisory vote. Mr. Richards said that's a *different issue*. For the budget, the Board had to spend \$3.5 million. Don't do bonds; don't do 20 miles of pipe a year. Let's just do two miles a year. *Which* two miles did you want us to do right here in year *one* of the rolling ten-year CIP? *Which* \$3.5 million would you like us to spend?

Director Guasco said he didn't think we were prepared to respond to that right now. That's the choice, said President Johnson. Mr. Richards asked Director Guasco what he meant. Director Guasco said he may know the system pretty well but everyone else didn't. Mr. Richards said the Board had a court order to spend money. You can spend it on bonding or you can spend it on pipe. Whatever. That's your *choice*. If you're not going to bond, *which* two miles did you want us to fix? *Which* two miles for the court order do you want us to fix?

Director Sullivan looked at the budget as a guiding document. It helped us *prioritize* what we needed to do. But we knew that the vast majority of the pipe was put in after World War II and they're way past their useful life. We're pulling out pipes that had holes in them. We knew that, at least on the projects we voted on, we actually had to fix those pipes *now*. If the main in Larkspur collapsed next week, we'd have to fix that, too. He'd like to do this with a plan and some kind of logic. And he knew we had to do more than two miles a year to catch up. He saw an article in the paper saying that Sacramento wasn't going to catch up with its pipe for 600 years the way it was spending its capital! It's on a different program. We can't do that. But he liked the idea of using our *current capital money to bond*, and then put the rest of the question out to the public. If the public said, No, we're not going to fix it, he had to find another job. He can't be on this Board with the state telling him that he's personally responsible as a Board officer to do the work, and then the people saying, No, you can't do the work. That's an untenable position. He wouldn't offer it to anybody else and he certainly can't do it himself that way.

Director Meigs offered that you're putting a budget out early. Our next budget was not due until July 1. But you had to have it ready to go by then, said Director Guasco. Director Meigs wondered if we could continue this over until next month's meeting until we saw where the *bonds* went. It seemed like a lot of work and effort, and the bonds weren't even *bonded*. It seemed like we're putting the cart before the horse. She wasn't going to support this tonight because she was kind of on Director Egger's side feeling that it should be a general obligation bond or *at least an advisory vote on the ballot* to get some indication. Like she said at the last meeting, we had the Marin County Board of Supervisors with the resolution. When in the history of this agency have we seen the Board of Supervisors come forward with a resolution against what we're doing? It's out there; it's not resolved, and here we were with the budget early and we didn't even have the *bonds* in place! We're budgeting for bonds we didn't even have yet.

President Johnson said we're not budgeting early. She thought it was actually earlier in the month of May that we saw version one of the budget last year. The Board of Supervisors did not vote against what we were doing. They, as a responsible taxpayer, asked us not to increase our rate. That's what the resolution did; that's all it did. They should actually send out that resolution for any entity, any vendor they had that wanted to increase a rate to them. That would be responsible to their ratepayers. They should do that for *everybody* that *increased* a line on their property tax bill. She really didn't like that the Board of Supervisors' action got to be reinterpreted to mean something else entirely.

President Johnson applauded staff for getting the budget done. It's a *complex* budget. The issues were different this year than they had been. It's a very *sound* plan, given the issues we faced. She wished we could put more pipes in even *faster*, but there were infrastructure limitations. We just can't do \$60 million a year; we can only do X million a year. It's wonderful that the staff wanted to step up and expand their capabilities and reach for doing what this budget outlined. It's phenomenal. She thanked every single member of the staff in advance for what this next year would bring if this budget passed. She very much appreciated that staff *backed* this plan and *came* to the Board with this plan that captured the *essence* of what this District needed.

Director Meigs left the room at 8:22 p.m. because she wasn't feeling well.

Director Guasco said that at the May 10 meeting there were folks from the public here that had plenty to say—some for, some against. The *Marin IJ* was here. He noted that the state Waste Discharge Requirements (WDRs), a document that was present at the May 10 meeting, told the District what they could and could not do in wastewater, and included our responsibilities associated with that document as a sanitary district. He referred to Director Sullivan's previous comments regarding the liability of seated Board members associated with not executing the demands of the WDRs. Director Guasco *encouraged* the Board members to read that document. It's meaty and long and boring but it's the *law*. When we went ahead and made ourselves vulnerable to under-funding our required upgrades to our capital program, we put ourselves in a kind of double jeopardy situation. Not enough time spent concentrating on those efforts of understanding *what* we worked under for the *public*, and *conveying* that message to the public. Maybe we're doing our homework here, maybe we're not. Director Guasco thought that maybe we needed to spend more time on what we're supposed to be doing on this Board *other than* trying to tear down our budgets, our capital programs and our staff.

Director Sullivan asked Assistant Counsel Picone if, when the Board *approved* the budget, they approved it as a *guideline* for how they were going to approach behavior for the next year, or were they committing themselves to the numbers that were in the budget. Mr. Picone quoted from the NOW, THEREFORE BE IT RESOLVED paragraph of Resolution No. 12-1436: "the Board...authorizes the following expenditure amounts for fiscal year 2012/13 and that any unused funds remaining from the operations of these funds shall be held in reserve." The Board was committing itself to this amount as a maximum unless you had another source to change due to an emergency. He clarified for President Johnson that the District could spend *less than this* and, per the Resolution, "any unused funds remaining from the operations of these funds shall be held in reserve for that fund or as required by law."

Director Sullivan said this semi-answered his question. He listened to what Director Egger said, and Director Sullivan was trying to figure out if the Board was actually committing itself to going to the bond on the basis of the budget. If we voted for the budget, did that commit us to put the *bond* up to a vote immediately thereafter? Or was this something we could talk about for the next month and put the bond question out next month?

Mr. Richards clarified for President Johnson that the general theory was that a decision one night by a board did not bind a board to future decisions. That was a general rule.

Mr. Picone said the Board could change this.

After a lengthy discussion, M/S Guasco/Sullivan to adopt Resolution No. 12-1436 approving the acceptance of the budget for fiscal year 2012/13 as presented. Roll call vote: Ayes: Guasco, Johnson, Sullivan; Noes: Egger; Absent: Meigs; Abstain: None. The motion carried.

**Item #6-15 MINUTE BREAK** The Board took a break from 8:27 p.m. to 8:44 p.m.

**Item #7-CONSIDERATION OF ADOPTING ORDINANCE NO. 62 REGULATING THE ACCEPTANCE OF FATS, OILS AND GREASE (FOG) INTO THE WASTEWATER COLLECTION SYSTEM OF SANITARY DISTRICT NO. 1 OF MARIN COUNTY (ROLL**

**CALL VOTE REQUIRED**) General Manager Richards reviewed the staff report and said that FOG (Fats, Oils and Grease) was a requirement under the Sewer System Management Plan (SSMP) law of the state of California. There were certain requirements the District had to monitor from certain commercial agencies that produced more FOG than others. It was a service the Board contracted out for about four years. We made the decision to bring it in-house last year at the budget. We've been writing the ordinance, which was required, and producing the policies which would implement the FOG plan. Staff recommended approval.

President Johnson asked if the prior provider was required to turn over all of their records or data to the District. Mr. Richards said they're a public agency, so absolutely.

President Johnson said that in fiscal year 2008/09 the FOG program was provided by CMSA (Central Marin Sanitation Agency) to RVSD, San Rafael Sanitation and Los Gallinas Valley Sanitary District, and the cost was \$29,250 each, which basically stated that San Rafael had the same number of restaurants as Ross Valley Sanitary District, which we knew obviously was not true. President Johnson objected to this in the CMSA budget that year. In fiscal year 2009/10 it got worse where the District's rate went up to \$31,500, San Rafael's went down to \$28,200, and Los Gallinas Valley Sanitary District's went down to \$23,000. Again President Johnson protested because we obviously did not have as many food service establishments in the Ross Valley as in San Rafael or other parts of Marin. She was very happy that we're taking over this program because she didn't feel that what the District was charged by CMSA was an appropriate allocation. This will save us money. She thanked staff for doing the work to set this up.

Director Egger noted that the ordinance was 20 pages. It's huge as far as an ordinance went. It mentioned San Quentin State Prison and there's a possibility that we may no longer service San Quentin after June 30. Correct? It's possible, replied Mr. Richards. He clarified for Director Egger that about half or 30% of one District employee was running the FOG program now. We didn't have a lot of commercials and we did inspect all of the restaurants for their grease traps etc. He further clarified that this was the initiation of the ordinance, which fulfilled the requirements under the District's SSMP. The District had been in compliance since the SSMP was initiated. As stated, CMSA did it for the first three to three and half years. Then we got involved and did it with them for probably a year. This year we're completely taking it over. Mr. Richards believed that last year the District paid CMSA approximately \$35,000.

Director Egger asked if Ross Valley had its own gauge on its system, separate from Corte Madera, as it left Ross Valley and headed to CMSA, so we knew the strength factor of the wastewater we're sending CMSA. No, replied Mr. Richards. He clarified for Director Egger that the District depended on CMSA telling us what the strength factor was. Director Egger asked if CMSA separated out us from Corte Madera or did they combine us all. Mr. Richards said that Director Egger should probably talk with Jason Dow, the General Manager of CMSA, about that.

President Johnson said that CMSA just started measuring the strength factor at the end of March of this year. They had not measured strength before. Director Guasco said CMSA started measuring the strength factor right after the District started measuring the strength at San Quentin last year.

Director Sullivan asked if the District was planning to measure the strength factor. There was a question about that a year ago. Mr. Richards said we would love to. But without the capital

money to do the plan, we can't do the plan. We'd need the capital expenditures to do the work.

Director Sullivan told Director Egger that before he was on the Board, we had actually *talked* about putting monitoring equipment on various pipes for both flow *and* strength. We just didn't have the money to do it.

Mr. Richards clarified for Director Egger that the new SCADA system will have the ability to do that but it was not designed initially to do that. That was *extra money* and it was decided not to do that. We could tell it to do that and then it would.

Director Egger asked if we had an estimated cost for us this year for doing this FOG program. Mr. Richards said it was a built-in cost. We had an employee we've had for about three years and she did safety and a couple of very key things for us. This was one of the things the Board directed staff to have her do probably three years ago.

Director Egger said it was going to save us \$17,000 annually but how much was it going to cost us? Mr. Richards said it would be between 20-30% of her time. It cycled up during inspection time and trailed off after that. She also did the lateral grant program and environmental compliance. He clarified that two to three times a year she inspected about 75 facilities that complied under this ordinance.

In response to questions from Director Egger regarding compliance, Mr. Richards said we wanted the facilities to comply voluntarily. Most of them complied quickly. There were one or two outliers that were having a hard time.

President Johnson and Director Guasco noted that facilities could make money by selling their food oils to business that came around and collected it.

There was further Board discussion about the cost of doing the FOG program in-house versus contracting it out to CMSA, and the fine system set up in the ordinance that was already part of District policy. Mr. Richards clarified that the \$1,000 fine was in the *existing* District code that was in the binder given to all Board members when they joined the Board. He also noted that the District didn't intend to charge anybody anything; the fines were not a revenue generator. We just tried to get compliance.

Danielle McPherson, Interim Safety Coordinator - Environmental Compliance, clarified for Board members that all facilities were now in compliance.

Director Guasco had a *strong opinion* on this. If the grease got into the system, the cost of the strength factor going up at the treatment plant was passed on to *everyone else to pay*. That's *unfair*. Grease also created blockages and clogged pipes.

Director Egger mentioned that the owner of a Chinese restaurant in Fairfax told him that her landlord raised her rent \$200 a month because of our new whatever we're going to do. So Director Egger had to tell her that we didn't do it. President Johnson said the landlords were lying. Director Sullivan said the flow-based system was going to give the small restaurants a break and lower their costs.

Mr. Richards said we've had several people come to us saying that their landlords had told them because of our—quote, unquote—rate increase, they're raising rents, and we've worked with several property *renters* and businesses. First of all, the Board honored what all of the town councils and the county asked you to do. You *didn't* adopt the flow-based rate.

Nonetheless, we've worked with a number of customers showing them that 1) the rate didn't change at all and 2) if it had changed, in almost every case, their rates would have gone down significantly. He clarified for Director Guasco that the people who came to the District in this case learned something, but in the example of the Chinese restaurant that Director Egger just gave, how would they know? Director Egger said he would put her in touch with Mr. Richards, who said he'd *love to talk* with her.

Director Sullivan asked if we could *amend* Appendix B, the Schedule of Payments, or was it written in stone. As he understood it, said Mr. Richards, the Board can change or amend *any* of the ordinance they'd like, with the exception of the \$1,000. That was part of the District's code. The Board could also change the *code* but that would be a *separate* action. President Johnson noted that changing the ordinance was not the vehicle for changing the \$1,000 fine.

Mr. Richards said that his first year here, CMSA came to him and said that there were three to five facilities not complying, for whatever reasons, and they didn't want to drop a hammer on them. They asked if a letter could be sent to them, which it was, and eventually they all complied.

Director Guasco briefly discussed the variety of enforcement tools he had available to him in Sausalito and noted that he never had to fine anyone anything. He acknowledged that times were *tough* economically but this work *had to get done*. He would also love to add FOG grants for FOG compliance to the lateral grant program in Ross Valley.

After a short discussion, M/S Sullivan/Guasco to adopt Ordinance No. 62 Regulating the Acceptance of Fats, Oils and Grease (FOG) into the Wastewater Collection System of Sanitary District No. 1 of Marin County. The motion carried unanimously.

**Item #8-AUTHORIZE THE GENERAL MANAGER TO EXTEND THE EXISTING PROFESSIONAL SERVICES AGREEMENT WITH WEST YOST ASSOCIATES FOR THREE TEMPORARY INSPECTORS TO PROVIDE CONSTRUCTION MANAGEMENT SUPPORT THROUGH FY12/13, NOT TO EXCEED FOUR (4) INSPECTORS AT THE RATES PROPOSED**

General Manager Richards reviewed the staff report and said this item essentially was saying that for any projects the Board directed staff to do, we could use the inspection services up to the maximum dollars approved, and the services would be available for a fiscal year. If the Board *preferred*, staff will come back to the Board with each set of projects and ask for a *new approval*. But right now we needed inspection help for the capital projects we've agreed to repair. Mr. Richards clarified for President Johnson that the three inspectors approved several months ago didn't *expire*, but those projects were being wrapped up.

President Johnson said that when a project was final, it would be more efficient and she would like to see the costs for inspection, compaction testing, engineering etc. allocated separately so she would know the *final* cost of each project. That's normal, said Mr. Richards.

Director Egger referenced the organization chart and asked if we only had one inspector. He thought we had more than one. Mr. Richards said we had just one inspector. We had two at one point several years ago and we converted one of those. He clarified for Director Egger

Houston said she was thinking of a *paid* published notice, which might be a good way of letting the public know that we *were* changing our meeting dates.

Director Sullivan said there were *two* issues. One was the actual *notice* that there was a meeting and the other was the specifics of the agenda, which sometimes delayed the announcement. We knew last *time* that we were going to have a meeting today so it would have been possible to publish a *rough* of what we were going to meet about. Then we could *amend* it to the other things. People wanted to come because there was a meeting, not because of just one thing on the agenda.

M/S Meigs/Sullivan to approve the Agenda as distributed. The motion carried unanimously.

**Item #3-CONSIDERATION OF ADOPTING RESOLUTION NO. 12-1454 PROVIDING FOR THE BORROWING OF FUNDS FOR FISCAL YEAR 2012-2013 IN THE AMOUNT OF \$3,000,000 AT 3.5% ANNUAL INTEREST FROM THE FUNDS HELD IN CUSTODY BY THE COUNTY OF MARIN (ROLL CALL VOTE REQUIRED)** President Egger said we were *initiating* the process; there was *no guarantee* we'd be granted this loan from the investment pool. We're trying to meet all the concerns of the county and have a completed application when it went in.

Acting General Manager Martin-Miller briefly summarized what occurred at the last Board meeting regarding this item. She then noted that it was a *relatively* simple process. There was a *resolution* to pass. We had the option of taking the loan out only until December at a specific amount of interest, i.e. about \$18,000. And there's the option of taking it out until *April* with approximately \$53,000 in interest. Those dates coincided with the tax payments. Loan agreements have been drafted for each scenario. If the Board chose to approve this, we could get them signed and into the county tomorrow. We *did* appear to have cash flow, if we're *very careful* between December and April. But we also had an *aging system* that did have failures. And going into the rainy season, we didn't know if we were going to have a Magnolia trunkline or not. President Egger also agreed with staff that *perhaps* thinking about keeping it until April was *worth* the Board's consideration.

Ms. Martin-Miller said that the only other item Roy Givens had requested was a letter from counsel talking about the risk the county might have in relation to our payment of their debt being superceded by another obligation. That draft letter was emailed to Board members and printed out today.

President Egger said that Mr. Givens said that our package would be run by county counsel to make sure that counsel felt *comfortable* with the pool loaning us that much money. The majority of the money in that pool was from the school districts in the county. President Egger said we needed close to \$2 million to get us through, and the \$1 million was basically a cushion to be able to deal with emergency projects this winter. He assured Mr. Givens that the Board voted to settle the one lawsuit and end that whole contentious issue. On the second lawsuit, the Board directed counsel to try to come up with some kind of settlement agreement or reasonable compromise that would work in everyone's favor. He got a call last night from Katie Rice, who was *concerned* about the lawsuits, and he told her the same thing he told Mr. Givens.

Ms. Houston suggested better language for the draft letter in the third paragraph about the certain litigation, i.e. to replace “to seek reasonable settlement of this issue” with “to explore a reasonable settlement of this issue.” That’s about all we could do at this time. She will add that back in because she thought it was important. There was also language added about the pipebursting, i.e. to stop the pipebursting with our own crews. They’re asking for declaratory relief and injunctive relief to make us stop doing what we’re doing. President Egger said the worst-case scenario would be to disband the pipe-bursting crew and put those employees to work in those other positions we had vacant.

Director Guasco thought that *didn’t* do the District any good other than settle a litigious issue. It had yet to be *proven* that we’re in the *wrong* and it *slowed us down* replacing pipe.

Ms. Houston referenced some language President Egger added to the draft letter about unsuccessful litigation in the past on the part of the Construction Industry Force Account Council, and didn’t think that really *helped* us in the outcome of this litigation. She had better language in mind.

Director Sylla said there wouldn’t be a cash judgment in the next six months anyway. Litigation didn’t happen that fast. Ms. Houston agreed. She added that a hearing regarding some discovery in this litigation was scheduled for April 23, 2013. This was like an audit letter where you tried to update what was happening; we’d say that the discovery was continuing.

President Egger clarified for Director Meigs that the Marin County Board of Supervisors did not vote on this. It was Roy Givens’ decision. That’s ridiculous, said Director Meigs. President Egger noted that it wasn’t the county’s money; it was an invested pool of money and most of it was from the school districts. Director Sullivan said that Mr. Givens *did* make good decisions most of the time. President Egger agreed. But this time Mr. Givnes was going to ask county counsel what *he* thought of it.

In response to questions from Director Guasco, President Egger went into more detail about Ms. Rice’s concerns about RVSD’s litigation and President Egger’s response to those concerns. He even sent her a copy of the CMSA (Central Marin Sanitation Agency) settlement agreement. He clarified for Director Sullivan that he did not bring up the pipes and pumps we had to fix anywhere in the conversation. Director Guasco said Ms. Rice could call him anytime to talk about that; he could talk to her ad nauseam about it.

President Egger said he *assured* Mr. Givens that should the county pool approve the loan, the District would not go to Wells Fargo and we would *skip* CMSA.

Director Meigs wanted to know the *history* of these loans. President Egger said that Mr. Givens said he hadn’t and didn’t give many at all. He recently approved one for the Town of San Anselmo.

Director Sylla thought the bridge loan was a *good* option.

Director Sullivan was perfectly willing to go for the loan with the *shorter* time period. But probably the slightly better option was the six-month time period with a little more interest. Since the resolution didn’t specify the length of *time*, he suggested signing it and having President Egger negotiate with Mr. Givens, based on what county counsel had to say.

President Egger said if the Board approved this tonight, he would hand deliver it to Mr. Givens tomorrow. Ms. Houston noted that we just submitted the *package* and then went

away. Ms. Martin-Miller clarified for President Egger that the county already *had* our wire transfer information *on file*. Let's *do it again*, said President Egger, so there's no misunderstanding. Mr. Givens also said it would take no more than ten days to receive the money. President Egger said our best bet was to just have the six-month loan until April, and not the TRAN note, which was also listed in the resolution.

After a short discussion, M/S Meigs/Sullivan to adopt Resolution No. 12-1454 providing for the borrowing of funds for Fiscal Year 2012-2013 in the amount of \$3,000,000 at 3.5% annual interest from the funds held in custody by the County of Marin. Roll call vote: Ayes: Egger, Guasco, Meigs, Sullivan, Sylla; Noes: None; Absent: None; Abstain: None. The motion carried unanimously.

Regarding fallback options, Ms. Martin-Miller clarified for President Egger that Wells Fargo hadn't turned us down yet; they've asked for more information. Mr. Gaffney from Bartle Wells called yesterday and said he thought he had a *lead* he would investigate for us. And the underwriter who talked to us about bonding called and said he had Umpqua Bank Oregon that was interested. So we had potentially more *options*. But because these were coming in later in the game, it would take some time.

**Item #4-CONSIDERATION OF ADOPTING RESOLUTION NO. 12-1455 IDENTIFYING THE BOARD PRESIDENT, BOARD TREASURER, GENERAL MANAGER, INTERIM/ACTING GENERAL MANAGER, CHIEF OF OPERATIONS, AND DISTRICT ENGINEER AS THE AUTHORIZED CHECK SIGNERS FOR THE DISTRICT (ROLL CALL VOTE REQUIRED)** President Egger said this resolution didn't set a *priority*; it just gave *who* could sign. His concern was putting Board members in an administrative role.

Regarding the cost of bonding for the check signers, Acting General Manager Martin-Miller clarified for President Egger that the cost of the policy was less than \$1,000 for a \$100,000 bond for everyone. And \$100,000 seemed to be *common*. She gave a specific example and added that it was also the amount that CMSA bonded for through the same agency. She noted that we would have to keep the forms filled out and updated *electronically* with who was in which role.

District Counsel Houston clarified for Director Meigs that the new resolution *did* change the policy, Exhibit A. Director Meigs said she didn't *get* it. She asked if this was an *amendment* to the old policy. Yes, replied Ms. Houston. It should say that somewhere, commented Director Meigs.

Ms. Houston noted that the resolution was just for check signing; the bonding was not included. President Egger said maybe we would have a separate motion directing staff to enter into bonding for the check signers.

After a short discussion, M/S Sullivan/Meigs to adopt Resolution No. 12-1455 in the attached Exhibit A. Roll call vote: Ayes: Egger, Guasco, Meigs, Sullivan, Sylla; Noes: None; Absent: None; Abstain: None. The motion carried unanimously.

M/S Meigs/Sullivan to direct staff to implement the bonding portion of the staff report and complete the forms necessary for the \$100,000 bond at a cost of less than \$1,000 for the six check signers. The motion carried unanimously.

**Item #5-CONSIDERATION OF ADOPTING RESOLUTION NO. 12-1452 AMENDING THE BUDGET FOR THE 2012-2013 FISCAL YEAR, A REDUCTION IN CASH EXPENDITURES FROM \$41,618,455 TO \$19,926,816 (ROLL CALL VOTE REQUIRED)**

President Egger said that Director Meigs requested this item be brought back from the last meeting, where there were only three Board members present.

Acting General Manager Martin-Miller said this essentially exactly the *same* resolution and the *same* package that was presented to the Board at the September 19 meeting where there *were* three Board members present, which was a quorum. Ms. Martin-Miller said that Director Meigs had several questions and comments, which were also then answered and addressed during the meeting. The direction from the Board was to bring this back *at some point*. It seemed logical to bring it back this evening with the *prospect* we'd be going to the county requesting the loan, and it seemed best to have an amended budget adopted so we could point affirmatively to the cuts we were making and how we were planning on proceeding through the next fiscal year.

Director Meigs went through her little list to bring the two other Board members up to speed. She referenced Attachments A and B, item 6, and said that on the original budget for *treatment* for operations it went up \$1 million based on actual charges now received from CMSA (Central Marin Sanitation Agency). She didn't *understand* the increase and her notes indicated she *didn't* ask about it at the last meeting. Ms. Martin-Miller said that part of it was a *change* from EDUs (Equivalent Dwelling Units) to flow-based, which made the District responsible for a larger percentage of the *treatment costs*. The rest of it was an acknowledgement that what the previous general manger was having us do was not approved by the *Board*. The plan was to automatically deduct any lost transportation and conveyance charges from the loss of San Quentin from our payments to CMSA.

Director Meigs asked Ms. Martin-Miller to *back up* and take things slow because it sounded like there were three or four things. There were two things, replied Ms. Martin-Miller. First of all, CMSA, *after* we formulated the original budget, decided to change the way they charged *treatment* from EDUs to flow. When they calculated that, she believed the change was roughly a 4% increase or \$327,000 or so. Another *portion* of it was that the original budget was developed with the concept and plan that we would deduct San Quentin's conveyance charges for the use of that force main from our invoices from what we owed to CMSA. Ms. Martin-Miller and Director Sylla clarified for Director Meigs that this had *not happened yet*. Director Meigs said it was very convoluted. Director Sylla clarified that the District was going to charge CMSA \$619,000 while we were *litigating* to determine who owned the force main.

Ms. Martin-Miller clarified for President Egger that since the District was no longer responsible for San Quentin's treatment, we paid CMSA approximately \$7.8 million to \$7.9 million for the year ending June 30, 2012. She added that the figure in the amended budget now matched exactly with CMSA's projected figures of what they would be billing us. We were in *parity*.

Director Meigs referenced the litigation costs on line 15 and noted that we started originally at \$300,000 and now we're at \$421,000. Legal Other had been *reduced* quite a bit but that's still a *lot of money* for litigation compared to other sanitary districts. What was it based on? President Egger said it was for thirteen legal employment matters. District Counsel Houston said it was also for the investigations, and she believed the arbitration

was in there.

President Egger said that line 14 was for Legal General, which was the contract for \$15,000 a month. Over the next few months, he was trying to get all of the District's contracts before the *Board*. Ms. Houston clarified for President Egger that the \$15,000 a month contract didn't have a *term*. It had a *review period* that hadn't happened and it had a *termination* clause, like a sixty-day notice she believed. There were no employee benefits or severance pay involved. President Egger said one day in the future we'd take a look at that contract.

President Egger referenced line 15 for Legal Litigation, and Ms. Martin-Miller clarified that we were still running about \$100,000 a month in attorney's fees in total with the litigations we had going on today. We needed to wrap them up. That's *regular* general counsel *plus* all of the other activities. Ms. Houston very briefly summarized the current litigation.

Ms. Martin-Miller clarified for Ms. Houston that none of these numbers included the Larkspur settlement payments. Director Sullivan pointed out that that wasn't a legal expense; it was a capital expense.

Ms. Martin-Miller clarified for President Egger that the legal total of around \$680,000 anticipated *severely ramping down* in the second half of the year because the *Board* had set a direction to try to wrap up what's going on now. But what's going on right now was *very expensive*. She clarified for Ms. Houston that the legal total *included* the overage on the monthly retainer. The monthly retainer bills showed a *lot of activities* related to the CMSA arbitration. Ms. Houston said the \$15,000 was for fifty hours of work. There was a *lot more* than fifty hour of work with all of the meetings, and the issues related to the CMSA arbitration and negotiations and all of that. Her feeling was that in the next year we were going to ramp way down.

Director Meigs said what was getting to her was that a *review* needed to be done and we needed to see the bills and how the billing was done and review the attorney firm. She trusted what was going on but this was just *so much money!* We have done this in the *past* and we have found some problems with billing. Some of the Board members were *here* and they *knew* what happened. She wanted a review done of the *billing*, and we've *got* to figure out another way to do this.

Director Guasco asked if we were working toward trying to *approve a budget*. President Egger said we were. But \$680,000 for total legal for this coming fiscal year! Director Guasco noted that Ms. Martin-Miller estimated the legal total cost to be *less than* what we're actually paying right now. He asked if this wasn't *enough information* to approve a budget. Director Sylla said she *heard* what Director Guasco was saying. This was a number in a budget that we could possibly dramatically under spend. She heard Ms. Martin-Miller say that her projection was based on *some* historical past and the *direction* she saw the Board going in. Ms. Martin-Miller added that we've already spent over \$300,000 in this fiscal year, and this budget was only \$650,000 or \$680,000. So in the first quarter, we've spent nearly half of what was in this budget. Her projection for this budget was her thinking that this Board had plans to wrap up some of these major litigations in the first half of the year, and ramp down *considerably* in the second half. Ms. Houston agreed.

Director Sullivan thought it was perfectly reasonable to say we wanted to have a review, but holding up the budget to do a review tonight didn't make any sense. Director Meigs

agreed.

Regarding the lateral replacement grants for \$250,000, Ms. Martin-Miller clarified for President Egger that the *requirement* of the Regional Water Quality Control Board (RWQCB) was that the District had a *program*. The maximum they would give us *credit for* for each lateral replaced was up to \$1,700. We went up to \$4,000 per our current policy. President Egger asked if we should have a figure of maybe \$1,700 per reimbursement, and then set up a revolving loan for up to an addition \$2,300 from a revolving fund that we'd loan them the money and it would be returned to the fund over a period of time, like Las Gallinas Sanitary District.

Director Guasco explained how the loan program for laterals worked in Sausalito.

As far as timing went, said Ms. Martin-Miller, the budget was planned to have the lateral replacement grants *available* again starting January 1, 2013, so we would have some time to look at *modifying* that program and bring it *back* to the Board. We must start it up again though; it was a requirement of the RWQCB. President Egger said we *didn't get credit* if we went over the \$1,700 so maybe we needed a *new program*. We could leave that number in for tonight and then *amend* it. Director Meigs agreed. President Egger said we should get a hold of Las Gallinas' *program*, take a look at it, cut and paste, and see if it would work for us.

Ms. Martin-Miller said she'd like to make sure the Board had a copy of the current program as it was written for the District as a starting point. She would email the PDF of the policy to Board members because that was what would have to be amended.

Director Sullivan pointed out that there were something like fifteen thousand laterals in our collection area. If we provided \$1,700 per lateral that would fund about one hundred forty seven of the fifteen thousand. It would take *a while* to get to total replacement but it's a small step.

Ms. Martin-Miller said the *past performance* in this program showed that the cost for people to replace their laterals was usually *not less* than about \$6,000 and often *much more*. We're going up to \$4,000 or about 50% since the costs in *our area* have been rather high. President Egger said that *obviously* the state felt that \$1,700 was sufficient. That was a grant, said Director Sylla, versus a *loan*. TPSD had a loan program also so we're going to create a hybrid.

Director Guasco said the District had no language in its ordinance to address the replacement of *common* private laterals, i.e. a lateral shared by more than one house. He explained how Sausalito dealt with that situation and emphasized that their solution got the project done. That's the really important part of any of these programs, i.e. to get the pipes fixed. Otherwise, if you didn't help people get to the "yes point" with a *well-incentivized* program, they're not going to do it! He added that there was a litany of common shared laterals in Larkspur and they were in bad shape! There's also the *educational curve* to teach people about private common laterals. And when there's a sewer overflow in someone's house, that was when the liabilities started leading to us via the property owners. He hoped we as a *District* dealt with this sooner than later because right now we had nothing that addressed it.

President Egger said if we took up the laterals in *January*, that would be a *good time* to talk about it. Director Sylla said that Director Guasco was saying to take it up before January

so we could have the new program in place. Ms. Martin-Miller agreed. Now we're talking *December*, said President Egger. Director Sullivan said we already *had* the policy. We just had to adjust the numbers a little bit and *do it*. Ms. Houston said that after the Board did something with this budget, it could direct staff to bring the lateral program back for review. Director Sullivan commented that we'll call it the One Hundred Year Lateral Program because that's how long it would take to fix all of the laterals. Plus, said President Egger, we'll want a copy of Las Gallinas Sanitary District's program.

Director Meigs referenced the \$51,000 for recruiting on line 11 and said she *knew* it could be expensive. Were we *really* thinking we were going to spend this for recruiting? We already had *five* candidates *now*. Ms. Martin-Miller and Director Sylla clarified that this was for recruiting the *permanent* general manager. Ms. Martin-Miller clarified that she thought it could be *quite expensive* because her experience with recruiting firms was that they charged based on a percentage of the salary being *offered*, as well as actual expenses for posting, printing and all of those things. She knew the District *had* paid some pretty high recruiting costs for some of their professional positions in the *past*. Until we got that RFP out there and got it back, she really didn't *know*. She thought she talked about this at the last meeting. The Board *needed* to have some block of funds reserved so they could *do* the recruitment they *wanted*. She and Director Sullivan clarified for Director Meigs that if the money *wasn't* used, it stayed in the *bank*.

Director Meigs asked what Ms. Martin-Miller meant by "stayed in the bank." Did we have a *fund* for money that wasn't used and it was put somewhere? Like a miscellaneous? Ms. Martin-Miller said we had *no reserve funds* formally set up. So for any unused funds or if we're under budget, it just meant that our bank account or our LAIF account was *larger*.

Regarding retirement for employees, Ms. Martin-Miller clarified for President Egger and Director Meigs that even if we *did* get a general manager on, he would presumably fall under what all new employees fell under, i.e. being responsible for their *own* employee portion. She clarified for President Egger that the increase in Retirement Employer was because our retirement plan upped the ante a little bit, and she believed there was a *calculation error* in the spreadsheet that was used by the person who put together the original budget. Director Sullivan commented that everybody was *howling* about the increases being required by CalPERS.

Ms. Martin-Miller clarified for President Egger that the medical/dental contributions for employees went up because it's based on what actual rates *were*. At the time we did the budget, we didn't *have* those; we did an *estimate*—the increase in medical premiums being anywhere from 5-7% *annually*. There was discussion about how that seemed way too *high*. It actually turned out to be much *higher* by the time we got the information from CalPERS, who administered our benefits. She clarified for Director Sullivan and President Egger that the \$36,000 was the medical/dental for *retirees*, and the \$91,000 was the medical/dental for all the *administration*, i.e. six people.

For the benefit of the Board members who weren't at the last meeting, Director Meigs said she met with Ms. Martin-Miller for about an hour and a half to go over a rough draft of the summary. Redoing it in a rough sense, Director Meigs found \$160,000 of overtime. She didn't know if that was *a lot* of overtime, and she didn't know what the *mechanism* was on who *approved* overtime. These were *backup* systems where— Since they've reorganized *her* job many times, they cut their budget and overtime was like *poison*. It had to happen at

times but they created a system to have less overtime.

Director Meigs also noticed that \$107,000 was spent on office supplies for various departments. A lot of it was making these Board packets. Maybe there were some creative ways we could figure out to get laptops or something. She didn't know what other agencies were doing.

Director Guasco asked if the \$160,000 for overtime was strictly for *union* employees. *Primarily* for union employees, said Ms. Martin-Miller, or other hourly employees of which we had three in admin and the rest were— Director Guasco asked if he would be *correct* in assuming that a lot of overtime was union employees responding to on-call duty or even *being* on call, which was part of a bargained contract. Yes, replied Ms. Martin-Miller. Director Guasco said that the *overtime* we spent on call-outs was *generally* because of *either* overflows in the public right of way or the District's right of way, and in some cases *private* problems that we had to determine whether it was a public or private issue. Of course, other issues that came up with sewage were *failures* in pipe. Yes, replied Ms. Martin-Miller. When it was an actual sewage issue, some of our call-outs were because she believed that residents of the Ross Valley had gotten used to actually getting a response from our people. Sometimes we found it was a *water district* problem once our guys got out there, but our guys got paid for going out there.

Director Guasco said the guys got these calls in off-hours—weekends, holidays, in the evening after normal working hours—and part of the procedure was that we received *all* the information the on-call company gave us, and then we called the property owner to get *more details* and find out *everything* about it we could before we responded. Yes, said Ms. Martin-Miller. Chief of Operations John Clark clarified for Director Guasco that he believed the employee got paid from the time they got the phone call until the time they got home. Ms. Martin-Miller added that they also got a minimum amount of time. If they mobilized and were out for only *ninety minutes*, they got *three hours* of overtime.

Director Sullivan said the basic question was, Were there some *savings* available? He didn't think that *talking about it here* was going to help us. We actually had to have some data. If people were spending money on call, we're not going to get away with it.

Ms. Martin-Miller said that crews were not allowed to just lounge around a job site any day and spent an extra hour out in the field. If something was going on in the field where the crew supervisor felt that it was going to require more time or that they're having a problem or needed more bodies, they would *call* the superintendent or Mr. Clark to let them know what was going on. A decision would be made—you needed to stay there until you got it to this point so that we could fill it in, put a trench plate on or it had to show this ability to flow or whatever it *was*. Other than that, they came in, were done by 4:00 p.m. and they're *out*.

We just paid a *boatload of overtime* because of having to shut down and monitor our pump stations in the middle of the night to facilitate work going on at the treatment plant. She clarified for Director Guasco that we did not invoice CMSA for the overtime. Our guys took the *opportunity* to perform some maintenance. It's something we did every few years and it *had to be done*. There was no unauthorized overtime.

There was a brief discussion about what happened when someone was responding to a call and got *another* call. Ms. Martin-Miller clarified for Director Guasco that there was language about *when* a call was considered a *second* call.

Director Meigs wanted to know if *most* districts were doing all this paper. She's seeing more *laptops* being used at council member meetings. It's over \$100,000 a year for office supplies! Would doing that cut our money? Yes, replied Ms. Martin-Miller. One common way—she thought she mentioned this on September 19—she's seen city councils and other government boards *operate* with their agenda packets was for the district or municipality to purchase *iPads* or a tablet of some kind, load the agenda packet onto the iPad, deliver the iPad to the council members and have them use it, and then return it to the agency for safekeeping.

How much staff time would you *save* if you didn't have to put all these copies together? asked Director Meigs. Ms. Martin-Miller said the production of these copies took probably six to eight hours of *one* staff member's time. She clarified for President Egger that about a dozen packets were produced for each regular meeting. Director Sullivan said if we went electronic for our self, we could *legitimately* ask the newspapers and all the other people we're sending paper to, to go electronic as well. Ms. Martin-Miller said there was a public copy of the agenda packet that's brought to the meeting, and we kept one hard copy on file for ourselves. We were allowed by law to treat the production of any paper agenda packet for a member of the *public* as a Public Records Act request and charge a fee for the *production*. That's going in the wrong direction, commented Director Sullivan.

President Egger said that the problem with the laptops and iPads— Was that they went *missing*, said Director Sullivan. President Egger continued and said the problem was that the council members had their laptops, there was an item on the agenda, and they're being lobbied from someone from the outside with information the public had no idea about. Ms. Martin-Miller said that's only if you had *access to the Internet*. If you bought a tablet and you didn't have the 3G or 4G option to *connect* to the Internet, and you didn't have a connection to wifi while you're here, you had no *ability* to go to the outside and get lobbied on those iPads. You had *only* what was *loaded* on the iPad.

Director Meigs referenced the \$500,000 for the engineering department and noted that we weren't doing any CIP. She couldn't remember what Ms. Martin-Miller said at the last meeting about this for the *whole year*. Ms. Martin-Miller said it's primarily salaries and benefits. For three staff people, added Director Sylla. Ms. Martin-Miller said it was for two PEs (Professional Engineers) and an assistant engineer. This gave them more time in support of planning, but she also talked at the September 19 meeting about the need to have a well-defined and well-planned ten-year Capital Improvement Program the *Board* could adopt and get behind. Those were the things these engineers would do. They were needed for *all* of the repair projects and the things we did, and they needed to continue to do that even though we're not doing a full Capital Improvement Program. We needed them *involved* in those projects. When Director Guasco said the engineers would be needed for the SCDA system, Ms. Martin-Miller pointed out that the SCADA system project was completely *dead* for the *moment*.

Ms. Martin-Miller said the engineers also interacted with other agencies on *their* projects that may conflict or cross paths with our infrastructure. So there were a *great many things* the engineers could be doing, in *addition* to updating several of our engineering documents and policies.

Director Meigs said we did all of this *aggressive work last year*, and these were the same amount of engineers we had last year that we're keeping *now*, but we didn't have any CIP

projects. If made her wonder if we really needed *all three of them*. Would some of them be willing to take time off? There's down time. She was just looking at the *whole picture* as best she could. She didn't know. Maybe she was off the wall. She'd like to hear from *other* Board members. Was she sort of here or *not here*?

Director Guasco asked Director Meigs if she was talking about carving away at labor right now. Director Meigs didn't know what to say. If we *didn't have the work happening* like we did before, then she didn't know exactly what they were doing if we only had *small projects* here and there because we didn't have the money to *pay* for them. Then what did the engineering department do? She didn't know.

Ms. Martin-Miller clarified for President Egger that the contract for inspectors was cancelled. President Egger said he assumed that if we had an emergency project, our engineers were going to be doing the inspections of what's going on out there. Or did we have three engineers who hung out at the office and did work. Weren't they out in the *field*, too? *At times*, said Ms. Martin-Miller. They had a *considerable* amount of time in the office. Most of their work was *tied* to the computer, the phone, the files and drawings. She clarified that for the moment staff was dealing with Larkspur and the grading and still interacting with and guiding the consultant.

Director Guasco suggested that perhaps District Engineer Ishii could speak to some of these points. Ms. Houston suggested that instead of going forward with the *budget* tonight, bring back a discussion on *this*. President Egger said maybe the time to do this was when the new general manager was on board rather than trying now to second-guess the operation. Director Meigs said she didn't know. She was just *guessing*. Director Sullivan said she was *second-guessing*.

Ms. Houston said that was something the interim or the new general manager would discuss. It sounded like it was a budget issue for *next year's* budget unless the Board wanted another agenda item on this, i.e. certain things from this budget you wanted more information on.

Director Meigs said we're making a lot of changes in how we're *doing* things here—really. We're going one hundred and eighty degrees now. *Every* department, *everything* needed to be looked at and evaluated. Were we doing it efficiently? Could we do it *better* or maybe *overlap* or cross-train or whatever?

Believe me, said Ms. Martin-Miller. *We were doing those things*. Director Guasco said we cross-trained pretty heavily. Director Meigs said she didn't hear that, and she would like to see each department make a *strategic plan* of like—well, we're not doing this here. Kind of an overview or evaluation. Ms. Martin-Miller said those types of things were *better done* when we had an *over-arching* strategic plan to be able to answer to, where we had Board directed goals and objectives so that our department heads could actually plan, too.

Director Guasco said that when Director Meigs first joined the Board we tried to get a strategic plan going. There wasn't much traction at the Board level for that but he was all for strategic planning. Director Meigs thought we put money *aside for that*. Director Guasco said it never came to *fruition* because there were too many things going on. Director Sullivan said we never had the money but the *idea* was right.

Director Sylla thought we needed to move forward with this now and President Egger's comment was right on. When we had a permanent general manager, then we could start

thinking about staffing levels, direction, and how we're going to start fixing pipes and pumps again.

President Egger would like to see us set up a token amount of dry period reserve funds of \$1,000 as a capital improvement fund reserve. Set up these *symbolic* funds in the hope that one day we would have our own dry period reserve fund *sufficient* to get us through that period when we weren't getting tax money.

Director Sullivan noted that our finance guy, John Farnkopf, made *all of those suggestions a year and a half ago*. We needed to have \$15 million *here*, and we needed to be prepared to have this kind of *emergency*. The problem we're *facing*, which didn't get *talked about* all the time, was the \$200 million we had to spend fixing the pipes. He's willing to put \$1,000 in there but we had to move!

Ms. Martin-Miller proposed a future action in that direction. She believed the Board had to look at a whole set of draft financial policies that she had been looking at. We could fit some of that in and bring it back to the Board. It didn't have to be the final *amendment* to the budget. We could bring back a specific amendment designating allocations to those reserves *if* the Board agreed that those reserves needed to be set up under a financial policy. Would that be a good course of action?

President Egger said he was used to cities having a dry period reserve. And we're *scrambling* because we didn't have a fund. Ms. Martin-Miller said we knew how much we had to have. When we passed the last set of *rates*, we specifically said that *you're not going to make it through the fall of 2012*. President Egger said that was a guess. No! replied Ms. Martin-Miller. We knew!

President Egger said if you had a reserve fund and this was how much you *needed* to get you through, that's really clear. Ms. Martin-Miller said we had it very clear in the form of cash flow statements moving through the future and *showed exactly when* that shortfall would happen. It was in the budget; it was discussed during the *2010 rate setting meetings*; and the *decision was to ignore funding those*.

Director Guasco said he understood what both of them were saying and they were both right. He thought he heard President Egger saying we knew we needed to create reserve funds in 2010, 2008, 2007 and 2005. But we never really did that—ever! We definitely sat on money; we didn't spend it *also*. Then we ended up having to *spend* money to fix things and ramp this place up and try to make it hopefully a *flagship* district some day. The bottom line was we *never set aside money as a "reserve fund."* So we're behind the eight ball on that big time. Ms. Martin-Miller agreed.

President Egger said you couldn't spend a reserve fund on salaries, capital improvements or an emergency project. It was there to get you through the dry period. Director Guasco pointed out you could have a reserve fund set up for *capital* needs or emergencies or all sorts of things. Or operational needs, added Ms. Martin-Miller.

Director Sylla said that, as someone sitting out in the audience up until a few months ago, the situation we're in now was the result of folks thinking the *bonding* was going to take place. Whether they should have *relied* on that or not—that was why we're in this situation now. She thought we were *all* committed to *never* being in this situation again. So we needed to figure what's going to *happen* to make sure that didn't happen again. She hoped we *wouldn't* kick the can down the road again and again.

Ms. Martin-Miller said staff was *fully prepared* to bring back financial *policies* that would allow the Board to set the *types* and *amounts* of targeted reserves that we wanted. And we could still *amend* this budget *specifically* for the amounts you wanted to contribute to those reserves for this year on a *separate amendment* for *just that purpose*. We could do this tonight.

Director Sullivan pointed out that we actually had to *have the money* to put into the fund. And still be able to fix pipes and pumps on a *regular basis*, added Director Guasco. With some *more* changes to what we're doing, added Ms. Martin-Miller.

After a lengthy discussion, M/S Meigs/Guasco to adopt Resolution No. 12-1452 amending the budget for the 2012-2013 Fiscal Year, a reduction in cash expenditures from \$41,618,455 to \$19,926,816.

President Egger said he would relate to Roy Givens what we did here, i.e. adopt a budget with substantial cuts, so he *understood* that we're taking some pretty drastic means to turn the District around and reduce our spending or control our costs.

Roll call vote: Ayes: Egger, Guasco, Meigs, Sullivan, Sylla; Noes: None; Absent: None; Abstain: None. The motion carried unanimously.

**Item #6-CONSIDERATION OF ACCEPTING A PROPOSAL AND AUTHORIZING THE ACTING GENERAL MANAGER TO EXECUTE A PROFESSIONAL SERVICES AGREEMENT WITH ILS ASSOCIATES, INC., FOR GRADING PERMIT WORK AT THE DISTRICT PROPERTY AT 2000 LARKSPUR LANDING CIRCLE IN AN AMOUNT NOT TO EXCEED \$38,260**

President Egger said we put out an RFP and got only one response. In the future for small projects, we needed to try the small firm of Garcia and Associates in San Anselmo. In Fairfax, they underbid ILS in the past.

Director Guasco said that *part* of the criteria for doing this grading work was to have a QSP (Qualified Storm water Professional) involved. This state certification only started being handed out last year so not every PE (Professional Engineer) was a QSP. He also cited two other requirements.

Ms. Martin-Miller said we put it out to *several* people and we made the information available on our website for any *other* interested parties.

District Engineer Ishii said there was an alleged violation of illegal grading on the property as cited by the City of Larkspur. To remedy the matter, staff had met with the City of Larkspur staff and discussed the requirements and the additional requirements to bring the property into compliance. Mr. Ishii then listed the additional locations where the RFP was posted. He said that the ILS proposal appeared responsive. They had the *qualified* individuals who had all the necessary licensees to prepare the storm water pollution prevention plan. The primary role of the consultant would be to evaluate the existing conditions on the property, make recommendations on how to *improve* the best management practices and erosion control on the property, prepare the grading permit application and plans, and meet with the City of Larkspur. They would *submit* the application to the City of Larkspur for potential approval. Mr. Ishii described the additional requirements and permits involved. It's estimated that the level of effort would cost approximately \$38,260, as quoted by the consultants. That cost did *not* include the permit applications he just mentioned, which had their *own* set of fees, and which were on the



# ROSS VALLEY SANITARY DISTRICT

*Serving the Greater Ross Valley Area for 111 Years*

2960 Kerner Boulevard, San Rafael, Ca 94901

Ph: 415.259.2949 Fax: 415.460.2149

Directors: Frank Egger, President ~ Pam Meigs, Secretary ~ Peter Wm. Sullivan M.D., Treasurer ~ Pat Guasco ~ Mary Sylla

## BOARD MEETING AGENDA

December 19, 2012

4:00p.m. – 5:30p.m. – Capital Improvement Plan Workshop Only

**CONFERENCE ROOM – ROSS VALLEY SANITARY DISTRICT**

2960 Kerner Blvd.

San Rafael, CA

**\*Meeting will reconvene at 7pm at the Twin Cities Police Department**

250 Doherty Dr.

Larkspur, CA

### Welcome

*The RVSD Board of Directors welcomes members of the public at its meetings and encourages citizen participation and input. The Board takes seriously its responsibility to be a model of civility and to safeguard the public ability to directly address the Board by providing the appropriate Board Meetings Decorum in accordance with Resolution No. 10-1378, which is posted at every Board meeting. Thank you.*

***The Board President will call agenda items, ask for the Staff Report, hear questions or initial concerns from Board Members, open the item for public comment and return to the Board for additional comments and action. The public may speak for up to three minutes, as time allows, on agenda items.***

1. Call Meeting to Order
  - a) Pledge of Allegiance
  - b) Roll Call
2. Approval of Agenda
3. Open time for public to raise items not on agenda or for future agendas  
*Members of the public may address the Board re: issues that are within Sanitary District No. 1's jurisdiction. **The Board can hold no discussion during this time.***
4. Review of November 21, 2012 Notice of Violation Letter from the Regional Water Quality Control Board
5. Presentation by District Engineer and Engineering Staff Regarding RVSD Capital Improvement Plan (CIP): History, Methodology, Recommendations
6. Discussion of Capital Improvement Plan (CIP) Options as Related to RVSD's Required Response to the San Francisco Regional Water Quality Control Board's Notice of Violation Letter Dated November 21, 2012 and Next Steps

**Adjourn to reconvene December 19, 2012 at 7:00pm at the Twin Cities Police Department - 250 Doherty Dr. Larkspur, CA.**

Name: Alpha A  
Date: 12-14-12  
Loc: RA/PTC  
Int: [Signature]

Any person with a disability covered under the Americans with Disabilities Act (ADA) may receive a copy of the agenda or a copy of all the documents constituting the agenda packet prepared by the local agency or other interested person for this meeting upon request in an appropriate alternative format. Requests for mailed copies of agendas or agenda packets are valid for the calendar year in which requests are made and must be renewed annually after January 1. Any person with a disability covered under the ADA may also request a disability-related modification or accommodation, including auxiliary aids or services in order to participate in a public meeting. Please contact the office at 415.259.2949 at least ten (10) working days prior to the meeting and provide information on the assistance required.

Copies of all staff reports and documents subject to disclosure that relate to each item of business referred to on the agenda are available for public inspection at least 72 hours before each regularly scheduled Board meeting at the District Office, located at 2960 Kerner Boulevard, San Rafael, CA. Any documents subject to disclosure that are provided to all, or a majority of all, of the members of the Board regarding any item on this agenda after the agenda has been distributed will also be made available for inspection at the District Office during regular business hours.



**ROSS VALLEY SANITARY DISTRICT**

2960 Kerner Blvd

San Rafael, CA 94901

(415) 259-2949 ~ [rvsd.org](http://rvsd.org)

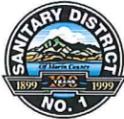
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**Item 5**

The Presentation will be provided at the Workshop

Attachment(s):

- a) Rolling Capital Improvement Plans (CIP) for Fiscal Years 2014-2033  
(Proposed Draft 10-Year, 15-Year, and 20-Year Plans)

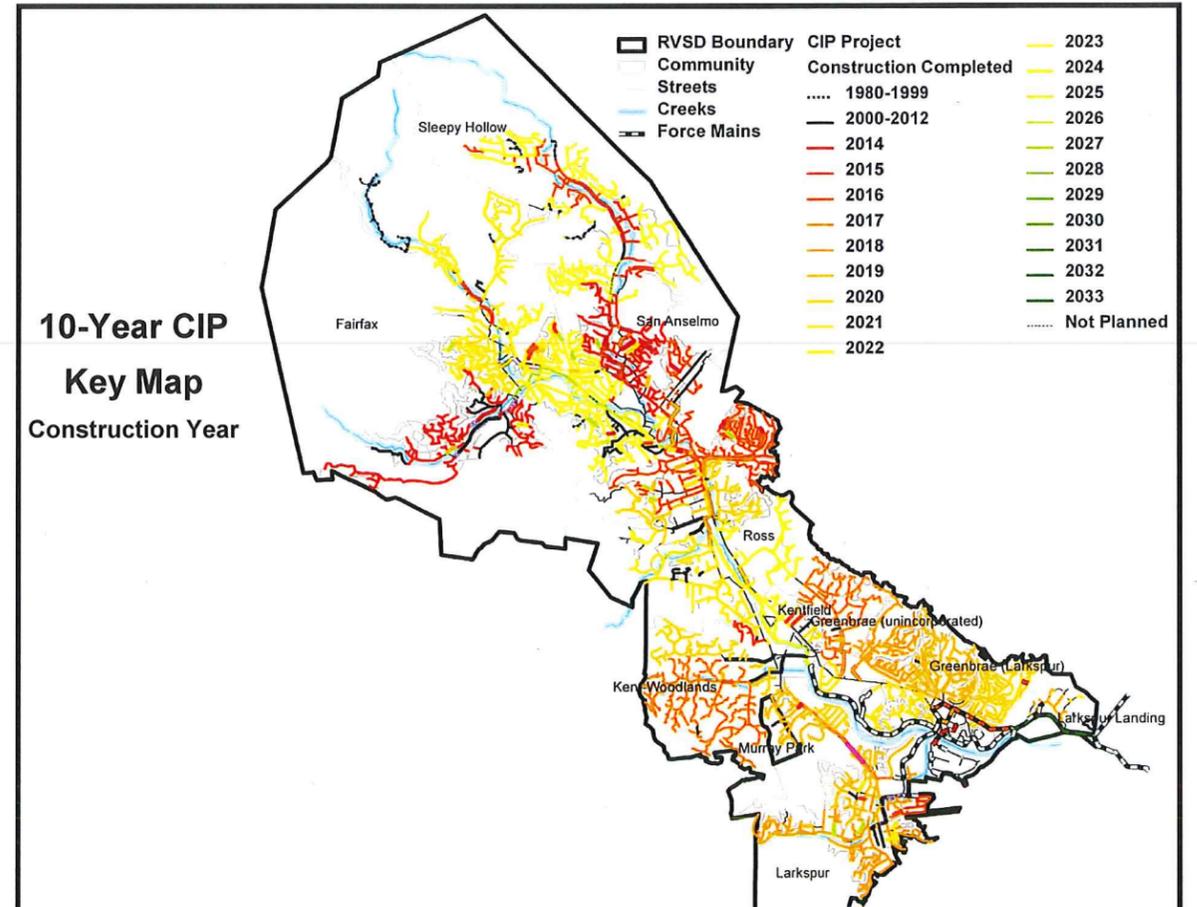


**ROSS VALLEY SANITARY DISTRICT**  
**ROLLING CAPITAL IMPROVEMENT PLANS (CIP) for FISCAL YEARS 2014-2033**

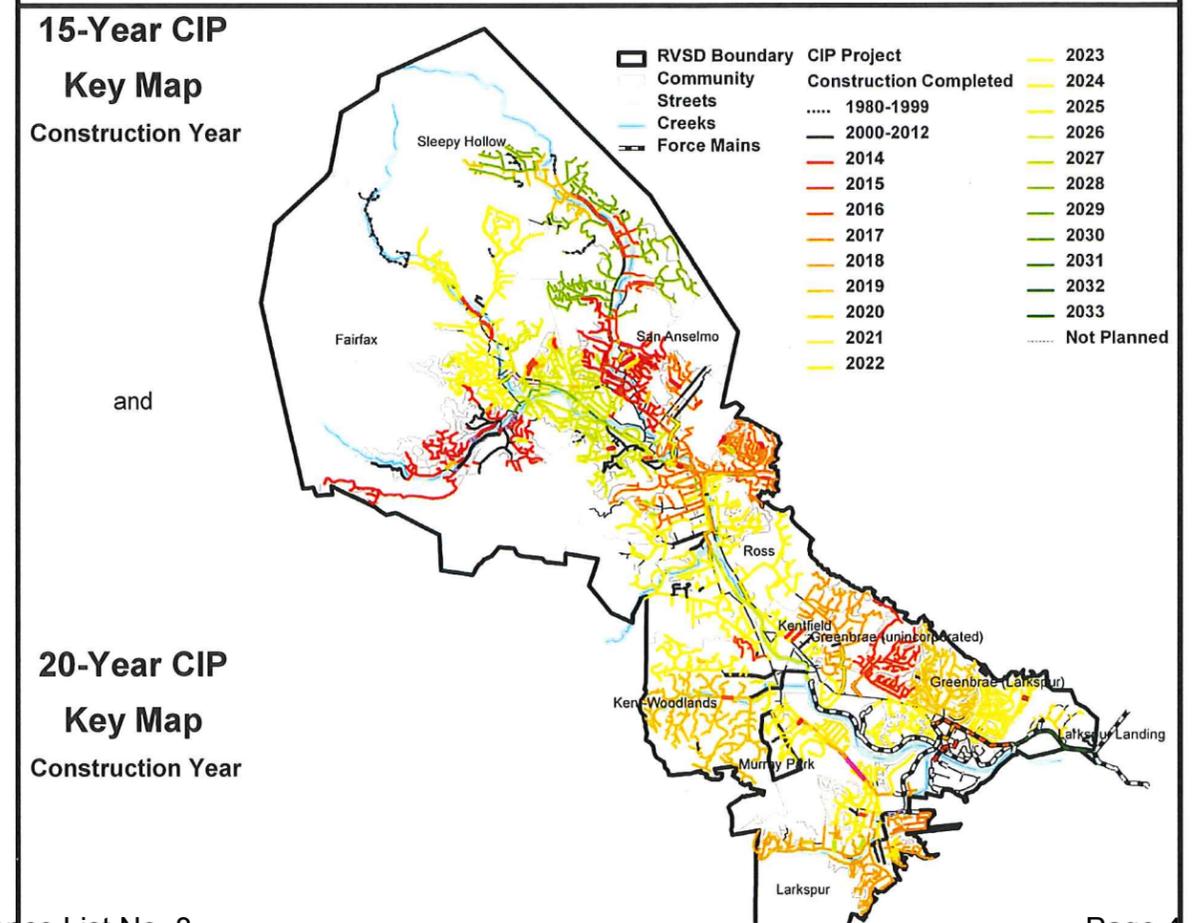
Proposed: December 14, 2012

**DRAFT**

FY	Actual Pipe Length, ft	Actual Pipe Length, mi	Laterals, ft	In Lieu Length, ft	Total Pipe Length, ft* (Actual + Laterals + In Lieu)*	Total* Pipe Length, mi	Total Cost
2014	88,960	16.8	6,200	7,356	102,516	19.4	\$ 14,692,000
2015	62,312	11.8	12,270	5,811	80,393	15.2	\$ 14,671,500
2016	74,223	14.1	12,080	8,364	94,667	17.9	\$ 14,908,000
2017	95,485	18.1	16,600	0	112,085	21.2	\$ 14,520,000
2018	91,680	17.4	14,520	0	106,200	20.1	\$ 14,387,000
2019	74,565	14.1	9,580	0	84,145	15.9	\$ 14,839,000
2020	92,405	17.5	14,120	0	106,525	20.2	\$ 14,567,000
2021	131,700	24.9	10,700	0	142,400	27.0	\$ 14,076,000
2022	63,870	12.1	4,300	0	68,170	12.9	\$ 14,606,000
2023	108,210	20.5	7,500	0	115,710	21.9	\$ 15,454,000
<b>TOTAL</b>	<b>883,410</b>	<b>167.3</b>	<b>107,870</b>	<b>21,531</b>	<b>1,012,811</b>	<b>191.8</b>	<b>\$146,720,500</b>



FY	Actual Pipe Length, ft	Actual Pipe Length, mi	Laterals, ft	In Lieu Length, ft	Total Pipe Length, ft* (Actual + Laterals + In Lieu)*	Total* Pipe Length, mi	Total Cost
2014	87,960	16.7	6,200	909	95,069	18.0	\$ 11,208,000
2015	45,887	8.7	4,110	9,818	59,815	11.3	\$ 11,443,500
2016	36,278	6.9	6,840	8,804	51,922	9.8	\$ 11,839,000
2017	66,870	12.7	12,610	2,000	81,480	15.4	\$ 11,084,000
2018	66,249	12.5	15,480	0	81,729	15.5	\$ 11,186,000
2019	69,750	13.2	7,860	0	77,610	14.7	\$ 11,083,000
2020	54,815	10.4	7,210	0	62,025	11.7	\$ 11,284,000
2021	43,356	8.2	13,720	0	57,076	10.8	\$ 11,168,000
2022	113,800	21.6	9,890	0	123,690	23.4	\$ 11,594,000
2023	93,465	17.7	9,750	0	103,215	19.5	\$ 12,047,000
2024	60,520	11.5	4,100	0	64,620	12.2	\$ 14,054,000
2025	84,860	16.1	5,900	0	90,760	17.2	\$ 13,342,000
2026	5,390	1.0	0	0	5,390	1.0	\$ 14,614,000
2027	6,580	1.2	0	0	6,580	1.2	\$ 17,708,000
2028	64,610	12.2	4,200	0	68,810	13.0	\$ 17,758,000
<b>TOTAL</b>	<b>900,390</b>	<b>170.5</b>	<b>107,870</b>	<b>21,531</b>	<b>1,029,791</b>	<b>195.0</b>	<b>\$191,412,500</b>



FY	Actual Pipe Length, ft	Actual Pipe Length, mi	Laterals, ft	In Lieu Length, ft	Total Pipe Length, ft* (Actual + Laterals + In Lieu)*	Total* Pipe Length, mi	Total Cost
2029	0	0.0	0	0	0	0.0	\$ 4,755,000
2030	0	0.0	0	0	0	0.0	\$ 4,155,000
2031	0	0.0	0	0	0	0.0	\$ 4,873,000
2032	2,100	0.4	0	0	2,100	0.4	\$ 24,570,000
2033	2,100	0.4	0	0	2,100	0.4	\$ 24,570,000
<b>TOTAL</b>	<b>904,590</b>	<b>171.3</b>	<b>107,870</b>	<b>21,531</b>	<b>1,033,996</b>	<b>195.9</b>	<b>\$203,500,000</b>

**SHECAP BASIN COLOR CODING LEGEND**

Basin color coding represents the amount of water entering into the District's sewer system as:

RDI/I Rainfall-Dependent Infiltration/Inflow or  
 GWI Groundwater Infiltration

**RDI/I Rates**

The numeric value assigned to each color is the number range of Percent of Contributing Area with the rainfall entering the system within each basin.

Grey	Undeveloped Land	
Dark Green	2-4	
Light Green	4-6	
Yellow	6-8	
Orange	8-10	
Coral	10-12	
Red	≥12	

**Groundwater Infiltration Rates**

The numeric value assigned to each color is the number range of gallons per day of groundwater entering the system per acre of land within each basin.

Grey	Undeveloped Land	
Dark Green	1 – 199	
Light Green	200 – 399	
Yellow	400 – 599	
Orange	600 – 799	
Coral	800 – 999	
Red	1000-1100	

**LIST OF ACRONYMS AND ABBREVIATIONS**

**General**

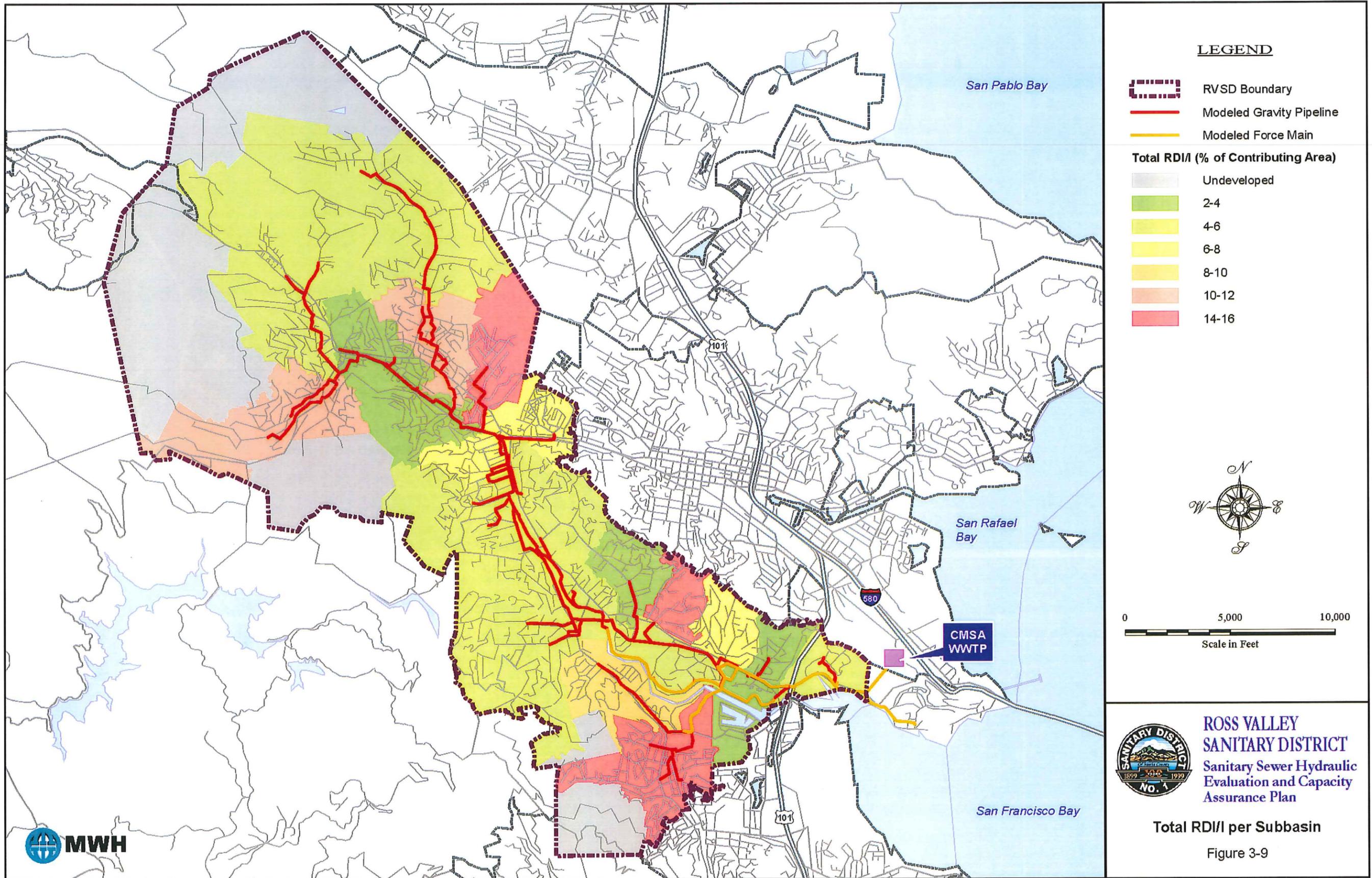
B	Flow Monitor Basin
BDR	Board Directed Repairs
BWF	Base Wastewater Flow
CCI	Construction Cost Index
CCTV	Closed Circuit Television
CIP	Capital Improvement Program
CMSA	Central Marin Sanitation Agency
d/D	Depth to Diameter Ratio
District	Ross Valley Sanitary District
DR	Dimension Ratio
DWF	Dry Weather Flow
ENG	Engineering
ENR	Engineering News Record
FM	Force Main or Flow Meter
FT	Feet
FY	Fiscal Year
Gpcd	Gallons Per Capita Day
Gpd	Gallons Per Day
GS	Gravity Sewer Mainline
GWI	Groundwater Infiltration
I/I	Infiltration and Inflow
IDF	Intensity-Duration-Frequency
JPA	Joint Powers Authority
LRGP	Lateral Replacement Grant Program
MGD	Million Gallons Per Day
MH	Manhole
MI	Miles
MT	Microtunnel
NOAA	National Oceanic and Atmospheric Administration
NRCS	National Resources Conservation Service
OC	Open Cut
PB	Pipe Burst
PS	Pump Station
RDI/I	Rainfall Dependent Infiltration and Inflow
RVSD	Ross Valley Sanitary District
RWQCB	San Francisco Bay Regional Water Quality Control Board
SCADA	Supervisory Control and Data Acquisition
SCS	U.S. Soil Conservation Service
SD#1	Sanitary District No. 1 of Marin County
SHECAP	Sanitary Sewer System Hydraulic Evaluation and Capacity Assurance Plan
SL	Sliplining
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SSRMP	Sewer System Replacement Master Plan
TL	Trunk Line
WWTP	Wastewater Treatment Plant

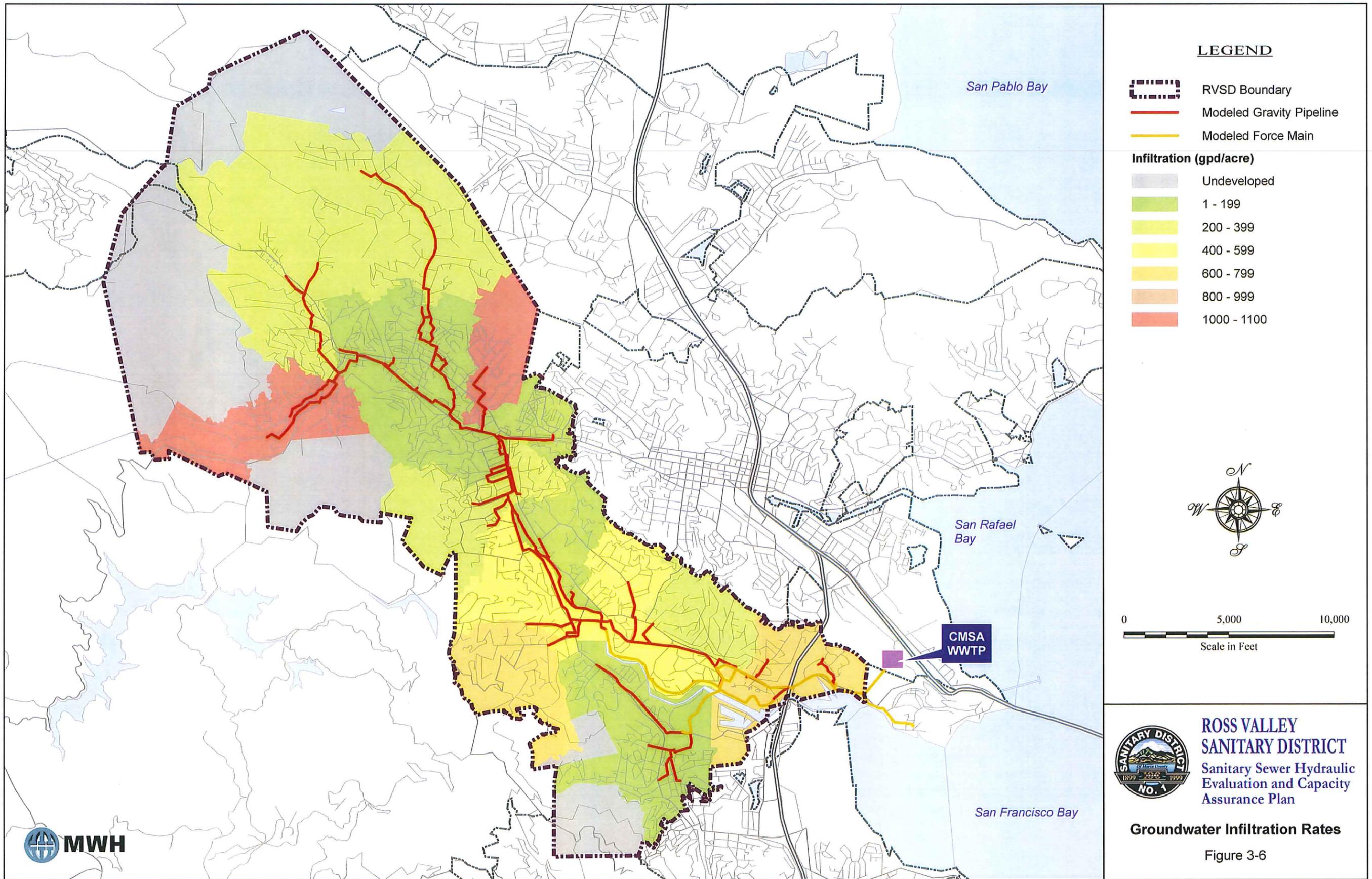
**Communities**

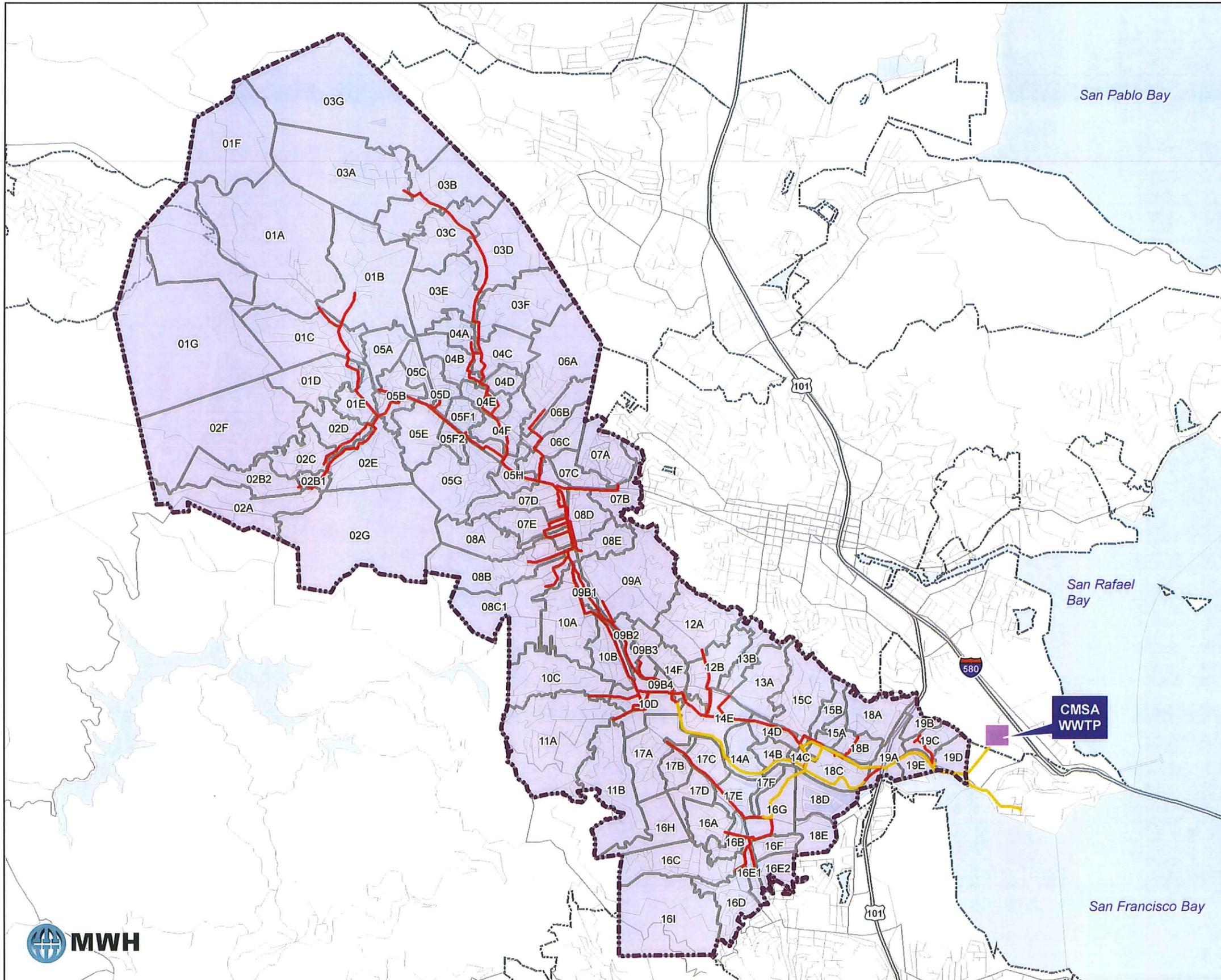
FX	Fairfax
RO	Ross
SA	San Anselmo
KF	Kentfield
KW	Kent-Woodlands
MP	Murray Park
LK	Larkspur
GB	Greenbrae (both Unincorporated County and City of Larkspur regions)
SQ	San Quentin State Prison
SR	San Rafael
CM	Corte Madera

**Pipe Types**

ACP	Asbestos Concrete Pipe
C-900	Plastic (PVC) Pipe (thru 12-inch diameter)
C-905	Plastic (PVC) Pipe (greater than 12-inch diameter)
CLP	Cement Lined Steel Pipe
CI	Cast Iron Pipe
CIPP	Cured in Place Pipe
CMP	Corrugated Metal Pipe
RCP	Reinforced Concrete Pipe
DI	Ductile Iron Pipe
HDPE	High-Density Polyethylene Pipe
STL	Steel Pipe
TEC (Or FRP)	Techite (Fiberglass Reinforced Pipe)
VCP	Vitrified Clay Pipe







**LEGEND**

-  RVSD Boundary
-  Modeled Gravity Pipeline
-  Modeled Force Main
-  Subbasin



0 5,000 10,000  
Scale in Feet



**ROSS VALLEY  
SANITARY DISTRICT**  
Sanitary Sewer Hydraulic  
Evaluation and Capacity  
Assurance Plan

**Model Subbasins**  
Figure 2-1



**10-YEAR**

**RVSD Rolling 10 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Year 1 (2014)</b>															
1	RVSD	SCADA System	SCADA System for PS 10/14/15	PS	Operations	PS				1,455	-			Installation at PS 10, 14, 15	\$ 400,000
2	LK	Hwy 101/Riviera Improvements	Hwy 101/Riviera FM 21/33 Replacement & PS 20-21/31-36 Pump/Flow Meter/Equipment Improvs Design	PS/FM	Rehab	ENG					6			Design engineering for combined CIPs 8a, 10, 22 &24	\$ 410,000
3	RVSD	Cathodic Improvements	FM Cathodic Improvements & Inspections for FM 1/2/10/13/14/37	FM	Rehab	Cathodic				2,000	-			Cathodic protection 6 FMs.	\$ 550,000
4	SA	Red Hill Ave Rehabilitation	Red Hill Ave Rehabilitation Design	GS	Rehab	ENG					6-8			Design Engineering. Replace Pipe.	\$ 50,000
5	KF	Hillside Ave Rehabilitation	Hillside Ave Rehabilitation Design	GS	Rehab	ENG					6-8			Design Engineering. Replace Pipe.	\$ 90,000
6	GB	PS 12 Bon Air/PS 13 Greenbrae & Greenbrae FM	PS 12 Bon Air/PS 13 Greenbrae Mech & Elec Improvs & Greenbrae Force Main Replacement Design	PS/FM	Capacity	ENG					30			Design Study and Engineering for combined CIPs 13 & 17	\$ 1,080,000
7	SA	Upper Butterfield Capacity Improvements	Upper Butterfield Capacity Improvements Design	GS	Capacity	ENG					12-15			Design Engineering. Upsize pipe.	\$ 210,000
8	LK	Magnolia Avenue Trunkline Improvements	Magnolia Avenue Trunkline Improvements Study	TL	Rehab	ENG					10-27			Preliminary engineering study	\$ 90,000
9	FX	Westbrae/Hawthorne Capacity Improvements	Westbrae Trunk Sewer Alignment Study	TL	Rehab	ENG					8-10			Preliminary engineering study	\$ 100,000
10	FX	Westbrae/Hawthorne Capacity Improvements	Westbrae/Hawthorne Capacity Improvements Design	GS	Capacity	ENG					8-10			Design Engineering after alignment study	\$ 110,000
11	SA	Lower Butterfield Capacity Improvements	Lower Butterfield/Meadowcroft/Broadmoor/SFD Capacity Improvements Design	GS	Capacity	ENG					10-12			Design Engineering. Upsize pipe. Evaluate redirecting flows	\$ 320,000
12	RVSD	PS 15/22/23/24/25/37 Improvements	PS 15/22/23/24/25/37 Pump/Flow Meter/Reliability and Safety Improvements	PS	Rehab	PS				3,902	-				\$ 1,073,000
13	LK	Heather Gardens Pipeline Replacement	Heather Gardens Pipeline Replacement Design	GS	Rehab	ENG					6-8			Design Engineering. Upsize and regrade pipe, PS.	\$ 216,000
14	FX	Ross Valley Trunk Sewer Pacheco Ave Culvert Crossing	Ross Valley Trunk Sewer Pacheco Ave Culvert Crossing	TL	Rehab	OC	0.2	1,000			18	C905	4	Trunkline in joint utility vault box with failed storm drain.	\$ 660,000
15	FX	Structural Priority Pipeline Rehabilitation Project	Structural Priority Pipeline Rehabilitation Project 1 (BDR Jan/Feb Project 1, BDR Mar/Apr Project 1)	GS	Rehab	CIPP	1.1	5,890			6	CIPP	43	Structural priority pipe repair based on CCTV findings	\$ 559,000
16	KF/KW	Structural Priority Pipeline Rehabilitation Project	Structural Priority Pipeline Rehabilitation Project 2 (BDR Jan/Feb Project 2, BDR Mar/Apr Project 2)	GS	Rehab	CIPP	1.1	5,755			6	CIPP	38	Structural priority pipe repair based on CCTV findings	\$ 546,000
17	SA	Structural Priority Pipeline Rehabilitation Project	Structural Priority Pipeline Rehabilitation Project 3 (BDR Dec Project 11, BDR Jan/Feb Project 3, BDR Mar/Apr Project 3)	GS	Rehab	CIPP	1.2	6,115			6	CIPP	38	Structural priority pipe repair based on CCTV findings	\$ 580,000
18	RVSD	Infiltration/Inflow Study	Infiltration/Inflow Investigations - Basins 02, 04, 06, 07	GS	Planning	ENG					-			Field investigations and enforcement	\$ 180,000
19	RVSD	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Engineering Study	TL	Planning	ENG					18-42			Preliminary engineering study	\$ 500,000
20	FX	Fairfax Basin 02 Rehabilitation	CIPP/FX/B02/C-RED/Bolinas-Cascade/38,600ft 50%	GS	Rehab	CIPP	3.7	19,300	1,400		4-6	CIPP/HDPE	97	Allowance for pipeburst/manholes due to size/condition	\$ 1,830,000
21	FX	Fairfax Basin 02 Rehabilitation	CIPP/FX/B02/C-RED/Bolinas-Cascade/38,600ft 50%	GS	Rehab	CIPP	3.7	19,300	1,400		4-6	CIPP/HDPE	97	Allowance for pipeburst/manholes due to size/condition	\$ 1,830,000
22	SA	San Anselmo Basin 04 Rehabilitation	CIPP/SA/B04/C-RED/Lower Butterfield/31,500ft 50%	GS	Rehab	CIPP	3.0	15,800	1,700		4-8	CIPP/HDPE	102	Allowance for pipeburst/manholes due to size/condition	\$ 1,654,000
23	SA	San Anselmo Basin 04 Rehabilitation	CIPP/SA/B04/C-RED/Lower Butterfield/31,500ft 50%	GS	Rehab	CIPP	3.0	15,800	1,700		4-8	CIPP/HDPE	102	Allowance for pipeburst/manholes due to size/condition	\$ 1,654,000
<b>TOTAL</b>							<b>16.9</b>	<b>88,960</b>	<b>6,200</b>	<b>7,356</b>	<b>=</b>	<b>102,516</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 14,692,000</b>

**RVSD Rolling 10 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Year 2 (2015)</b>															
1	CIP-4	SA/RO	SFD/Winship Rehabilitation/Capacity Improvements	SFD/Winship Rehabilitation/Capacity Improvements Design	GS	Capacity	ENG				8-12			Design Engineering. Upsize pipe.	\$ 880,000
2	CIP-8a/10/22/24	LK	Hwy 101/Riviera Improvements	Hwy 101/Riviera FM 21/33 Replacement & PS 20-21/31-36 Pump/Flow Meter/Equipment Improvs	PS/FM	Rehab	PS/FM	0.2	1,050		5,371	8	HDPE	CIPs 8a, 10, 22 & 23	\$ 1,823,500
3	CIP-11b	SA	Red Hill Ave Rehabilitation	Red Hill Ave Rehabilitation	GS	Rehab	OC	0.3	1,677	1,200		15	C905		\$ 560,000
4	CIP-12	KF	Hillside Ave Rehabilitation	Hillside Ave Rehabilitation	GS	Rehab	OC	0.7	3,489	2,490		8	C900		\$ 1,164,000
5	CIP-13*/17	GB	PS 12 Bon Air/PS 13 Greenbrae & Greenbrae FM	PS 12 Bon Air/PS 13 Greenbrae Mech & Elec Improvs & Greenbrae Force Main Replacement 50%	FM	Rehab	SL	0.6	2,900			30	HDPE	2,900 ft of 30-inch FM	\$ 2,000,000
6	CIP-14	SA	Upper Butterfield Capacity Improvements	Upper Butterfield Capacity Improvements	GS	Capacity	PB	0.7	3,836	2,740		15	HDPE	18	\$ 1,536,000
7	CIP-15b	FX	Westbrae/Hawthorne Capacity Improvements	Westbrae/Hawthorne Capacity Improvements	GS	Capacity	OC	0.4	2,000	910		8	C900	8 Also needs rehab. Evaluate realignment.	\$ 786,000
8	CIP-16b	LK	Magnolia Avenue Trunkline Improvements	Magnolia Avenue Trunkline Improvements Design	TL	Rehab	ENG					10-27		Engineering design	\$ 330,000
9	CIP-23*	LK	PS 30 Heather Gardens Pump Station Replacement	PS 30 Heather Gardens Pump Station Replacement	PS	Capacity	PS				440	-		CIP 23 only. CIP 22/24 combined with 8a.	\$ 121,000
10	TEC	RVSD	Techite Pipe Replacement	Preliminary Engineering for Techite Pipe Replacement	TL	Rehab	ENG					24-36			\$ 75,000
11	VLP	GB	Via La Paz Sewer Improvements	Via La Paz Sewer Improvements	GS	Rehab	OC	0.3	1,500	2,140		8	HDPE	10 Evaluate realignment, above-ground pipe in slide area.	\$ 674,000
12	WOOD	SA	Woodside Drive Sewer Improvements	Woodside Drive Sewer Improvements Design	GS	Rehab	ENG					8		Evaluate realignment. Design Engineering.	\$ 170,000
13	STR-4	RVSD	Structural Priority Pipeline Rehabilitation Project	Structural Priority Pipeline Rehabilitation Project 4	GS	Rehab	CIPP	2.0	10,560			6-8	CIPP	Structural priority pipe repair based on CCTV findings	\$ 1,001,000
14	I/I	RVSD	Infiltration/Inflow Study	Infiltration/Inflow Investigations - Basins 11 - 17	GS	Planning	ENG					-		Field investigations and enforcement	\$ 250,000
15	ALH	LK	Ward St and Magnolia Ave Sewer Improvements	Ward St and Magnolia Ave Sewer Improvements	GS	Realign	OC	0.1	400	290		10	C900	3 American Legion Hall	\$ 146,000
16	SH-L-03	SH	Sleepy Hollow Lower Basin 03 Rehabilitation	CIPP/SH/B03-4/C-RED/Lower SH Creek/12,890ft	GS	Rehab	CIPP	2.4	12,900	900		4-12	CIPP/HDPE	69 Allowance for pipeburst/manholes due to size/condition	\$ 1,166,000
17	SA-07-1	SA	San Anselmo Basin 07 Rehabilitation	CIPP/SA/B07/C-ORG/San Anselmo/44,000ft 50%	GS	Rehab	CIPP	4.2	22,000	1,600		4-8	CIPP/HDPE	60 Allowance for pipeburst/manholes due to size/condition	\$ 1,989,000
<b>TOTAL</b>							<b>11.8</b>	<b>62,312</b>	<b>12,270</b>	<b>5,811</b>	<b>=</b>	<b>80,393</b>	<b>feet</b> (Actual + Laterals + In Lieu)	<b>\$ 14,671,500</b>	

**RVSD Rolling 10 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 3 (2016)</b>																
1	CIP-4	SA/RO	SFD/Winship Rehabilitation/Capacity Improvements	SFD/Winship Rehabilitation/Capacity Improvements Phase I	GS	Capacity	PB/MT	0.9	4,850	3,460		8-12	C900		Phase I	\$ 1,464,000
2	CIP-6	SA/RO	Sequoia Park/Tozzi Creek Rehabilitation	Sequoia Park/Tozzi Creek Rehabilitation Pre-Design	GS	Rehab	ENG					6-8			Preliminary Engineering. Replace pipe.	\$ 80,000
3	CIP-13*/17	GB	PS 12 Bon Air/PS 13 Greenbrae & Greenbrae FM	PS 12 Bon Air/PS 13 Greenbrae Mech & Elec Improvs & Greenbrae Force Main Replacement 50%	PS	Rehab	PS					8,364	-		PS 12/13 including SCADA	\$ 2,300,000
4	CIP-16b	LK	Magnolia Avenue Trunkline Improvements	Magnolia Avenue Trunkline Improvements 50%	TL	Rehab	OC	0.4	2,190			10-27	C905			\$ 1,502,000
5	CIP-20	SA	Lower Butterfield Capacity Improvements	Lower Butterfield/Meadowcroft/Broadmoor/SFD Capacity Improvements	GS	Capacity	PB/MT/OC	0.7	3,493			15	C905			\$ 1,922,000
6	HG	LK	Heather Gardens Pipeline Improvements	Heather Gardens Pipeline Improvements	GS	Capacity	OC	0.7	3,800	2,710		10	C900	26	Upsize and regrade to PS.	\$ 864,000
7	WILLOW	SA	Willow Way Siphon Sewer Improvements	Willow Way Siphon Sewer Improvements	GS	Rehab	OC	0.2	1,000	710		8	HDPE		Evaluate combining with CIP-20	\$ 449,000
8	STR-5	RVSD	Structural Priority Pipeline Rehabilitation Project	Structural Priority Pipeline Rehabilitation Project 5	GS	Rehab	CIPP	2.0	10,560			6-8	CIPP		Structural priority pipe repair based on CCTV findings	\$ 1,001,000
9	WOOD	SA	Woodside Drive Sewer Improvements	Woodside Drive Sewer Improvements	GS	Rehab	OC	0.5	2,500	1,790		8	C900	10		\$ 912,000
10	I/I	RVSD	Infiltration/Inflow Study	Infiltration/Inflow Investigations - Basins 03, 05, 18, 19, 20	GS	Planning	ENG					-			Field investigations and enforcement	\$ 230,000
11	SA-06	SA	San Anselmo Basin 06 Rehabilitation	CIPP/SA/B06/C-RED/Short Ranch/8,990ft	GS	Rehab	CIPP	1.9	10,130	810		4-12	CIPP/HDPE	51	Allowance for pipeburst/manholes due to size/condition	\$ 956,000
12	SA-02-2	SA	San Anselmo Basin 07 Rehabilitation	CIPP/SA/B07/C-ORG/San Anselmo/44,000ft 50%	GS	Rehab	CIPP	4.2	22,000	1,600		4-8	CIPP/HDPE	60	Allowance for pipeburst/manholes due to size/condition	\$ 1,989,000
13	SH-U-03	SH	Sleepy Hollow Upper Basin 03 Rehabilitation	CIPP/SH/B03/C-GRN/Upper SH Creek/13,610ft	GS	Rehab	CIPP	2.6	13,700	1,000		4-10	CIPP/HDPE	64	Allowance for pipeburst/manholes due to size/condition	\$ 1,239,000
<b>TOTAL</b>							<b>14.1</b>	<b>74,223</b>	<b>12,080</b>	<b>8,364</b>	<b>=</b>	<b>94,667</b>	<b>feet</b>	<b>(Actual + Laterals + In Lieu)</b>	<b>\$ 14,908,000</b>	

**RVSD Rolling 10 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Year 4 (2017)</b>															
1	CIP-4	SA/RO	SFD/Winship Rehabilitation/Capacity Improvements	SFD/Winship Rehabilitation/Capacity Improvements Phase II	GS	Capacity	PB/MT	1.8	9,700	6,930		8-12	C900	Phase II	\$ 2,928,000
2	CIP-6	SA/RO	Sequoia Park/Tozzi Creek Rehabilitation	Sequoia Park/Tozzi Creek Rehabilitation Design	GS	Rehab	ENG					6-8		Design Engineering. Replace Pipe.	\$ 780,000
3	CIP-16a	KF	Laurel Grove/McAllister Capacity Improvements	Laurel Grove/McAllister Capacity Improvements Design	GS	Capacity	ENG					10-15		Design Engineering. Reevaluate after rehab Basin 12.	\$ 130,000
4	CIP-11a	SA	Miracle Mile Capacity Improvements	Miracle Mile Capacity Improvements 14%	GS	Capacity	ENG					12		Design engineering. Reevaluate after rehab Basin 07.	\$ 280,000
5	CIP-16b	LK	Magnolia Avenue Trunkline Improvements	Magnolia Avenue Trunkline Improvements 50%	TL	Rehab	OC	0.4	2,185			10-27	C905		\$ 1,499,000
6	I/I	RVSD	Infiltration/Inflow Study	Infiltration/Inflow Investigations - Basins 01, 08, 09, 10	GS	Planning	ENG					-		Field investigations and enforcement	\$ 200,000
7	VLY-GW	FX/KW	Valley Road and Greenwood Way Improvements	Valley Road FX and Greenwood Way KW Improvements	GS	Rehab	OC	0.4	2,200	3,140		8	HDPE	12 Evaluate realignment, above-ground pipe in slide area.	\$ 988,000
8	U-SEQ	SA	Upper Sequoia Road Sewer Improvements	Upper Sequoia Road Sewer Improvements	GS	Rehab	OC	0.3	1,300	930		8	C900	11 Realignment into road.	\$ 475,000
9	KF-12	KF	Kentfield Basin 12 Rehabilitation	CIPP/KF/B12/C-ORG/Laurel Grove/31,200ft	GS	Rehab	CIPP	5.9	31,200	2,200		4-12	CIPP/HDPE	156 Allowance for pipeburst/manholes due to size/condition	\$ 2,820,000
10	KW-11-1	KW	Kent Woodlands Basin 11 Rehabilitation	CIPP/KW/B11/C-ORG/Woodland-Evergreen/48,900ft 50%, including CIP 21d Eliseo	GS	Rehab	CIPP	4.6	24,450	1,700		4-8	CIPP/HDPE	139 Include CIP 21d Eliseo in this project. □ Allowance for pipeburst/manholes due to size/condition	\$ 2,210,000
11	KW-11-2	KW	Kent Woodlands Basin 11 Rehabilitation	CIPP/KW/B11/C-ORG/Woodland-Evergreen/48,900ft 50%	GS	Rehab	CIPP	4.6	24,450	1,700		4-8	CIPP/HDPE	139 Allowance for pipeburst/manholes due to size/condition	\$ 2,210,000
<b>TOTAL</b>							<b>18.1</b>	<b>95,485</b>	<b>16,600</b>		<b>=</b>	<b>112,085</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 14,520,000</b>

**RVSD Rolling 10 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Year 5 (2018)</b>															
1	CIP-4	SA/RO	SFD/Winship Rehabilitation/Capacity Improvements	SFD/Winship Rehabilitation/Capacity Improvements Phase III	GS	Capacity	PB/MT	0.9	4,850	3,460		8-12	C900	Phase III	\$ 1,464,000
2	CIP-6	SA/RO	Sequoia Park/Tozzi Creek Rehabilitation	Sequoia Park/Tozzi Creek Rehabilitation 50%	GS	Rehab	OC	1.0	5,500	3,930		8	C900	Sequoia, Rd, Olive Ave, Park Dr	\$ 3,086,000
3	CIP-11a	SA	Miracle Mile Capacity Improvements	Miracle Mile Capacity Improvements 86%	GS	Capacity	PB/MT	0.6	3,250			15	HDPE	Reevaluate after rehab Basin 07.	\$ 1,691,000
4	CIP-16a	KF	Laurel Grove/McAllister Capacity Improvements	Laurel Grove/McAllister Capacity Improvements	GS	Capacity	PB	0.4	2,256	1,610		10-15	C905	Reevaluate after rehab Basin 12.	\$ 921,000
5	CIP-21c	GB	Manor Easement Capacity Improvements	Manor Easement Capacity Improvements	GS	Capacity	PB	0.2	864	120		15	C905	Design and construction.	\$ 373,000
6	I/I	RVSD	Infiltration/Inflow Study	Infiltration/Inflow Report	GS	Planning	ENG					-		Recommendations	\$ 75,000
7	GB-13	GB	Greenbrae Basin 13 Rehabilitation	CIPP/GB/B13/C-RED/GB Unincorporated/27,700ft	GS	Rehab	CIPP	5.3	27,700	2,000		4-6	CIPP/HDPE	178 Allowance for pipeburst/manholes due to size/condition	\$ 2,504,000
8	LK-16	LK	Larkspur Basin 16 Rehabilitation	CIPP/LK/B16/C-RED/Larkspur Creek/17,600ft	GS	Rehab	CIPP	3.3	17,600	1,300		4-8	CIPP/HDPE	159 Allowance for pipeburst/manholes due to size/condition	\$ 1,591,000
9	LK-17-1	LK	Larkspur Basin 17 Rehabilitation	CIPP/LK/B17/C-ORG/Northern Larkspur/50,000ft 50%	GS	Rehab	CIPP	4.7	25,000	1,800		4-8	CIPP/HDPE	150 Allowance for pipeburst/manholes due to size/condition	\$ 2,260,000
10	LK-19	LK	Larkspur Basin 19 Rehabilitation	CIPP/LK/B19/C-ORG/Landing/4,660ft	GS	Rehab	CIPP	0.9	4,660	300		6-10	CIPP	27 Allowance for pipeburst/manholes due to size/condition	\$ 422,000
<b>TOTAL</b>							<b>17.4</b>	<b>91,680</b>	<b>14,520</b>		<b>=</b>	<b>106,200</b>	<b>feet (Actual + Laterals + In Lieu)</b>	<b>\$ 14,387,000</b>	

**RVSD Rolling 10 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 6 (2019)</b>																
1	CIP-6	SA/RO	Sequoia Park/Tozzi Creek Rehabilitation	Sequoia Park/Tozzi Creek Rehabilitation 50%	GS	Rehab	OC	1.0	5,500	3,930		8	C900		Sequoia, Rd, Olive Ave, Park Dr	\$ 3,086,000
2	CIP-19	SA	Sonoma/Nokomis Capacity Improvements	Sonoma/Nokomis Capacity Improvements	GS	Capacity	OC/MT	0.5	2,765	1,050		15	C905		Design & construction. Reevaluate after rehab Basin 06.	\$ 1,968,000
3	RVTL	RVSD	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Design 30%	TL	Rehab	ENG					18-42			Engineering design	\$ 600,000
4	TEC	RVSD	Techite Pipe Replacement	Techite Pipe Replacement Project	TL	Rehab	OC	0.4	2,300			24-36	C905	10	Design engineering and construction.	\$ 2,600,000
5	SHECAP	RVSD	SHECAP Update	SHECAP Update - Rehabilitated Basins	PLAN	Planning	ENG					-			Flow monitoring, model update, project evaluation.	\$ 300,000
6	HV	LK	Hillview Sewer Improvements	Hillview Sewer Improvements Design	GS	Rehab	ENG					8			Replace due to subsidence	\$ 500,000
7	LK-17-2	LK	Larkspur Basin 17 Rehabilitation	CIPP/LK/B17/C-ORG/Northern Larkspur/50,000ft 50%	GS	Rehab	CIPP	4.7	25,000	1,800		4-8	CIPP/HDPE	150	Allowance for pipeburst/manholes due to size/condition	\$ 2,260,000
8	GB-15	GB	Greenbrae Basin 15 Rehabilitation	CIPP/GB/B15/C-ORG/LK Greenbrae/39,000ft	GS	Rehab	CIPP	7.4	39,000	2,800		4-8	CIPP/HDPE	208	Allowance for pipeburst/manholes due to size/condition	\$ 3,525,000
<b>TOTAL</b>							<b>14.1</b>	<b>74,565</b>	<b>9,580</b>		<b>=</b>	<b>84,145</b>	<b>feet</b>	<b>(Actual + Laterals + In Lieu)</b>	<b>\$ 14,839,000</b>	

**RVSD Rolling 10 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 7 (2020)</b>																
1	CIP-18	FX	Spruce/Park/Merwin/Broadway Capacity Improvements	Spruce/Park/Merwin/Broadway Capacity Improvements	GS	Capacity	PB/OC/MT	0.5	2,405	180		15	C905		Design and construction.	\$ 1,930,000
2	CIP-21a	KF	SFD/Berry Capacity Improvements	SFD/Berry Capacity Improvements	GS	Capacity	PB	0.2	1,100	790		15	HDPE		Reevaluate after rehab Basin 09.	\$ 520,000
3	CIP-21b	SA	The Alameda/Brookmead Capacity Improvements	The Alameda/Brookmead Capacity Improvements	GS	Capacity	OC/PB	0.3	1,670			15	C905		Reevaluate after rehab Basins 03 & 04.	\$ 843,000
4	RVTL	RVSD	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Design 30%	TL	Rehab	ENG					18-42			Engineering design	\$ 600,000
5	HV	LK	Hillview Sewer Improvements	Hillview Sewer Improvements	GS	Rehab	OC	1.5	7,630	5,450		8-10	C900	44	"College streets"	\$ 2,783,000
6	LC-CM	GB	La Cuesta/Corte Morada Pipeline Improvements	La Cuesta/Corte Morada Pipeline Improvements	GS	Capacity	OC	0.4	2,100	1,500		8-12	C900		Includes engineering	\$ 700,000
7	GB-18	GB	Greenbrae Basin 18 Rehabilitation	CIPP/GB/B18/C-ORG/GB Larkspur/40,000ft	GS	Rehab	CIPP	7.6	40,000	2,900		4-12	CIPP/HDPE	135	Allowance for pipeburst/manholes due to size/condition	\$ 3,616,000
8	SA-08	SA	San Anselmo Basin 08 Rehabilitation	CIPP/SA/B08/C-ORG/San Anselmo/18,700ft	GS	Rehab	CIPP	3.5	18,700	2,000		4-10	CIPP/HDPE	128	Allowance for pipeburst/manholes due to size/condition	\$ 1,875,000
9	KW-10	KW	Kent Woodlands Basin 10 Rehabilitation	CIPP/KW/B10/C-ORG/Goodhill/18,800 ft	GS	Rehab	CIPP	3.6	18,800	1,300		4-6	CIPP/HDPE	85	Allowance for pipeburst/manholes due to size/condition	\$ 1,700,000
<b>TOTAL</b>							<b>17.5</b>	<b>92,405</b>	<b>14,120</b>		<b>=</b>	<b>106,525</b>	<b>feet</b>	<b>(Actual + Laterals + In Lieu)</b>	<b>\$ 14,567,000</b>	

**RVSD Rolling 10 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Year 8 (2021)</b>															
1	RVTL	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Design 40%	TL	Rehab	ENG					18-42			Engineering design	\$ 800,000
2	COND	Condition Assessment	Large Diameter Sewer Structural Condition Assessment	PLAN	Planning	ENG					12-42				\$ 750,000
3	RO-10	Ross Basin 10 Rehabilitation	CIPP/RO/B10/C-ORG/Lagunitas/22,300 ft	GS	Rehab	CIPP	4.2	22,300	2,400		4-8	CIPP/HDPE	91	Allowance for pipeburst/manholes due to size/condition	\$ 2,236,000
4	GB-14	Greenbrae Basin 14 Rehabilitation	CIPP/GB/B14/C-ORG/Greenbrae-Kentfield/33,400ft	GS	Rehab	CIPP	6.3	33,400	2,400		4-8	CIPP/HDPE	145	Allowance for pipeburst/manholes due to size/condition	\$ 3,019,000
5	RO-08	Ross Basin 08 Rehabilitation	CIPP/RO/B08/C-ORG/Ross/10,200ft	GS	Rehab	CIPP	1.9	10,200	1,100		4-10	CIPP/HDPE	47	Allowance for pipeburst/manholes due to size/condition	\$ 1,023,000
6	FX-01-1	Fairfax Basin 01 Rehabilitation	CIPP/FX/B01/C-GRN/Upper Fairfax/65,800ft 50%	GS	Rehab	CIPP	6.2	32,900	2,400		4-12	CIPP/HDPE	172	Allowance for pipeburst/manholes due to size/condition	\$ 2,974,000
7	FX-01-2	Fairfax Basin 01 Rehabilitation	CIPP/FX/B01/C-GRN/Upper Fairfax/65,800ft 50%	GS	Rehab	CIPP	6.2	32,900	2,400		4-12	CIPP/HDPE	172	Allowance for pipeburst/manholes due to size/condition	\$ 2,974,000
8	SHECAP	SHECAP Update	SHECAP Update - Rehabilitated Basins	PLAN	Planning	ENG					-			Flow monitoring, model update, project evaluation.	\$ 300,000
<b>TOTAL</b>							<b>24.9</b>	<b>131,700</b>	<b>10,700</b>		<b>=</b>	<b>142,400</b>	<b>feet</b>	<b>(Actual + Laterals + In Lieu)</b>	<b>\$ 14,076,000</b>

**RVSD Rolling 10 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 9 (2022)</b>																
1	RVTL	KF	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer - Corte Madera Creek 60%	TL	Rehab	OC	0.7	3,420			42	HDPE	9		\$ 6,840,000
2	RVTL	KF	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Engineering Services During Construction	TL	Rehab	ENG					18-42				\$ 2,052,000
3	FX-05	FX	Fairfax Basin 05 Rehabilitation	CIPP/FX/B05/C-GRN/Lower Fairfax/38,300ft	GS	Rehab	CIPP	7.3	38,300	2,700		4-12	CIPP/HDPE	200	Allowance for pipeburst/manholes due to size/condition	\$ 3,462,000
4	SA-05-2	SA	San Anselmo Basin 05 Rehabilitation	CIPP/SA/B05/C-GRN/San Anselmo/44,340ft 50%	GS	Rehab	CIPP	4.2	22,150	1,600		4-12	CIPP/HDPE	130	Allowance for pipeburst/manholes due to size/condition	\$ 2,002,000
5	SSRMP	RVSD	SSRMP Update	SSRMP Update	PLAN	Planning	ENG					-		Hydraulic, structural, O&M condition, CIP update.	\$ 250,000	
<b>TOTAL</b>							<b>12.1</b>	<b>63,870</b>	<b>4,300</b>		<b>=</b>	<b>68,170</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 14,606,000</b>	

**RVSD Rolling 10 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 10 (2023)</b>																
1	RVTL	KF/RO	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer - Corte Madera Creek 40%	TL	Rehab	OC	0.4	2,260			42	HDPE	9		\$ 4,520,000
2	RVTL	KF/RO	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Engineering Services During Construction	TL	Rehab	ENG					18-42				\$ 1,356,000
3	RO-09	RO	Ross Basin 09 Rehabilitation	CIPP/RO/B09&20/C-GRN/Ross/24,200ft	GS	Rehab	CIPP	4.6	24,200	1,700		4-12	CIPP	115	Allowance for pipeburst/manholes due to size/condition	\$ 2,188,000
4	SA-05-1	SA	San Anselmo Basin 05 Rehabilitation	CIPP/SA/B05/C-GRN/San Anselmo/44,340ft 50%	GS	Rehab	CIPP	4.2	22,150	1,600		4-12	CIPP/HDPE	130	Allowance for pipeburst/manholes due to size/condition	\$ 2,002,000
5	SH-03-1	SH	Sleepy Hollow Basin 03 Rehabilitation	CIPP/SH/B03/C-GRN/Sleepy Hollow/59,600ft 50%	GS	Rehab	CIPP	5.6	29,800	2,100		4-12	CIPP/HDPE	152	Allowance for pipeburst/manholes due to size/condition	\$ 2,694,000
6	SH-03-2	SH	Sleepy Hollow Basin 03 Rehabilitation	CIPP/SH/B03/C-GRN/Sleepy Hollow/59,600ft 50%	GS	Rehab	CIPP	5.6	29,800	2,100		4-12	CIPP/HDPE	152	Allowance for pipeburst/manholes due to size/condition	\$ 2,694,000
<b>TOTAL</b>							<b>20.5</b>	<b>108,210</b>	<b>7,500</b>		<b>=</b>	<b>115,710</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 15,454,000</b>	

**15-YEAR**

**RVSD Rolling 15 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Year 1 (2014)</b>															
1	SCADA*	RVSD	SCADA System	SCADA System for PS 10	PS	Operations	PS				364	-		Installation at PS 10	\$ 100,000
2	SCADA*	RVSD	SCADA System	SCADA System for PS 15	PS	Operations	PS				545			Installation at PS 15	\$ 150,000
3	CIP-8a/10/22/24	LK	Hwy 101/Riviera Improvements	Hwy 101/Riviera FM 21/33 Replacement & PS 20-21/31-36 Pump/Flow Meter/Equipment Improvs Design	PS/FM	Rehab	ENG				6			Design engineering for combined CIPs 8a, 10, 22 & 24	\$ 410,000
4	CIP-11b	SA	Red Hill Ave Rehabilitation	Red Hill Ave Rehabilitation Design	GS	Rehab	ENG				6-8			Design Engineering. Replace Pipe.	\$ 50,000
5	CIP-13*/17	GB	PS 12 Bon Air/PS 13 Greenbrae & Greenbrae FM	PS 12 Bon Air/PS 13 Greenbrae Mech & Elec Improvs & Greenbrae Force Main Replacement Design	PS/FM	Capacity	ENG				30			Design study & engineering for combined CIPs 13 & 17	\$ 1,080,000
6	CIP-14	SA	Upper Butterfield Capacity Improvements	Upper Butterfield Capacity Improvements Design	GS	Capacity	ENG				12-15			Design Engineering. Upsize pipe.	\$ 210,000
7	CIP-15b	FX	Westbrae/Hawthorne Capacity Improvements	Westbrae Trunk Sewer Alignment Study	TL	Rehab	ENG				8-10			Preliminary engineering study	\$ 100,000
8	CIP-15b	FX	Westbrae/Hawthorne Capacity Improvements	Westbrae/Hawthorne Capacity Improvements Design	GS	Capacity	ENG				8-10			Design Engineering after alignment study	\$ 110,000
9	CIP-16b	LK	Magnolia Avenue Trunkline Improvements	Magnolia Avenue Trunkline Improvements Study	TL	Rehab	ENG				10-27			Preliminary engineering study	\$ 90,000
10	TEC	RVSD	Techite Pipe Replacement	Preliminary Engineering for Techite Pipe Replacement	TL	Rehab	ENG				24-36				\$ 75,000
11	STR-1	FX	Structural Priority Pipeline Rehabilitation Project	Structural Priority Pipeline Rehabilitation Project 1 (BDR Jan/Feb Project 1, BDR Mar/Apr Project 1)	GS	Rehab	CIPP	1.1	5,755		6-8	CIPP	38	Structural priority pipe repair based on CCTV findings	\$ 546,000
12	STR-2	KF/KW	Structural Priority Pipeline Rehabilitation Project	Structural Priority Pipeline Rehabilitation Project 2 (BDR Jan/Feb Project 2, BDR Mar/Apr Project 2)	GS	Rehab	CIPP	1.2	6,115		6-8	CIPP	38	Structural priority pipe repair based on CCTV findings	\$ 580,000
13	STR-3	SA	Structural Priority Pipeline Rehabilitation Project	Structural Priority Pipeline Rehabilitation Project 3 (BDR Dec Project 11, BDR Jan/Feb Project 3, BDR Mar/Apr Project 3)	GS	Rehab	CIPP	1.1	5,890		6-8	CIPP	43	Structural priority pipe repair based on CCTV findings	\$ 559,000
14	I/I	RVSD	Infiltration/Inflow Study	Infiltration/Inflow Investigations - Basins 02, 04, 06, 07	GS	Planning	ENG				-			Field investigations and enforcement	\$ 180,000
15	FX-02-1	FX	Fairfax Basin 02 Rehabilitation	CIPP/FX/B02/C-RED/Bolinas-Cascade/38,600ft 50%	GS	Rehab	CIPP	3.7	19,300	1,400	4-6	CIPP/HDPE	97	Allowance for pipeburst/manholes due to size/condition	\$ 1,830,000
16	FX-02-2	FX	Fairfax Basin 02 Rehabilitation	CIPP/FX/B02/C-RED/Bolinas-Cascade/38,600ft 50%	GS	Rehab	CIPP	3.7	19,300	1,400	4-6	CIPP/HDPE	97	Allowance for pipeburst/manholes due to size/condition	\$ 1,830,000
17	SA-04-1	SA	San Anselmo Basin 04 Rehabilitation	CIPP/SA/B04/C-RED/Lower Butterfield/31,500ft 50%	GS	Rehab	CIPP	3.0	15,800	1,700	4-8	CIPP/HDPE	102	Allowance for pipeburst/manholes due to size/condition	\$ 1,654,000
18	SA-04-2	SA	San Anselmo Basin 04 Rehabilitation	CIPP/SA/B04/C-RED/Lower Butterfield/31,500ft 50%	GS	Rehab	CIPP	3.0	15,800	1,700	4-8	CIPP/HDPE	102	Allowance for pipeburst/manholes due to size/condition	\$ 1,654,000
<b>TOTAL</b>							<b>16.7</b>	<b>87,960</b>	<b>6,200</b>	<b>909</b>	<b>=</b>	<b>95,069</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 11,208,000</b>

**RVSD Rolling 15 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Year 2 (2015)</b>															
1	RVSD	SCADA System	SCADA System for PS 14	PS	Operations	PS				545				Installation at PS 14	\$ 150,000
2	LK	Hwy 101/Riviera Improvements	Hwy 101/Riviera FM 21/33 Replacement & PS 20-21/31-36 Pump/Flow Meter/Equipment Improvs	PS/FM	Rehab	PS/FM	0.2	1,050		5,371	8	HDPE		CIPs 8a, 10, 22 & 23	\$ 1,823,500
3	SA	Red Hill Ave Rehabilitation	Red Hill Ave Rehabilitation	GS	Rehab	OC	0.3	1,677	1,200		15	C905			\$ 560,000
4	KF	Hillside Ave Rehabilitation	Hillside Ave Rehabilitation Design	GS	Rehab	ENG					6-8			Design Engineering. Replace Pipe.	\$ 90,000
5	GB	PS 12 Bon Air/PS 13 Greenbrae & Greenbrae FM	PS 12 Bon Air/PS 13 Greenbrae Mech & Elec Improvs & Greenbrae Force Main Replacement 50%	FM	Rehab	SL	0.6	2,900			30	HDPE		2,900 ft of 30-inch FM	\$ 2,000,000
6	FX	Westbrae/Hawthorne Capacity Improvements	Westbrae/Hawthorne Capacity Improvements	GS	Capacity	OC	0.4	2,000	910		8	C900	8	Also needs rehab. Evaluate realignment.	\$ 786,000
7	SA	Lower Butterfield Capacity Improvements	Lower Butterfield/Meadowcroft/Broadmoor/SFD Capacity Improvements Design	GS	Capacity	ENG					10-12			Design Engineering. Upsize pipe. Evaluate redirecting flows from Willow Way siphon within this project.	\$ 320,000
8	LK	Heather Gardens Pipeline Replacement	Heather Gardens Pipeline Replacement Design	GS	Rehab	ENG					6-8			Design Engineering. Upsize and regrade pipe, PS.	\$ 216,000
9	RVSD	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Engineering Study	TL	Planning	ENG					18-42			Preliminary engineering study	\$ 500,000
10	RVSD	PS 15/22/23/24/25/37 Improvements	PS 15/22/23/24/25/37 Pump/Flow Meter/Reliability and Safety Improvements	PS	Rehab	PS				3,902	-				\$ 1,073,000
11	RVSD	Structural Priority Pipeline Rehabilitation Project	Structural Priority Pipeline Rehabilitation Project 4	GS	Rehab	CIPP	2.0	10,560			6-8	CIPP	20	Structural priority pipe repair based on CCTV findings	\$ 1,001,000
12	RVSD	Infiltration/Inflow Study	Infiltration/Inflow Investigations - Basins 11 - 17	GS	Planning	ENG					-			Field investigations and enforcement	\$ 250,000
13	SA	Woodside Drive Sewer Improvements	Woodside Drive Sewer Improvements Design	GS	Rehab	ENG					8			Evaluate realignment. Design Engineering.	\$ 170,000
14	GB	Greenbrae Basin 13 Rehabilitation	CIPP/GB/B13/C-RED/GB Unincorporated/27,700ft	GS	Rehab	CIPP	5.3	27,700	2,000		4-6	CIPP/HDPE	178	Allowance for pipeburst/manholes due to size/condition	\$ 2,504,000
<b>TOTAL</b>							<b>8.7</b>	<b>45,887</b>	<b>4,110</b>	<b>9,818</b>	<b>=</b>	<b>59,815</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 11,443,500</b>

**RVSD Rolling 15 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Year 3 (2016)</b>															
1	CIP-4	SA/RO	SFD/Winship Rehabilitation/Capacity Improvements	SFD/Winship Rehabilitation/Capacity Improvements Design	GS	Capacity	ENG				8-12			Design Engineering. Upsize pipe.	\$ 880,000
2	CIP-6	SA/RO	Sequoia Park/Tozzi Creek Rehabilitation	Sequoia Park/Tozzi Creek Rehabilitation Pre-Design	GS	Rehab	ENG				6-8			Preliminary Engineering. Replace pipe.	\$ 80,000
3	CIP-12	KF	Hillside Ave Rehabilitation	Hillside Ave Rehabilitation	GS	Rehab	OC	0.7	3,489	2,490	8	C900			\$ 1,164,000
4	CIP-13*/17	GB	PS 12 Bon Air/PS 13 Greenbrae & Greenbrae FM	PS 12 Bon Air/PS 13 Greenbrae Mech & Elec Improvs & Greenbrae Force Main Replacement 50%	PS	Rehab	PS			8,364	-			PS 12/13 including SCADA	\$ 2,300,000
5	CIP-14	SA	Upper Butterfield Capacity Improvements	Upper Butterfield Capacity Improvements	GS	Capacity	PB	0.7	3,836	2,740	15	HDPE	18		\$ 1,536,000
6	CIP-16b	LK	Magnolia Avenue Trunkline Improvements	Magnolia Avenue Trunkline Improvements Design	TL	Rehab	ENG				10-27			Engineering design	\$ 330,000
7	CIP-20	SA	Lower Butterfield Capacity Improvements	Lower Butterfield/Meadowcroft/Broadmoor/SFD Capacity Improvements	GS	Capacity	PB/MT/OC	0.7	3,493		15	C905			\$ 1,922,000
8	CIP-23*	LK	PS 30 Heather Gardens Pump Station Replacement	PS 30 Heather Gardens Pump Station Replacement	PS	Capacity	PS			440	-			CIP 23 only. CIP 22/24 combined with 8a.	\$ 121,000
9	RVTL	FX	Ross Valley Trunk Sewer Pacheco Ave Culvert Crossing	Ross Valley Trunk Sewer Pacheco Ave Culvert Crossing	TL	Rehab	OC	0.2	1,000		18	C905	4	Trunkline in joint utility vault box with failed storm drain.	\$ 660,000
10	WILLOW	SA	Willow Way Siphon Sewer Improvements	Willow Way Siphon Sewer Improvements	GS	Rehab	OC	0.2	1,000	710	8	HDPE		Evaluate combining with CIP-20	\$ 449,000
11	STR-5	RVSD	Structural Priority Pipeline Rehabilitation Project	Structural Priority Pipeline Rehabilitation Project 5	GS	Rehab	CIPP	2.0	10,560		6-8	CIPP	20	Structural priority pipe repair based on CCTV findings	\$ 1,001,000
12	SH-L-03	SH	Sleepy Hollow Lower Basin 03 Rehabilitation	CIPP/SH/B03-4/C-RED/Lower SH Creek/12,890ft	GS	Rehab	CIPP	2.4	12,900	900	4-12	CIPP/HDPE	69	Allowance for pipeburst/manholes due to size/condition	\$ 1,166,000
13	I/I	RVSD	Infiltration/Inflow Study	Infiltration/Inflow Investigations - Basins 03, 05, 18, 19, 20	GS	Planning	ENG				-			Field investigations and enforcement	\$ 230,000
<b>TOTAL</b>							<b>6.9</b>	<b>36,278</b>	<b>6,840</b>	<b>8,804</b>	<b>=</b>	<b>51,922</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 11,839,000</b>

**RVSD Rolling 15 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 4 (2017)</b>																
1	CIP-4	SA/RO	SFD/Winship Rehabilitation/Capacity Improvements	SFD/Winship Rehabilitation/Capacity Improvements Phase I	GS	Capacity	PB/MT	0.9	4,850	3,460		8-12	C900		Phase I	\$ 1,464,000
2	CIP-9*	RVSD	Cathodic Improvements	FM Cathodic Improvements & Inspections for FM 1/2/10/13/14/37	FM	Rehab	Cathodic				2,000	-			Cathodic protection 6 FMs.	\$ 550,000
3	CIP-16b	LK	Magnolia Avenue Trunkline Improvements	Magnolia Avenue Trunkline Improvements 50%	TL	Rehab	OC	0.4	2,190			10-27	C905			\$ 1,502,000
4	HG	LK	Heather Gardens Pipeline Improvements	Heather Gardens Pipeline Improvements	GS	Capacity	OC	0.7	3,800	2,710		10	C900	26	Upsize and regrade to PS.	\$ 864,000
5	ALH	LK	Ward St and Magnolia Ave Sewer Improvements	Ward St and Magnolia Ave Sewer Improvements	GS	Realign	OC	0.1	400	290		10	C900	3	American Legion Hall	\$ 146,000
6	VLP	GB	Via La Paz Sewer Improvements	Via La Paz Sewer Improvements	GS	Rehab	OC	0.3	1,500	2,140		8	HDPE	10	Evaluate realignment, above-ground pipe in slide area.	\$ 674,000
7	SA-06	SA	San Anselmo Basin 06 Rehabilitation	CIPP/SA/B06/C-RED/Short Ranch/8,990ft	GS	Rehab	CIPP	1.9	10,130	810		4-12	CIPP/HDPE	51	Allowance for pipeburst/manholes due to size/condition	\$ 956,000
8	SA-07-1	SA	San Anselmo Basin 07 Rehabilitation	CIPP/SA/B07/C-ORG/San Anselmo/44,000ft 50%	GS	Rehab	CIPP	4.2	22,000	1,600		4-8	CIPP/HDPE	60	Allowance for pipeburst/manholes due to size/condition	\$ 1,989,000
9	SA-02-2	SA	San Anselmo Basin 07 Rehabilitation	CIPP/SA/B07/C-ORG/San Anselmo/44,000ft 50%	GS	Rehab	CIPP	4.2	22,000	1,600		4-8	CIPP/HDPE	60	Allowance for pipeburst/manholes due to size/condition	\$ 1,989,000
10	I/I	RVSD	Infiltration/Inflow Study	Infiltration/Inflow Investigations - Basins 01, 08, 09, 10	GS	Planning	ENG					-			Field investigations and enforcement	\$ 200,000
11	COND	RVSD	Condition Assessment	Large Diameter Sewer Structural Condition Assessment	PLAN	Planning	ENG					12-42				\$ 750,000
<b>TOTAL</b>							<b>12.7</b>	<b>66,870</b>	<b>12,610</b>	<b>2,000</b>	<b>=</b>	<b>81,480</b>	<b>feet (Actual + Laterals + In Lieu)</b>			<b>\$ 11,084,000</b>

**RVSD Rolling 15 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 5 (2018)</b>																
1	CIP-4	SA/RO	SFD/Winship Rehabilitation/Capacity Improvements	SFD/Winship Rehabilitation/Capacity Improvements Phase II	GS	Capacity	PB/MT	1.8	9,700	6,930		8-12	C900		Phase II	\$ 2,928,000
2	CIP-16b	LK	Magnolia Avenue Trunkline Improvements	Magnolia Avenue Trunkline Improvements 50%	TL	Rehab	OC	0.4	2,185			10-27	C905			\$ 1,499,000
3	CIP-21c	GB	Manor Easement Capacity Improvements	Manor Easement Capacity Improvements	GS	Capacity	PB	0.2	864	120		15	C905		Design and construction.	\$ 373,000
4	VLY-GW	FX/KW	Valley Road and Greenwood Way Improvements	Valley Road FX and Greenwood Way KW Improvements	GS	Rehab	OC	0.4	2,200	3,140		8	HDPE	12	Evaluate realignment, above-ground pipe in slide area.	\$ 988,000
5	WOOD	SA	Woodside Drive Sewer Improvements	Woodside Drive Sewer Improvements	GS	Rehab	OC	0.5	2,500	1,790		8	C900	10		\$ 912,000
6	KF-12	KF	Kentfield Basin 12 Rehabilitation	CIPP/KF/B12/C-ORG/Laurel Grove/31,200ft	GS	Rehab	CIPP	5.9	31,200	2,200		4-12	CIPP/HDPE	156	Allowance for pipeburst/manholes due to size/condition	\$ 2,820,000
7	LK-16	LK	Larkspur Basin 16 Rehabilitation	CIPP/LK/B16/C-RED/Larkspur Creek/17,600ft	GS	Rehab	CIPP	3.3	17,600	1,300		4-8	CIPP/HDPE	159	Allowance for pipeburst/manholes due to size/condition	\$ 1,591,000
8	I/I	RVSD	Infiltration/Inflow Study	Infiltration/Inflow Report	GS	Planning	ENG					-			Recommendations	\$ 75,000
<b>TOTAL</b>							<b>12.5</b>	<b>66,249</b>	<b>15,480</b>		<b>=</b>	<b>81,729</b>	<b>feet (Actual + Laterals + In Lieu)</b>			<b>\$ 11,186,000</b>

**RVSD Rolling 15 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 6 (2019)</b>																
1	CIP-4	SA/RO	SFD/Winship Rehabilitation/Capacity Improvements	SFD/Winship Rehabilitation/Capacity Improvements Phase III	GS	Capacity	PB/MT	0.9	4,850	3,460		8-12	C900		Phase III	\$ 1,464,000
2	CIP-6	SA/RO	Sequoia Park/Tozzi Creek Rehabilitation	Sequoia Park/Tozzi Creek Rehabilitation Design	GS	Rehab	ENG					6-8			Design Engineering. Replace Pipe.	\$ 780,000
3	CIP-11a	SA	Miracle Mile Capacity Improvements	Miracle Mile Capacity Improvements 14%	GS	Capacity	ENG					12			Design engineering. Reevaluate after rehab Basin 07.	\$ 280,000
4	TEC	RVSD	Techite Pipe Replacement	Techite Pipe Replacement Project	TL	Rehab	OC	0.4	2,300			24-36	C905	10	Design engineering and construction.	\$ 2,600,000
5	SH-U-03	SH	Sleepy Hollow Upper Basin 03 Rehabilitation	CIPP/SH/B03/C-GRN/Upper SH Creek/13,610ft	GS	Rehab	CIPP	2.6	13,700	1,000		4-10	CIPP/HDPE	64	Allowance for pipeburst/manholes due to size/condition	\$ 1,239,000
6	KW-11-1	KW	Kent Woodlands Basin 11 Rehabilitation	CIPP/KW/B11/C-ORG/Woodland-Evergreen/48,900ft 50%, including CIP 21d Eliseo	GS	Rehab	CIPP	4.6	24,450	1,700		4-8	CIPP/HDPE	139	Include CIP 21d Eliseo in this project. Allowance for pipeburst/manholes due to size/condition	\$ 2,210,000
7	KW-11-2	KW	Kent Woodlands Basin 11 Rehabilitation	CIPP/KW/B11/C-ORG/Woodland-Evergreen/48,900ft 50%	GS	Rehab	CIPP	4.6	24,450	1,700		4-8	CIPP/HDPE	139	Allowance for pipeburst/manholes due to size/condition	\$ 2,210,000
8	SHECAP	RVSD	SHECAP Update	SHECAP Update (Small and Large Diameter)	PLAN	Planning	ENG					-			Flow monitoring, model update, project evaluation.	\$ 300,000
<b>TOTAL</b>							<b>13.2</b>	<b>69,750</b>	<b>7,860</b>		<b>=</b>	<b>77,610</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 11,083,000</b>	

**RVSD Rolling 15 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 7 (2020)</b>																
1	CIP-6	SA/RO	Sequoia Park/Tozzi Creek Rehabilitation	Sequoia Park/Tozzi Creek Rehabilitation 50%	GS	Rehab	OC	1.0	5,500	3,930		8	C900		Sequoia, Rd, Olive Ave, Park Dr	\$ 3,086,000
2	CIP-11a	SA	Miracle Mile Capacity Improvements	Miracle Mile Capacity Improvements 86%	GS	Capacity	PB/MT	0.6	3,250			15	HDPE		Reevaluate after rehab Basin 07.	\$ 1,691,000
3	CIP-18	FX	Spruce/Park/Merwin/Broadway Capacity Improvements	Spruce/Park/Merwin/Broadway Capacity Improvements	GS	Capacity	PB/OC/MT	0.5	2,405	180		15	C905		Design and construction.	\$ 1,930,000
4	CIP-16a	KF	Laurel Grove/McAllister Capacity Improvements	Laurel Grove/McAllister Capacity Improvements Design	GS	Capacity	ENG					10-15			Design Engineering. Reevaluate after rehab Basin 12.	\$ 130,000
5	HV	LK	Hillview Sewer Improvements	Hillview Sewer Improvements Design	GS	Rehab	ENG					8			Replace due to subsidence	\$ 500,000
6	LK-19	LK	Larkspur Basin 19 Rehabilitation	CIPP/LK/B19/C-ORG/Landing/4,660ft	GS	Rehab	CIPP	0.9	4,660	300		6-10	CIPP	27	Allowance for pipeburst/manholes due to size/condition	\$ 422,000
7	GB-15	GB	Greenbrae Basin 15 Rehabilitation	CIPP/GB/B15/C-ORG/LK Greenbrae/39,000ft	GS	Rehab	CIPP	7.4	39,000	2,800		4-8	CIPP/HDPE	208	Allowance for pipeburst/manholes due to size/condition	\$ 3,525,000
<b>TOTAL</b>							<b>10.4</b>	<b>54,815</b>	<b>7,210</b>		<b>=</b>	<b>62,025</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 11,284,000</b>	

**RVSD Rolling 15 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 8 (2021)</b>																
1	CIP-6	SA/RO	Sequoia Park/Tozzi Creek Rehabilitation	Sequoia Park/Tozzi Creek Rehabilitation 50%	GS	Rehab	OC	1.0	5,500	3,930		8	C900		Sequoia, Rd, Olive Ave, Park Dr	\$ 3,086,000
2	CIP-16a	KF	Laurel Grove/McAllister Capacity Improvements	Laurel Grove/McAllister Capacity Improvements	GS	Capacity	PB	0.4	2,256	1,610		10-15	C905		Reevaluate after rehab Basin 12.	\$ 921,000
3	CIP-21b	SA	The Alameda/Brookmead Capacity Improvements	The Alameda/Brookmead Capacity Improvements	GS	Capacity	OC/PB	0.3	1,670			15	C905		Reevaluate after rehab Basins 03 & 04.	\$ 843,000
4	RVTL	RVSD	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Design 40%	TL	Rehab	ENG					18-42			Engineering design	\$ 800,000
5	U-SEQ	SA	Upper Sequoia Road Sewer Improvements	Upper Sequoia Road Sewer Improvements	GS	Rehab	OC	0.3	1,300	930		8	C900	11	Realignment into road.	\$ 475,000
6	HV	LK	Hillview Sewer Improvements	Hillview Sewer Improvements	GS	Rehab	OC	1.5	7,630	5,450		8-10	C900	44	"College streets"	\$ 2,783,000
7	LK-17-1	LK	Larkspur Basin 17 Rehabilitation	CIPP/LK/B17/C-ORG/Northern Larkspur/50,000ft 50%	GS	Rehab	CIPP	4.7	25,000	1,800		4-8	CIPP/HDPE	150	Allowance for pipeburst/manholes due to size/condition	\$ 2,260,000
<b>TOTAL</b>							<b>8.2</b>	<b>43,356</b>	<b>13,720</b>		<b>=</b>	<b>57,076</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 11,168,000</b>	

**RVSD Rolling 15 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 9 (2022)</b>																
1	CIP-21a	KF	SFD/Berry Capacity Improvements	SFD/Berry Capacity Improvements	GS	Capacity	PB	0.2	1,100	790		15	HDPE		Reevaluate after rehab Basin 09.	\$ 520,000
2	RVTL	RVSD	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Design 30%	TL	Rehab	ENG					18-42			Engineering design	\$ 600,000
3	LK-17-2	LK	Larkspur Basin 17 Rehabilitation	CIPP/LK/B17/C-ORG/Northern Larkspur/50,000ft 50%	GS	Rehab	CIPP	4.7	25,000	1,800		4-8	CIPP/HDPE	150	Allowance for pipeburst/manholes due to size/condition	\$ 2,260,000
4	GB-18	GB	Greenbrae Basin 18 Rehabilitation	CIPP/GB/B18/C-ORG/GB Larkspur/40,000ft	GS	Rehab	CIPP	7.6	40,000	2,900		4-12	CIPP/HDPE	135	Allowance for pipeburst/manholes due to size/condition	\$ 3,616,000
5	RO-08	RO	Ross Basin 08 Rehabilitation	CIPP/RO/B08/C-ORG/Ross/10,200ft	GS	Rehab	CIPP	1.9	10,200	1,100		4-10	CIPP/HDPE	47	Allowance for pipeburst/manholes due to size/condition	\$ 1,023,000
6	SA-08	SA	San Anselmo Basin 08 Rehabilitation	CIPP/SA/B08/C-ORG/San Anselmo/18,700ft	GS	Rehab	CIPP	3.5	18,700	2,000		4-10	CIPP/HDPE	128	Allowance for pipeburst/manholes due to size/condition	\$ 1,875,000
7	KW-10	KW	Kent Woodlands Basin 10 Rehabilitation	CIPP/KWB10/C-ORG/Goodhill/18,800 ft	GS	Rehab	CIPP	3.6	18,800	1,300		4-6	CIPP/HDPE	85	Allowance for pipeburst/manholes due to size/condition	\$ 1,700,000
<b>TOTAL</b>							<b>21.6</b>	<b>113,800</b>	<b>9,890</b>		<b>=</b>	<b>123,690</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 11,594,000</b>	

**RVSD Rolling 15 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 10 (2023)</b>																
1	CIP-19	SA	Sonoma/Nokomis Capacity Improvements	Sonoma/Nokomis Capacity Improvements	GS	Capacity	OC/MT	0.5	2,765	1,050		15	C905		Design & construction. Reevaluate after rehab Basin 06.	\$ 1,968,000
2	RVTL	RVSD	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Design 30%	TL	Rehab	ENG					18-42			Engineering design	\$ 600,000
3	LC-CM	GB	La Cuesta/Corte Morada Pipeline Improvements	La Cuesta/Corte Morada Pipeline Improvements	GS	Capacity	OC	0.4	2,100	1,500		8-12	C900		Includes engineering	\$ 700,000
4	RO-10	RO	Ross Basin 10 Rehabilitation	CIPP/RO/B10/C-ORG/Lagunitas/22,300 ft	GS	Rehab	CIPP	4.2	22,300	2,400		4-8	CIPP/HDPE	91	Allowance for pipeburst/manholes due to size/condition	\$ 2,236,000
5	GB-14	GB	Greenbrae Basin 14 Rehabilitation	CIPP/GB/B14/C-ORG/Greenbrae-Kentfield/33,400ft	GS	Rehab	CIPP	6.3	33,400	2,400		4-8	CIPP/HDPE	145	Allowance for pipeburst/manholes due to size/condition	\$ 3,019,000
6	FX-01-1	FX	Fairfax Basin 01 Rehabilitation	CIPP/FX/B01/C-GRN/Upper Fairfax/65,800ft 50%	GS	Rehab	CIPP	6.2	32,900	2,400		4-12	CIPP/HDPE	172	Allowance for pipeburst/manholes due to size/condition	\$ 2,974,000
7	SHECAP	RVSD	SHECAP Update	SHECAP Update - Rehabilitated Basins	PLAN	Planning	ENG					-			Flow monitoring, model update, project evaluation.	\$ 300,000
8	SSRMP	RVSD	SSRMP Update	SSRMP Update	PLAN	Planning	ENG					-			Hydraulic, structural, O&M condition, CIP update.	\$ 250,000
<b>TOTAL</b>							<b>17.7</b>	<b>93,465</b>	<b>9,750</b>		<b>=</b>	<b>103,215</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 12,047,000</b>	

**RVSD Rolling 15 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 11 (2024)</b>																
1	RVTL	KF	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer - Corte Madera Creek 60%	TL	Rehab	OC	0.7	3,420			42	HDPE	9		\$ 6,840,000
2	RVTL	KF	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Engineering Services During Construction	TL	Rehab	ENG					18-42				\$ 2,052,000
3	FX-01-2	FX	Fairfax Basin 01 Rehabilitation	CIPP/FX/B01/C-GRN/Upper Fairfax/65,800ft 50%	GS	Rehab	CIPP	6.2	32,900	2,400		4-12	CIPP/HDPE	172	Allowance for pipeburst/manholes due to size/condition	\$ 2,974,000
4	RO-09	RO	Ross Basin 09 Rehabilitation	CIPP/RO/B09&20/C-GRN/Ross/24,200ft	GS	Rehab	CIPP	4.6	24,200	1,700		4-12	CIPP	115	Allowance for pipeburst/manholes due to size/condition	\$ 2,188,000
<b>TOTAL</b>							<b>11.5</b>	<b>60,520</b>	<b>4,100</b>		<b>=</b>	<b>64,620</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 14,054,000</b>	

**RVSD Rolling 15 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 12 (2025)</b>																
1	RVTL	KF/RO	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer - Corte Madera Creek 40%	TL	Rehab	OC	0.4	2,260			42	HDPE	9		\$ 4,520,000
2	RVTL	KF/RO	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Engineering Services During Construction	TL	Rehab	ENG					18-42				\$ 1,356,000
3	SA-05-1	SA	San Anselmo Basin 05 Rehabilitation	CIPP/SA/B05/C-GRN/San Anselmo/44,340ft 50%	GS	Rehab	CIPP	4.2	22,150	1,600		4-12	CIPP/HDPE	130	Allowance for pipeburst/manholes due to size/condition	\$ 2,002,000
4	SA-05-2	SA	San Anselmo Basin 05 Rehabilitation	CIPP/SA/B05/C-GRN/San Anselmo/44,340ft 50%	GS	Rehab	CIPP	4.2	22,150	1,600		4-12	CIPP/HDPE	130	Allowance for pipeburst/manholes due to size/condition	\$ 2,002,000
5	FX-05	FX	Fairfax Basin 05 Rehabilitation	CIPP/FX/B05/C-GRN/Lower Fairfax/38,300ft	GS	Rehab	CIPP	7.3	38,300	2,700		4-12	CIPP/HDPE	200	Allowance for pipeburst/manholes due to size/condition	\$ 3,462,000
<b>TOTAL</b>							<b>16.1</b>	<b>84,860</b>	<b>5,900</b>		<b>=</b>	<b>90,760</b>	<b>feet (Actual + Laterals + In Lieu)</b>			<b>\$ 13,342,000</b>

**RVSD Rolling 15 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Year 13 (2026)</b>															
1	RVTL	RO/SA	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer - San Anselmo/Sylvan	TL	Rehab	OC	1.0	5,390			36-42	HDPE	22	\$ 10,780,000
2	RVTL	RO/SA	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Engineering Services During Construction	TL	Rehab	ENG					18-42			\$ 3,234,000
3	PS14	LK	PS 14 Larkspur Pump Station Rehabilitation	PS 14 Larkspur Pump Station Rehabilitation Design 50%	PS	Rehab	ENG								\$ 600,000
<b>TOTAL</b>								<b>1.0</b>	<b>5,390</b>			<b>=</b>	<b>5,390</b>	<b>feet (Actual + Laterals + In Lieu)</b>	<b>\$ 14,614,000</b>

**RVSD Rolling 15 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 14 (2027)</b>																
1	RVTL	SA	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer - Downtown San Anselmo	TL	Rehab	OC	1.3	6,580			30-36	HDPE	27		\$ 13,160,000
2	RVTL	RO/SA	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Engineering Services During Construction	TL	Rehab	ENG					18-42				\$ 3,948,000
3	PS14	LK	PS 14 Larkspur Pump Station Rehabilitation	PS 14 Larkspur Pump Station Rehabilitation Design 50%	PS	Rehab	ENG									\$ 600,000
<b>TOTAL</b>								<b>1.3</b>	<b>6,580</b>			<b>=</b>	<b>6,580</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 17,708,000</b>

**RVSD Rolling 15 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 15 (2028)</b>																
1	RVTL	FX	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer - Fairfax	TL	Rehab	OC	0.9	5,010			18-30	HDPE	22	To Center Blvd x Forrest Ave	\$ 7,515,000
2	RVTL	FX	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Engineering Services During Construction	TL	Rehab	ENG					18-42				\$ 2,255,000
3	SH-03-1	SH	Sleepy Hollow Basin 03 Rehabilitation	CIPP/SH/B03/C-GRN/Sleepy Hollow/59,600ft 50%	GS	Rehab	CIPP	5.6	29,800	2,100		4-12	CIPP/HDPE	152	Allowance for pipeburst/manholes due to size/condition	\$ 2,694,000
4	SH-03-2	SH	Sleepy Hollow Basin 03 Rehabilitation	CIPP/SH/B03/C-GRN/Sleepy Hollow/59,600ft 50%	GS	Rehab	CIPP	5.6	29,800	2,100		4-12	CIPP/HDPE	152	Allowance for pipeburst/manholes due to size/condition	\$ 2,694,000
5	PS14	LK	PS 14 Larkspur Pump Station Rehabilitation	PS 14 Larkspur Pump Station Rehabilitation 50%	PS	Rehab	PS									\$ 2,000,000
6	PS15	KF	PS 15 Kentfield Pump Station Rehabilitation	PS 15 Kentfield Pump Station Rehabilitation Design 50%	PS	Rehab	ENG									\$ 600,000
<b>TOTAL</b>							<b>12.2</b>	<b>64,610</b>	<b>4,200</b>		<b>=</b>	<b>68,810</b>	<b>feet (Actual + Laterals + In Lieu)</b>			<b>\$ 17,758,000</b>

**20-YEAR**

**RVSD Rolling 20 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Year 1 (2014)</b>															
1	RVSD	SCADA System	SCADA System for PS 10	PS	Operations	PS				364	-			Installation at PS 10	\$ 100,000
2	RVSD	SCADA System	SCADA System for PS 15	PS	Operations	PS				545				Installation at PS 15	\$ 150,000
3	LK	Hwy 101/Riviera Improvements	Hwy 101/Riviera FM 21/33 Replacement & PS 20-21/31-36 Pump/Flow Meter/Equipment Improvs Design	PS/FM	Rehab	ENG				6				Design engineering for combined CIPs 8a, 10, 22 & 24	\$ 410,000
4	SA	Red Hill Ave Rehabilitation	Red Hill Ave Rehabilitation Design	GS	Rehab	ENG				6-8				Design Engineering. Replace Pipe.	\$ 50,000
5	GB	PS 12 Bon Air/PS 13 Greenbrae & Greenbrae FM	PS 12 Bon Air/PS 13 Greenbrae Mech & Elec Improvs & Greenbrae Force Main Replacement Design	PS/FM	Capacity	ENG				30				Design study & engineering for combined CIPs 13 & 17	\$ 1,080,000
6	SA	Upper Butterfield Capacity Improvements	Upper Butterfield Capacity Improvements Design	GS	Capacity	ENG				12-15				Design Engineering. Upsize pipe.	\$ 210,000
7	FX	Westbrae/Hawthorne Capacity Improvements	Westbrae Trunk Sewer Alignment Study	TL	Rehab	ENG				8-10				Preliminary engineering study	\$ 100,000
8	FX	Westbrae/Hawthorne Capacity Improvements	Westbrae/Hawthorne Capacity Improvements Design	GS	Capacity	ENG				8-10				Design Engineering after alignment study	\$ 110,000
9	LK	Magnolia Avenue Trunkline Improvements	Magnolia Avenue Trunkline Improvements Study	TL	Rehab	ENG				10-27				Preliminary engineering study	\$ 90,000
10	RVSD	Techite Pipe Replacement	Preliminary Engineering for Techite Pipe Replacement	TL	Rehab	ENG				24-36					\$ 75,000
11	FX	Structural Priority Pipeline Rehabilitation Project	Structural Priority Pipeline Rehabilitation Project 1 (BDR Jan/Feb Project 1, BDR Mar/Apr Project 1)	GS	Rehab	CIPP	1.1	5,755		6-8	CIPP	38		Structural priority pipe repair based on CCTV findings	\$ 546,000
12	KF/KW	Structural Priority Pipeline Rehabilitation Project	Structural Priority Pipeline Rehabilitation Project 2 (BDR Jan/Feb Project 2, BDR Mar/Apr Project 2)	GS	Rehab	CIPP	1.2	6,115		6-8	CIPP	38		Structural priority pipe repair based on CCTV findings	\$ 580,000
13	SA	Structural Priority Pipeline Rehabilitation Project	Structural Priority Pipeline Rehabilitation Project 3 (BDR Dec Project 11, BDR Jan/Feb Project 3, BDR Mar/Apr Project 3)	GS	Rehab	CIPP	1.1	5,890		6-8	CIPP	43		Structural priority pipe repair based on CCTV findings	\$ 559,000
14	RVSD	Infiltration/Inflow Study	Infiltration/Inflow Investigations - Basins 02, 04, 06, 07	GS	Planning	ENG				-				Field investigations and enforcement	\$ 180,000
15	FX	Fairfax Basin 02 Rehabilitation	CIPP/FX/B02/C-RED/Bolinas-Cascade/38,600ft 50%	GS	Rehab	CIPP	3.7	19,300	1,400	4-6	CIPP/HDPE	97		Allowance for pipeburst/manholes due to size/condition	\$ 1,830,000
16	FX	Fairfax Basin 02 Rehabilitation	CIPP/FX/B02/C-RED/Bolinas-Cascade/38,600ft 50%	GS	Rehab	CIPP	3.7	19,300	1,400	4-6	CIPP/HDPE	97		Allowance for pipeburst/manholes due to size/condition	\$ 1,830,000
17	SA	San Anselmo Basin 04 Rehabilitation	CIPP/SA/B04/C-RED/Lower Butterfield/31,500ft 50%	GS	Rehab	CIPP	3.0	15,800	1,700	4-8	CIPP/HDPE	102		Allowance for pipeburst/manholes due to size/condition	\$ 1,654,000
18	SA	San Anselmo Basin 04 Rehabilitation	CIPP/SA/B04/C-RED/Lower Butterfield/31,500ft 50%	GS	Rehab	CIPP	3.0	15,800	1,700	4-8	CIPP/HDPE	102		Allowance for pipeburst/manholes due to size/condition	\$ 1,654,000
<b>TOTAL</b>							<b>16.7</b>	<b>87,960</b>	<b>6,200</b>	<b>909</b>	<b>=</b>	<b>95,069</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 11,208,000</b>

**RVSD Rolling 20 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Year 2 (2015)</b>															
1	RVSD	SCADA System	SCADA System for PS 14	PS	Operations	PS				545				Installation at PS 14	\$ 150,000
2	LK	Hwy 101/Riviera Improvements	Hwy 101/Riviera FM 21/33 Replacement & PS 20-21/31-36 Pump/Flow Meter/Equipment Improvs	PS/FM	Rehab	PS/FM	0.2	1,050		5,371	8	HDPE		CIPs 8a, 10, 22 & 23	\$ 1,823,500
3	SA	Red Hill Ave Rehabilitation	Red Hill Ave Rehabilitation	GS	Rehab	OC	0.3	1,677	1,200		15	C905			\$ 560,000
4	KF	Hillside Ave Rehabilitation	Hillside Ave Rehabilitation Design	GS	Rehab	ENG					6-8			Design Engineering. Replace Pipe.	\$ 90,000
5	GB	PS 12 Bon Air/PS 13 Greenbrae & Greenbrae FM	PS 12 Bon Air/PS 13 Greenbrae Mech & Elec Improvs & Greenbrae Force Main Replacement 50%	FM	Rehab	SL	0.6	2,900			30	HDPE		2,900 ft of 30-inch FM	\$ 2,000,000
6	FX	Westbrae/Hawthorne Capacity Improvements	Westbrae/Hawthorne Capacity Improvements	GS	Capacity	OC	0.4	2,000	910		8	C900	8	Also needs rehab. Evaluate realignment.	\$ 786,000
7	SA	Lower Butterfield Capacity Improvements	Lower Butterfield/Meadowcroft/Broadmoor/SFD Capacity Improvements Design	GS	Capacity	ENG					10-12			Design Engineering. Upsize pipe. Evaluate redirecting flows from Willow Way siphon within this project.	\$ 320,000
8	LK	Heather Gardens Pipeline Replacement	Heather Gardens Pipeline Replacement Design	GS	Rehab	ENG					6-8			Design Engineering. Upsize and regrade pipe, PS.	\$ 216,000
9	RVSD	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Engineering Study	TL	Planning	ENG					18-42			Preliminary engineering study	\$ 500,000
10	RVSD	PS 15/22/23/24/25/37 Improvements	PS 15/22/23/24/25/37 Pump/Flow Meter/Reliability and Safety Improvements	PS	Rehab	PS				3,902	-				\$ 1,073,000
11	RVSD	Structural Priority Pipeline Rehabilitation Project	Structural Priority Pipeline Rehabilitation Project 4	GS	Rehab	CIPP	2.0	10,560			6-8	CIPP	20	Structural priority pipe repair based on CCTV findings	\$ 1,001,000
12	RVSD	Infiltration/Inflow Study	Infiltration/Inflow Investigations - Basins 11 - 17	GS	Planning	ENG					-			Field investigations and enforcement	\$ 250,000
13	SA	Woodside Drive Sewer Improvements	Woodside Drive Sewer Improvements Design	GS	Rehab	ENG					8			Evaluate realignment. Design Engineering.	\$ 170,000
14	GB	Greenbrae Basin 13 Rehabilitation	CIPP/GB/B13/C-RED/GB Unincorporated/27,700ft	GS	Rehab	CIPP	5.3	27,700	2,000		4-6	CIPP/HDPE	178	Allowance for pipeburst/manholes due to size/condition	\$ 2,504,000
<b>TOTAL</b>							<b>8.7</b>	<b>45,887</b>	<b>4,110</b>	<b>9,818</b>	<b>=</b>	<b>59,815</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 11,443,500</b>

**RVSD Rolling 20 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Year 3 (2016)</b>															
1	CIP-4	SA/RO	SFD/Winship Rehabilitation/Capacity Improvements	SFD/Winship Rehabilitation/Capacity Improvements Design	GS	Capacity	ENG				8-12			Design Engineering. Upsize pipe.	\$ 880,000
2	CIP-6	SA/RO	Sequoia Park/Tozzi Creek Rehabilitation	Sequoia Park/Tozzi Creek Rehabilitation Pre-Design	GS	Rehab	ENG				6-8			Preliminary Engineering. Replace pipe.	\$ 80,000
3	CIP-12	KF	Hillside Ave Rehabilitation	Hillside Ave Rehabilitation	GS	Rehab	OC	0.7	3,489	2,490	8	C900			\$ 1,164,000
4	CIP-13*/17	GB	PS 12 Bon Air/PS 13 Greenbrae & Greenbrae FM	PS 12 Bon Air/PS 13 Greenbrae Mech & Elec Improvs & Greenbrae Force Main Replacement 50%	PS	Rehab	PS			8,364	-			PS 12/13 including SCADA	\$ 2,300,000
5	CIP-14	SA	Upper Butterfield Capacity Improvements	Upper Butterfield Capacity Improvements	GS	Capacity	PB	0.7	3,836	2,740	15	HDPE	18		\$ 1,536,000
6	CIP-16b	LK	Magnolia Avenue Trunkline Improvements	Magnolia Avenue Trunkline Improvements Design	TL	Rehab	ENG				10-27			Engineering design	\$ 330,000
7	CIP-20	SA	Lower Butterfield Capacity Improvements	Lower Butterfield/Meadowcroft/Broadmoor/SFD Capacity Improvements	GS	Capacity	PB/MT/OC	0.7	3,493		15	C905			\$ 1,922,000
8	CIP-23*	LK	PS 30 Heather Gardens Pump Station Replacement	PS 30 Heather Gardens Pump Station Replacement	PS	Capacity	PS			440	-			CIP 23 only. CIP 22/24 combined with 8a.	\$ 121,000
9	RVTL	FX	Ross Valley Trunk Sewer Pacheco Ave Culvert Crossing	Ross Valley Trunk Sewer Pacheco Ave Culvert Crossing	TL	Rehab	OC	0.2	1,000		18	C905	4	Trunkline in joint utility vault box with failed storm drain.	\$ 660,000
10	WILLOW	SA	Willow Way Siphon Sewer Improvements	Willow Way Siphon Sewer Improvements	GS	Rehab	OC	0.2	1,000	710	8	HDPE		Evaluate combining with CIP-20	\$ 449,000
11	STR-5	RVSD	Structural Priority Pipeline Rehabilitation Project	Structural Priority Pipeline Rehabilitation Project 5	GS	Rehab	CIPP	2.0	10,560		6-8	CIPP	20	Structural priority pipe repair based on CCTV findings	\$ 1,001,000
12	SH-L-03	SH	Sleepy Hollow Lower Basin 03 Rehabilitation	CIPP/SH/B03-4/C-RED/Lower SH Creek/12,890ft	GS	Rehab	CIPP	2.4	12,900	900	4-12	CIPP/HDPE	69	Allowance for pipeburst/manholes due to size/condition	\$ 1,166,000
13	I/I	RVSD	Infiltration/Inflow Study	Infiltration/Inflow Investigations - Basins 03, 05, 18, 19, 20	GS	Planning	ENG				-			Field investigations and enforcement	\$ 230,000
<b>TOTAL</b>							<b>6.9</b>	<b>36,278</b>	<b>6,840</b>	<b>8,804</b>	<b>=</b>	<b>51,922</b>	<b>feet (Actual + Laterals + In Lieu)</b>	<b>\$ 11,839,000</b>	

**RVSD Rolling 20 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 4 (2017)</b>																
1	CIP-4	SA/RO	SFD/Winship Rehabilitation/Capacity Improvements	SFD/Winship Rehabilitation/Capacity Improvements Phase I	GS	Capacity	PB/MT	0.9	4,850	3,460		8-12	C900		Phase I	\$ 1,464,000
2	CIP-9*	RVSD	Cathodic Improvements	FM Cathodic Improvements & Inspections for FM 1/2/10/13/14/37	FM	Rehab	Cathodic				2,000	-			Cathodic protection 6 FMs.	\$ 550,000
3	CIP-16b	LK	Magnolia Avenue Trunkline Improvements	Magnolia Avenue Trunkline Improvements 50%	TL	Rehab	OC	0.4	2,190			10-27	C905			\$ 1,502,000
4	HG	LK	Heather Gardens Pipeline Improvements	Heather Gardens Pipeline Improvements	GS	Capacity	OC	0.7	3,800	2,710		10	C900	26	Upsize and regrade to PS.	\$ 864,000
5	ALH	LK	Ward St and Magnolia Ave Sewer Improvements	Ward St and Magnolia Ave Sewer Improvements	GS	Realign	OC	0.1	400	290		10	C900	3	American Legion Hall	\$ 146,000
6	VLP	GB	Via La Paz Sewer Improvements	Via La Paz Sewer Improvements	GS	Rehab	OC	0.3	1,500	2,140		8	HDPE	10	Evaluate realignment, above-ground pipe in slide area.	\$ 674,000
7	SA-06	SA	San Anselmo Basin 06 Rehabilitation	CIPP/SA/B06/C-RED/Short Ranch/8,990ft	GS	Rehab	CIPP	1.9	10,130	810		4-12	CIPP/HDPE	51	Allowance for pipeburst/manholes due to size/condition	\$ 956,000
8	SA-07-1	SA	San Anselmo Basin 07 Rehabilitation	CIPP/SA/B07/C-ORG/San Anselmo/44,000ft 50%	GS	Rehab	CIPP	4.2	22,000	1,600		4-8	CIPP/HDPE	60	Allowance for pipeburst/manholes due to size/condition	\$ 1,989,000
9	SA-02-2	SA	San Anselmo Basin 07 Rehabilitation	CIPP/SA/B07/C-ORG/San Anselmo/44,000ft 50%	GS	Rehab	CIPP	4.2	22,000	1,600		4-8	CIPP/HDPE	60	Allowance for pipeburst/manholes due to size/condition	\$ 1,989,000
10	I/I	RVSD	Infiltration/Inflow Study	Infiltration/Inflow Investigations - Basins 01, 08, 09, 10	GS	Planning	ENG					-			Field investigations and enforcement	\$ 200,000
11	COND	RVSD	Condition Assessment	Large Diameter Sewer Structural Condition Assessment	PLAN	Planning	ENG					12-42				\$ 750,000
<b>TOTAL</b>							<b>12.7</b>	<b>66,870</b>	<b>12,610</b>	<b>2,000</b>	<b>=</b>	<b>81,480</b>	<b>feet (Actual + Laterals + In Lieu)</b>	<b>\$ 11,084,000</b>		

**RVSD Rolling 20 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 5 (2018)</b>																
1	CIP-4	SA/RO	SFD/Winship Rehabilitation/Capacity Improvements	SFD/Winship Rehabilitation/Capacity Improvements Phase II	GS	Capacity	PB/MT	1.8	9,700	6,930		8-12	C900		Phase II	\$ 2,928,000
2	CIP-16b	LK	Magnolia Avenue Trunkline Improvements	Magnolia Avenue Trunkline Improvements 50%	TL	Rehab	OC	0.4	2,185			10-27	C905			\$ 1,499,000
3	CIP-21c	GB	Manor Easement Capacity Improvements	Manor Easement Capacity Improvements	GS	Capacity	PB	0.2	864	120		15	C905		Design and construction.	\$ 373,000
4	VLY-GW	FX/KW	Valley Road and Greenwood Way Improvements	Valley Road FX and Greenwood Way KW Improvements	GS	Rehab	OC	0.4	2,200	3,140		8	HDPE	12	Evaluate realignment, above-ground pipe in slide area.	\$ 988,000
5	WOOD	SA	Woodside Drive Sewer Improvements	Woodside Drive Sewer Improvements	GS	Rehab	OC	0.5	2,500	1,790		8	C900	10		\$ 912,000
6	KF-12	KF	Kentfield Basin 12 Rehabilitation	CIPP/KF/B12/C-ORG/Laurel Grove/31,200ft	GS	Rehab	CIPP	5.9	31,200	2,200		4-12	CIPP/HDPE	156	Allowance for pipeburst/manholes due to size/condition	\$ 2,820,000
7	LK-16	LK	Larkspur Basin 16 Rehabilitation	CIPP/LK/B16/C-RED/Larkspur Creek/17,600ft	GS	Rehab	CIPP	3.3	17,600	1,300		4-8	CIPP/HDPE	159	Allowance for pipeburst/manholes due to size/condition	\$ 1,591,000
8	I/I	RVSD	Infiltration/Inflow Study	Infiltration/Inflow Report	GS	Planning	ENG					-			Recommendations	\$ 75,000
<b>TOTAL</b>							<b>12.5</b>	<b>66,249</b>	<b>15,480</b>		<b>=</b>	<b>81,729</b>	<b>feet (Actual + Laterals + In Lieu)</b>			<b>\$ 11,186,000</b>

**RVSD Rolling 20 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 6 (2019)</b>																
1	CIP-4	SA/RO	SFD/Winship Rehabilitation/Capacity Improvements	SFD/Winship Rehabilitation/Capacity Improvements Phase III	GS	Capacity	PB/MT	0.9	4,850	3,460		8-12	C900		Phase III	\$ 1,464,000
2	CIP-6	SA/RO	Sequoia Park/Tozzi Creek Rehabilitation	Sequoia Park/Tozzi Creek Rehabilitation Design	GS	Rehab	ENG					6-8			Design Engineering. Replace Pipe.	\$ 780,000
3	CIP-11a	SA	Miracle Mile Capacity Improvements	Miracle Mile Capacity Improvements 14%	GS	Capacity	ENG					12			Design engineering. Reevaluate after rehab Basin 07.	\$ 280,000
4	TEC	RVSD	Techite Pipe Replacement	Techite Pipe Replacement Project	TL	Rehab	OC	0.4	2,300			24-36	C905	10	Design engineering and construction.	\$ 2,600,000
5	SH-U-03	SH	Sleepy Hollow Upper Basin 03 Rehabilitation	CIPP/SH/B03/C-GRN/Upper SH Creek/13,610ft	GS	Rehab	CIPP	2.6	13,700	1,000		4-10	CIPP/HDPE	64	Allowance for pipeburst/manholes due to size/condition	\$ 1,239,000
6	KW-11-1	KW	Kent Woodlands Basin 11 Rehabilitation	CIPP/KWB11/C-ORG/Woodland-Evergreen/48,900ft 50%, including CIP 21d Eliseo	GS	Rehab	CIPP	4.6	24,450	1,700		4-8	CIPP/HDPE	139	Include CIP 21d Eliseo in this project. Allowance for pipeburst/manholes due to size/condition	\$ 2,210,000
7	KW-11-2	KW	Kent Woodlands Basin 11 Rehabilitation	CIPP/KWB11/C-ORG/Woodland-Evergreen/48,900ft 50%	GS	Rehab	CIPP	4.6	24,450	1,700		4-8	CIPP/HDPE	139	Allowance for pipeburst/manholes due to size/condition	\$ 2,210,000
8	SHECAP	RVSD	SHECAP Update	SHECAP Update (Small and Large Diameter)	PLAN	Planning	ENG					-			Flow monitoring, model update, project evaluation.	\$ 300,000
<b>TOTAL</b>							<b>13.2</b>	<b>69,750</b>	<b>7,860</b>		<b>=</b>	<b>77,610</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 11,083,000</b>	

**RVSD Rolling 20 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 7 (2020)</b>																
1	CIP-6	SA/RO	Sequoia Park/Tozzi Creek Rehabilitation	Sequoia Park/Tozzi Creek Rehabilitation 50%	GS	Rehab	OC	1.0	5,500	3,930		8	C900		Sequoia, Rd, Olive Ave, Park Dr	\$ 3,086,000
2	CIP-11a	SA	Miracle Mile Capacity Improvements	Miracle Mile Capacity Improvements 86%	GS	Capacity	PB/MT	0.6	3,250			15	HDPE		Reevaluate after rehab Basin 07.	\$ 1,691,000
3	CIP-18	FX	Spruce/Park/Merwin/Broadway Capacity Improvements	Spruce/Park/Merwin/Broadway Capacity Improvements	GS	Capacity	PB/OC/MT	0.5	2,405	180		15	C905		Design and construction.	\$ 1,930,000
4	CIP-16a	KF	Laurel Grove/McAllister Capacity Improvements	Laurel Grove/McAllister Capacity Improvements Design	GS	Capacity	ENG					10-15			Design Engineering. Reevaluate after rehab Basin 12.	\$ 130,000
5	HV	LK	Hillview Sewer Improvements	Hillview Sewer Improvements Design	GS	Rehab	ENG					8			Replace due to subsidence	\$ 500,000
6	LK-19	LK	Larkspur Basin 19 Rehabilitation	CIPP/LK/B19/C-ORG/Landing/4,660ft	GS	Rehab	CIPP	0.9	4,660	300		6-10	CIPP	27	Allowance for pipeburst/manholes due to size/condition	\$ 422,000
7	GB-15	GB	Greenbrae Basin 15 Rehabilitation	CIPP/GB/B15/C-ORG/LK Greenbrae/39,000ft	GS	Rehab	CIPP	7.4	39,000	2,800		4-8	CIPP/HDPE	208	Allowance for pipeburst/manholes due to size/condition	\$ 3,525,000
<b>TOTAL</b>							<b>10.4</b>	<b>54,815</b>	<b>7,210</b>		<b>=</b>	<b>62,025</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 11,284,000</b>	

**RVSD Rolling 20 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 8 (2021)</b>																
1	CIP-6	SA/RO	Sequoia Park/Tozzi Creek Rehabilitation	Sequoia Park/Tozzi Creek Rehabilitation 50%	GS	Rehab	OC	1.0	5,500	3,930		8	C900		Sequoia, Rd, Olive Ave, Park Dr	\$ 3,086,000
2	CIP-16a	KF	Laurel Grove/McAllister Capacity Improvements	Laurel Grove/McAllister Capacity Improvements	GS	Capacity	PB	0.4	2,256	1,610		10-15	C905		Reevaluate after rehab Basin 12.	\$ 921,000
3	CIP-21b	SA	The Alameda/Brookmead Capacity Improvements	The Alameda/Brookmead Capacity Improvements	GS	Capacity	OC/PB	0.3	1,670			15	C905		Reevaluate after rehab Basins 03 & 04.	\$ 843,000
4	RVTL	RVSD	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Design 40%	TL	Rehab	ENG					18-42			Engineering design	\$ 800,000
5	U-SEQ	SA	Upper Sequoia Road Sewer Improvements	Upper Sequoia Road Sewer Improvements	GS	Rehab	OC	0.3	1,300	930		8	C900	11	Realignment into road.	\$ 475,000
6	HV	LK	Hillview Sewer Improvements	Hillview Sewer Improvements	GS	Rehab	OC	1.5	7,630	5,450		8-10	C900	44	"College streets"	\$ 2,783,000
7	LK-17-1	LK	Larkspur Basin 17 Rehabilitation	CIPP/LK/B17/C-ORG/Northern Larkspur/50,000ft 50%	GS	Rehab	CIPP	4.7	25,000	1,800		4-8	CIPP/HDPE	150	Allowance for pipeburst/manholes due to size/condition	\$ 2,260,000
<b>TOTAL</b>							<b>8.2</b>	<b>43,356</b>	<b>13,720</b>		<b>=</b>	<b>57,076</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 11,168,000</b>	

**RVSD Rolling 20 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 9 (2022)</b>																
1	CIP-21a	KF	SFD/Berry Capacity Improvements	SFD/Berry Capacity Improvements	GS	Capacity	PB	0.2	1,100	790		15	HDPE		Reevaluate after rehab Basin 09.	\$ 520,000
2	RVTL	RVSD	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Design 30%	TL	Rehab	ENG					18-42			Engineering design	\$ 600,000
3	LK-17-2	LK	Larkspur Basin 17 Rehabilitation	CIPP/LK/B17/C-ORG/Northern Larkspur/50,000ft 50%	GS	Rehab	CIPP	4.7	25,000	1,800		4-8	CIPP/HDPE	150	Allowance for pipeburst/manholes due to size/condition	\$ 2,260,000
4	GB-18	GB	Greenbrae Basin 18 Rehabilitation	CIPP/GB/B18/C-ORG/GB Larkspur/40,000ft	GS	Rehab	CIPP	7.6	40,000	2,900		4-12	CIPP/HDPE	135	Allowance for pipeburst/manholes due to size/condition	\$ 3,616,000
5	RO-08	RO	Ross Basin 08 Rehabilitation	CIPP/RO/B08/C-ORG/Ross/10,200ft	GS	Rehab	CIPP	1.9	10,200	1,100		4-10	CIPP/HDPE	47	Allowance for pipeburst/manholes due to size/condition	\$ 1,023,000
6	SA-08	SA	San Anselmo Basin 08 Rehabilitation	CIPP/SA/B08/C-ORG/San Anselmo/18,700ft	GS	Rehab	CIPP	3.5	18,700	2,000		4-10	CIPP/HDPE	128	Allowance for pipeburst/manholes due to size/condition	\$ 1,875,000
7	KW-10	KW	Kent Woodlands Basin 10 Rehabilitation	CIPP/KW/B10/C-ORG/Goodhill/18,800 ft	GS	Rehab	CIPP	3.6	18,800	1,300		4-6	CIPP/HDPE	85	Allowance for pipeburst/manholes due to size/condition	\$ 1,700,000
<b>TOTAL</b>							<b>21.6</b>	<b>113,800</b>	<b>9,890</b>		<b>=</b>	<b>123,690</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 11,594,000</b>	

**RVSD Rolling 20 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 10 (2023)</b>																
1	CIP-19	SA	Sonoma/Nokomis Capacity Improvements	Sonoma/Nokomis Capacity Improvements	GS	Capacity	OC/MT	0.5	2,765	1,050		15	C905		Design & construction. Reevaluate after rehab Basin 06.	\$ 1,968,000
2	RVTL	RVSD	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Design 30%	TL	Rehab	ENG					18-42			Engineering design	\$ 600,000
3	LC-CM	GB	La Cuesta/Corte Morada Pipeline Improvements	La Cuesta/Corte Morada Pipeline Improvements	GS	Capacity	OC	0.4	2,100	1,500		8-12	C900		Includes engineering	\$ 700,000
4	RO-10	RO	Ross Basin 10 Rehabilitation	CIPP/RO/B10/C-ORG/Lagunitas/22,300 ft	GS	Rehab	CIPP	4.2	22,300	2,400		4-8	CIPP/HDPE	91	Allowance for pipeburst/manholes due to size/condition	\$ 2,236,000
5	GB-14	GB	Greenbrae Basin 14 Rehabilitation	CIPP/GB/B14/C-ORG/Greenbrae-Kentfield/33,400ft	GS	Rehab	CIPP	6.3	33,400	2,400		4-8	CIPP/HDPE	145	Allowance for pipeburst/manholes due to size/condition	\$ 3,019,000
6	FX-01-1	FX	Fairfax Basin 01 Rehabilitation	CIPP/FX/B01/C-GRN/Upper Fairfax/65,800ft 50%	GS	Rehab	CIPP	6.2	32,900	2,400		4-12	CIPP/HDPE	172	Allowance for pipeburst/manholes due to size/condition	\$ 2,974,000
7	SHECAP	RVSD	SHECAP Update	SHECAP Update - Rehabilitated Basins	PLAN	Planning	ENG					-			Flow monitoring, model update, project evaluation.	\$ 300,000
8	SSRMP	RVSD	SSRMP Update	SSRMP Update	PLAN	Planning	ENG					-			Hydraulic, structural, O&M condition, CIP update.	\$ 250,000
<b>TOTAL</b>							<b>17.7</b>	<b>93,465</b>	<b>9,750</b>		<b>=</b>	<b>103,215</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 12,047,000</b>	

**RVSD Rolling 20 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 11 (2024)</b>																
1	RVTL	KF	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer - Corte Madera Creek 60%	TL	Rehab	OC	0.7	3,420			42	HDPE	9		\$ 6,840,000
2	RVTL	KF	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Engineering Services During Construction	TL	Rehab	ENG					18-42				\$ 2,052,000
3	FX-01-2	FX	Fairfax Basin 01 Rehabilitation	CIPP/FX/B01/C-GRN/Upper Fairfax/65,800ft 50%	GS	Rehab	CIPP	6.2	32,900	2,400		4-12	CIPP/HDPE	172	Allowance for pipeburst/manholes due to size/condition	\$ 2,974,000
4	RO-09	RO	Ross Basin 09 Rehabilitation	CIPP/RO/B09&20/C-GRN/Ross/24,200ft	GS	Rehab	CIPP	4.6	24,200	1,700		4-12	CIPP	115	Allowance for pipeburst/manholes due to size/condition	\$ 2,188,000
<b>TOTAL</b>							<b>11.5</b>	<b>60,520</b>	<b>4,100</b>		<b>=</b>	<b>64,620</b>	<b>feet (Actual + Laterals + In Lieu)</b>			<b>\$ 14,054,000</b>

**RVSD Rolling 20 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 12 (2025)</b>																
1	RVTL	KF/RO	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer - Corte Madera Creek 40%	TL	Rehab	OC	0.4	2,260			42	HDPE	9		\$ 4,520,000
2	RVTL	KF/RO	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Engineering Services During Construction	TL	Rehab	ENG					18-42				\$ 1,356,000
3	SA-05-1	SA	San Anselmo Basin 05 Rehabilitation	CIPP/SA/B05/C-GRN/San Anselmo/44,340ft 50%	GS	Rehab	CIPP	4.2	22,150	1,600		4-12	CIPP/HDPE	130	Allowance for pipeburst/manholes due to size/condition	\$ 2,002,000
4	SA-05-2	SA	San Anselmo Basin 05 Rehabilitation	CIPP/SA/B05/C-GRN/San Anselmo/44,340ft 50%	GS	Rehab	CIPP	4.2	22,150	1,600		4-12	CIPP/HDPE	130	Allowance for pipeburst/manholes due to size/condition	\$ 2,002,000
5	FX-05	FX	Fairfax Basin 05 Rehabilitation	CIPP/FX/B05/C-GRN/Lower Fairfax/38,300ft	GS	Rehab	CIPP	7.3	38,300	2,700		4-12	CIPP/HDPE	200	Allowance for pipeburst/manholes due to size/condition	\$ 3,462,000
<b>TOTAL</b>							<b>16.1</b>	<b>84,860</b>	<b>5,900</b>		<b>=</b>	<b>90,760</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 13,342,000</b>	

**RVSD Rolling 20 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Year 13 (2026)</b>															
1	RVTL	ROSS VALLEY TRUNK SEWER	Ross Valley Trunk Sewer - San Anselmo/Sylvan	TL	Rehab	OC	1.0	5,390			36-42	HDPE	22		\$ 10,780,000
2	RVTL	ROSS VALLEY TRUNK SEWER	Ross Valley Trunk Sewer Engineering Services During Construction	TL	Rehab	ENG					18-42				\$ 3,234,000
3	PS14	PS 14 LARKSPUR PUMP STATION REHABILITATION	PS 14 Larkspur Pump Station Rehabilitation Design 50%	PS	Rehab	ENG									\$ 600,000
<b>TOTAL</b>							<b>1.0</b>	<b>5,390</b>			<b>=</b>	<b>5,390</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 14,614,000</b>

**RVSD Rolling 20 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Year 14 (2027)</b>															
1	RVTL	SA	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer - Downtown San Anselmo	TL	Rehab	OC	1.3	6,580			30-36	HDPE	27	\$ 13,160,000
2	RVTL	RO/SA	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Engineering Services During Construction	TL	Rehab	ENG					18-42			\$ 3,948,000
3	PS14	LK	PS 14 Larkspur Pump Station Rehabilitation	PS 14 Larkspur Pump Station Rehabilitation Design 50%	PS	Rehab	ENG								\$ 600,000
<b>TOTAL</b>							<b>1.3</b>	<b>6,580</b>			<b>=</b>	<b>6,580</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 17,708,000</b>

**RVSD Rolling 20 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$	
<b>Year 15 (2028)</b>																
1	RVTL	FX	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer - Fairfax	TL	Rehab	OC	0.9	5,010			18-30	HDPE	22	To Center Blvd x Forrest Ave	\$ 7,515,000
2	RVTL	FX	Ross Valley Trunk Sewer	Ross Valley Trunk Sewer Engineering Services During Construction	TL	Rehab	ENG					18-42				\$ 2,255,000
3	SH-03-1	SH	Sleepy Hollow Basin 03 Rehabilitation	CIPP/SH/B03/C-GRN/Sleepy Hollow/59,600ft 50%	GS	Rehab	CIPP	5.6	29,800	2,100		4-12	CIPP/HDPE	152	Allowance for pipeburst/manholes due to size/condition	\$ 2,694,000
4	SH-03-2	SH	Sleepy Hollow Basin 03 Rehabilitation	CIPP/SH/B03/C-GRN/Sleepy Hollow/59,600ft 50%	GS	Rehab	CIPP	5.6	29,800	2,100		4-12	CIPP/HDPE	152	Allowance for pipeburst/manholes due to size/condition	\$ 2,694,000
5	PS14	LK	PS 14 Larkspur Pump Station Rehabilitation	PS 14 Larkspur Pump Station Rehabilitation 50%	PS	Rehab	PS									\$ 2,000,000
6	PS15	KF	PS 15 Kentfield Pump Station Rehabilitation	PS 15 Kentfield Pump Station Rehabilitation Design 50%	PS	Rehab	ENG									\$ 600,000
<b>TOTAL</b>							<b>12.2</b>	<b>64,610</b>	<b>4,200</b>		<b>=</b>	<b>68,810</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 17,758,000</b>	

**RVSD Rolling 20 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Year 16 (2029)</b>															
1	FM1	GB/LK	SFD/FM 1 Ross Valley Interceptor Force Main	SFD/FM 1 Ross Valley Interceptor Force Main Replacement Design 30%	FM	Rehab	ENG					54	HDPE		\$ 2,155,000
2	PS14	LK	PS 14 Larkspur Pump Station Rehabilitation	PS 14 Larkspur Pump Station Rehabilitation Design 50%	PS	Rehab	PS								\$ 2,000,000
3	PS15	KF	PS 15 Kentfield Pump Station Rehabilitation	PS 15 Kentfield Pump Station Rehabilitation Design 50%	PS	Rehab	ENG								\$ 600,000
<b>TOTAL</b>											=			<b>feet (Actual + Laterals + In Lieu)</b>	<b>\$ 4,755,000</b>

**RVSD Rolling 20 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Year 17 (2030)</b>															
1	FM1	GB/LK	SFD/FM 1 Ross Valley Interceptor Force Main	SFD/FM 1 Ross Valley Interceptor Force Main Replacement Design 30%	FM	Rehab	ENG					54	HDPE		\$ 2,155,000
2	PS15	KF	PS 15 Kentfield Pump Station Rehabilitation	PS 15 Kentfield Pump Station Rehabilitation 50%	PS	Rehab	PS								\$ 2,000,000
<b>TOTAL</b>											=	<b>feet (Actual + Laterals + In Lieu)</b>			<b>\$ 4,155,000</b>

**RVSD Rolling 20 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Year 18 (2031)</b>															
1	FM1	GB/LK	SFD/FM 1 Ross Valley Interceptor Force Main	SFD/FM 1 Ross Valley Interceptor Force Main Replacement Design 40%	FM	Rehab	ENG					54	HDPE		\$ 2,873,000
2	PS15	KF	PS 15 Kentfield Pump Station Rehabilitation	PS 15 Kentfield Pump Station Rehabilitation 50%	PS	Rehab	PS								\$ 2,000,000
<b>TOTAL</b>											=	<b>feet (Actual + Laterals + In Lieu)</b>			<b>\$ 4,873,000</b>

**RVSD Rolling 20 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Year 19 (2032)</b>															
1	FM1	GB/LK	SFD/FM 1 Ross Valley Interceptor Force Main	SFD/FM 1 Ross Valley Interceptor Force Main Replacement 50%	FM	Rehab	OC	0.4	2,100			54	HDPE		\$ 18,900,000
2	FM1	GB/LK	SFD/FM 1 Ross Valley Interceptor Force Main	SFD/FM 1 Ross Valley Interceptor Force Main Engineering Services During Construction	FM	Rehab	ENG					54			\$ 5,670,000
<b>TOTAL</b>							<b>0.4</b>	<b>2,100</b>			<b>=</b>	<b>2,100</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 24,570,000</b>

**RVSD Rolling 20 Year Capital Improvement Plan (CIP)**

Updated: 12/14/2012 **DRAFT 12/14/12**

Number	Area	Project Name	Project Description	Type	Reason	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Year 20 (2033)</b>															
1	FM1	GB/LK	SFD/FM 1 Ross Valley Interceptor Force Main	SFD/FM 1 Ross Valley Interceptor Force Main Replacement 50%	FM	Rehab	OC	0.4	2,100			54	HDPE		\$ 18,900,000
2	FM1	GB/LK	SFD/FM 1 Ross Valley Interceptor Force Main	SFD/FM 1 Ross Valley Interceptor Force Main Engineering Services During Construction	FM	Rehab	ENG					54			\$ 5,670,000
<b>TOTAL</b>							<b>0.4</b>	<b>2,100</b>			<b>=</b>	<b>2,100</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 24,570,000</b>



**ROSS VALLEY SANITARY DISTRICT**

2960 Kerner Blvd

San Rafael, CA 94901

(415) 259-2949 ~ [rvsd.org](http://rvsd.org)

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**Item 6**

There is no Staff Report for this item

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**San Francisco Bay Regional Water Quality Control Board**

*Sent by email and Certified Mail  
Confirmation of receipt requested*

November 21, 2012  
Place ID: 630976 (mtc)

Sanitary District No. 1 of Marin County  
(a.k.a. Ross Valley Sanitary District)  
2960 Kerner Boulevard  
San Rafael, CA 94901

Attention: Ms. Wendy Martin-Miller  
Acting General Manager  
[wmiller@rvsd.org](mailto:wmiller@rvsd.org)

**Subject: Notice of Violation and Threatened Violation of Order No. 2006-0003-DWQ  
(Sanitary Sewer Order) for the Sanitary District No. 1 of Marin County Collection System**

Dear Ms. Martin-Miller:

The Sanitary District No. 1 of Marin County (District) is hereby given notice that it is in violation of, and threatens to violate, the above referenced Sanitary Sewer Order. On October 22 and 23, 2012, staff of the Regional and State Water Boards, and U.S. Environmental Protection Agency inspected District facilities. Based on evidence we gathered during and subsequent to the inspection, we allege that the District has violated the Sanitary Sewer Order. It has violated by discharging, and threatening to discharge, sanitary sewer overflows (SSOs) to waters of U.S. and State. It has also violated by failing to allocate adequate resources for the proper operation, maintenance, and repair of its collection system (notably for emergency repairs of failing pipes), thereby failing to do so, and failing to also provide adequate capacity to convey base and peak flows.

Pursuant to Water Code section 13267, this letter requires that by January 25, 2013, the District prepare and submit a technical report responding to the alleged violations, and propose a schedule for completion of necessary corrective actions. Additionally, the District shall provide status reports, due on the first business day of each calendar quarter, documenting its progress in completing corrective actions until the identified deficiencies are corrected. The first quarterly status report is due on April 1, 2013. Please direct these reports to the attention of Regional Water Board staff, Michael Chee.

## Applicable Requirements

The District operates and maintains a collection system subject to the Sanitary Sewer Order<sup>1</sup>. The District signed a notice of intent to comply with the terms of the Sanitary Sewer Order, and any subsequent amendments, on July 11, 2006. The Sanitary Sewer Order prohibits any SSO that results in a discharge of untreated or partially treated wastewater to waters of the United States or creates a nuisance as defined in Water Code section 13050(m) (see Prohibition C.1 and C.2 of the Sanitary Sewer Order, respectively).

The Sanitary Sewer Order also specifies provisions for which enrollees must comply as operators of a collection system. Specifically, enrollees shall take all feasible steps to eliminate SSOs (see Provision D.3 of the Sanitary Sewer Order). Enrollees must properly manage, operate, and maintain all parts of the collection system (see Provision D.8 of the Sanitary Sewer Order). Enrollees must also allocate adequate resources for the operation, maintenance, and repair of its collection system, by establishing a proper rate structure, accounting mechanisms, and auditing procedures to ensure adequate measure of revenues and expenditures (see Provision D.9 of the Sanitary Sewer Order).

Additionally, enrollees shall provide adequate capacity to convey base and peak flows (see Provision D.10 of the Sanitary Sewer Order), and prepare and implement a system evaluation and capacity assurance plan 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 (see Provision D.13(viii) of the Sanitary Sewer Order).

## Alleged Violations

- 1) As of July 20, 2011, the District is in violation of Provisions D.8 and D.9 of the Sanitary Sewer Order by approving a fiscal year (FY) 2011/2012<sup>2</sup> budget that did not allocate adequate resources for, and thus failing to ensure for, the proper operation, maintenance, and repair of its collection system.

In January 2007, the District prepared a Sewer System Replacement Master Plan (Sewer Master Plan) and Sewer Hydraulic Evaluation and Capacity Assurance Plan (SHECAP), which identified sewer rehabilitation needs as well as capital improvement projects that will provide adequate hydraulic capacity of key system elements for dry and wet weather conditions. Due to the age and condition of the District's system, the Sewer Master Plan recommended an aggressive rate of sewer pipe replacement of about 2 percent (or 4 miles per year).

At the April 7, 2011, Board Meeting, District staff proposed a sewer service rate increase from the current \$520 up to \$904 per year for five years. This sewer service rate increase would have provided revenue for the next five years to adequately fund the operation and

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<sup>1</sup> Sanitary Sewer Order is available at [http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/water\\_quality/2006/wqo/wqo2006\\_0003.pdf](http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2006/wqo/wqo2006_0003.pdf)

<sup>2</sup> The District's fiscal year is July 1 to June 30.

maintenance of the collection system and increase the current sewer pipe replacement rate of 2 miles per year to 4–5 miles per year. However, on July 20, 2011, the District Board instead approved a sewer service rate of \$638 for one year, which in effect deferred additional rehabilitation and capital improvement projects for one year.

Then on May 23, 2012, while the District Board approved a FY 2012/2013 budget which maintained the same sewer service rate as the previous fiscal year, it also provided an additional \$68 million from the sale of revenue bonds to fund rehabilitation work. However, on October 3, 2012, the District Board suspended the sale of revenue bonds and amended the budget to cease all capital improvement and rehabilitation projects. This amendment resulted in a FY 2012/2013 budget of \$19.9 million instead of \$41.6 million, a reduction of \$20.7 million.

Moreover by the end of FY 2011/2012, the District ceased additional needed emergency sewer pipe repair work due to insufficient funds. Based on District records obtained during our inspection, District staff had identified 799 gravity sewer mains (manhole to manhole sewer pipe) with at least one Grade 4 or 5 structural defect<sup>3</sup> as of September 30, 2012<sup>4</sup>. The District Board was informed of pipe locations needing immediate repair (a total of 56<sup>5</sup> pipe locations with Grade 5 structural defects) at its monthly Board meetings in 2011 and 2012. Before running out of FY 2011/2012 funds, the District completed or was nearing completion of the emergency repair work for 11 of the 12 pipe failure locations identified at the December 2011 Board meeting. The remaining 45 pipe failure locations needing urgent repair (i.e., with Grade 5 structural defects) have not been addressed and the District Board has taken no action to provide for adequate funds to address them. The District Board has also not taken action to provide for adequate funds to address the hundreds of other Grade 4 or 5 defective pipe segments in need of rehabilitation.

- 2) As of October 3, 2012, the District is in violation of Provisions D.10 and D.13(viii) of the Sanitary Sewer Order by amending its FY 2012/2013 budget that authorized zero dollars for implementation of its Sewer Master Plan and SHECAP. As noted in allegation 1 above, the District prepared a SHECAP which identified capital improvement projects that will provide hydraulic capacity of key system elements for dry and wet weather conditions. During FYs 2009/2010 and 2010/2011, the District budgeted adequate resources to implement the recommendations of the SHECAP. For FY 2011/2012, the District budgeted for projects currently under construction, but deferred any additional capital improvement and rehabilitation projects for one year, as noted in allegation 1. Then, as previously noted, on October 3, 2012, the District Board amended its budget to cease all capital improvement and rehabilitation projects.

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<sup>3</sup> Based on a national industry-standard sewer pipe condition assessment system, the defects of a sewer pipe represent current failure or a very high likelihood of failure within five years (Grade 5) to ten years (Grade 4).

<sup>4</sup> Data based on condition assessment conducted on 40 percent of the District's gravity sewer system (or approximately 78 miles of a total 194 miles of gravity sewer pipe).

<sup>5</sup> At the December 2011 District Board meeting, the Board was informed of 12 pipe failure locations; at the January, February, March and April 2012 District Board meetings, the Board was informed of an additional 44 pipe locations needing urgent repair.

- 3) The District violated Prohibition C.1 and C.2 of the Sanitary Sewer Order. From April 21, 2011, to October 31, 2012, the District reported a total of 36 SSOs (see Attachments A and B) from the District's collection system to the State's online SSO system, the California Integrated Water Quality System (CIWQS). These 36 SSOs are in violation of Prohibition C.1 of the Sanitary Sewer Order. Of the total, 10 SSOs (or 28 percent) were Category 1<sup>6</sup>, and 26 SSOs (or 72 percent) were Category 2<sup>7</sup>. The 10 Category 1 SSOs that reached waters of the U.S. are violations of Prohibition C.1 of the Sanitary Sewer Order.
- 4) The District threatens to violate Prohibitions C.1 and C.2., and Provision D.3 of the Sanitary Sewer Order by failing to properly manage, operate, and maintain parts of its collection system. As described in allegation 1, above, there are currently 45 pipe failure locations in need of urgent repair. If these failure locations are not repaired, it is likely that significant Category 1 SSOs would occur during the upcoming wet weather season. If not addressed, these failure locations could result in the formation of sinkholes that are a public health and safety hazard.

### **Basis for Requirements in this Investigatory Order**

The violations summarized above provide the basis of this investigatory order to provide technical reports. The reports are necessary for the Regional Water Board to determine the state of compliance at the facility, the potential or actual harm to human health or the environment, and whether the existing waste discharge requirements are adequate to protect beneficial uses. The burden, including costs of the reports, bears a reasonable relationship to the need for the reports and the benefits to be obtained from them.

Please note that compliance with the requirements of this letter does not preclude further enforcement action for the violations alleged in this notice. The Regional Water Board reserves its rights to fully enforce any violation as authorized by law. Such enforcement actions can include a cease and desist order, time schedule order, administrative civil liabilities, and referral to the State Attorney General. Administrative liabilities may be assessed beginning with the date that the violations first occurred, and not as of the date of this notice. These liabilities can be up to \$10 per gallon and/or \$1,000 to \$10,000 per day per violation pursuant to Water Code sections 13350(e), 13385, and/or 13268. One factor used in determining a liability amount is a discharger's history of violations. Here, the conduct described in Order R2-2012-0055 would serve as prior violations to consider for the purposes of enforcement.

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<sup>6</sup> A Category 1 SSO must equal or exceed 1,000 gallons; or result in a discharge to a drainage channel and/or surface water; or discharge to a storm drainpipe that was not fully captured and returned to the collection system.

<sup>7</sup> A Category 2 SSO is any discharge of sewage resulting from a failure in the District's collection system, which is not designated as a Category 1 SSO.

Should you have any questions regarding this matter, please contact Michael Chee via e-mail at [mchee@waterboards.ca.gov](mailto:mchee@waterboards.ca.gov) or by telephone at (510) 622-2333.

Sincerely,

Dyan C. Whyte  
Assistant Executive Officer

Attachment A: List of Category 1 SSOs

Attachment B: List of Category 2 SSOs

Copy to (via e-mail):

Victor Lopez, State Water Board, DWQ – [vlopez@waterboards.ca.gov](mailto:vlopez@waterboards.ca.gov)

Laura Drabandt, Staff Counsel, State Water Board, OE – [ldrabandt@waterboards.ca.gov](mailto:ldrabandt@waterboards.ca.gov)

Ken Greenberg, USEPA Region IX – [greenberg.ken@epa.gov](mailto:greenberg.ken@epa.gov)

## ATTACHMENT A



California Integrated Water Quality System Project (CIWQS)

SSO Public Report - Detail Page

Here is the detail page of your SSO public report search for the selected region, responsible agency, or collection system. These results correspond to the following search criteria:

SEARCH CRITERIA: [\[REFINE SEARCH\]](#)

- Collection System (san dist)
- Spill Type (sso\_cat1)
- Start Date (04/21/2011)
- End Date (10/30/2012)

The table below presents important details for all sewage discharge locations, as submitted through individual SSO reports, which meet the search criteria selected. If data is not shown for a particular field, it means the Enrollee did not provide the information and was not required to do so. To view the entire SSO report for a specific sewage discharge location, please select the corresponding EVENT ID.

DRILLDOWN HISTORY: [\[GO BACK TO SUMMARY PAGE\]](#)

REGION: 2

[\[VIEW PRINTER FRIENDLY VERSION\]](#)

<a href="#">EVENT ID</a>	<a href="#">Region</a>	<a href="#">Responsible Agency</a>	<a href="#">Collection System</a>	<a href="#">SSO Category</a>	<a href="#">Start Date</a>	<a href="#">SSO Address</a>	<a href="#">SSO City</a>	<a href="#">SSO Vol</a>	<a href="#">Vol of SSO Recovered</a>	<a href="#">Vol of SSO Reached Surface Water</a>	<a href="#">SSO Failure Point</a>	<a href="#">WDID</a>
<a href="#">772169</a>	2	Sanitary District #1 of Marin	San Dist #1 of Marin CS	Category 1	2011-10-17 18:30:00.0	2107 Sir Francis Drake Boulevard	Fairfax	1,000	800	0	Main	2SSO10172
<a href="#">775593</a>	2	Sanitary District #1 of Marin	San Dist #1 of Marin CS	Category 1	2011-12-26 00:00:00.0	7 Woodhaven Road	Ross	4,200	200	4,200	Main	2SSO10172
<a href="#">776814</a>	2	Sanitary District #1 of Marin	San Dist #1 of Marin CS	Category 1	2012-02-01 14:00:00.0	133 Poplar Drive	Kentfield	400	0	400	Main	2SSO10172
<a href="#">777790</a>	2	Sanitary District #1 of Marin	San Dist #1 of Marin CS	Category 1	2012-02-18 17:45:00.0	36 Melville Avenue	San Anselmo	600	50	0	Main	2SSO10172
<a href="#">778999</a>	2	Sanitary District #1 of Marin	San Dist #1 of Marin CS	Category 1	2012-03-16 12:00:00.0	28 Crest Road	San Anselmo	1,100	0	0	Main	2SSO10172
<a href="#">781340</a>	2	Sanitary District #1 of Marin	San Dist #1 of Marin CS	Category 1	2012-05-14 00:00:00.0	17 Frances Avenue	Larkspur	1,700	250	1,200	Main	2SSO10172
<a href="#">781767</a>	2	Sanitary District #1 of Marin	San Dist #1 of Marin CS	Category 1	2012-05-26 19:30:00.0	432 Woodland Avenue	Kentfield	4,320	0	4,000	Main	2SSO10172
<a href="#">782965</a>	2	Sanitary District #1 of Marin	San Dist #1 of Marin CS	Category 1	2012-07-03 13:50:00.0	50 Bon Air Center	Greenbrae	1,000	800	100	The 90 sheared off at the bottom of the ARV which resulted in sewer being discharge out of a 2" pipe. Valves were immediately closed and the pump station was turned off to stop the manhole from overflowing.	2SSO10172
<a href="#">786281</a>	2	Sanitary District #1 of Marin	San Dist #1 of Marin CS	Category 1	2012-09-15 11:00:00.0	35 San Francisco Boulevard	San Anselmo	1,036	2	1,034	Main	2SSO10172
		Sanitary District #1 of Marin	San Dist #1 of Marin CS	Category 1	2012-10-	64 woodside	San					

[787717](#)    2    District #1 of #1 of Marin    1    26    Drive    Anselmo    87,776    1,250    86,526    Main 2SSO10172  
Marin    CS    08:00:00.0

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Page 1 of 1

Go To Page:    25    Records/Page  
1

The current report was generated with real-time data entered by Enrollees.

[Back to Main Page](#) | [Back to Top of Page](#)

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## ATTACHMENT B



California Integrated Water Quality System Project (CIWQS)

SSO Public Report - Detail Page

Here is the detail page of your SSO public report search for the selected region, responsible agency, or collection system. These results correspond to the following search criteria:

SEARCH CRITERIA: [\[REFINE SEARCH\]](#)

- Collection System (san dist)
- Spill Type (sso\_cat2)
- Start Date (04/21/2011)
- End Date (10/30/2012)

The table below presents important details for all sewage discharge locations, as submitted through individual SSO reports, which meet the search criteria selected. If data is not shown for a particular field, it means the Enrollee did not provide the information and was not required to do so. To view the entire SSO report for a specific sewage discharge location, please select the corresponding EVENT ID.

DRILLDOWN HISTORY: [\[GO BACK TO SUMMARY PAGE\]](#)

REGION: 2

[\[VIEW PRINTER FRIENDLY VERSION\]](#)

<a href="#">EVENT ID</a>	<a href="#">Region</a>	<a href="#">Responsible Agency</a>	<a href="#">Collection System</a>	<a href="#">SSO Category</a>	<a href="#">Start Date</a>	<a href="#">SSO Address</a>	<a href="#">SSO City</a>	<a href="#">SSO Vol</a>	<a href="#">Vol of SSO Recovered</a>	<a href="#">Vol of SSO Reached Surface Water</a>	<a href="#">SSO Failure Point</a>	<a href="#">WDID</a>
<a href="#">786365</a>	2	Sanitary District #1 of Marin	San Dist #1 of Marin CS	Category 2	2012-09-18 12:00:00.0	506 Sequoia Drive	San Anselmo	25	0	0	Main	2SSO10172
<a href="#">786203</a>	2	Sanitary District #1 of Marin	San Dist #1 of Marin CS	Category 2	2012-09-07 11:30:00.0	78 Mountain View Road	Fairfax	50	0	0	Main	2SSO10172
<a href="#">785877</a>	2	Sanitary District #1 of Marin	San Dist #1 of Marin CS	Category 2	2012-09-03 08:00:00.0	201 Evergreen Drive	Kentfield	200	0	0	Main	2SSO10172
<a href="#">785121</a>	2	Sanitary District #1 of Marin	San Dist #1 of Marin CS	Category 2	2012-07-13 00:00:00.0	10 Ivy Lane	San Anselmo	10	0	0	Main	2SSO10172
<a href="#">783393</a>	2	Sanitary District #1 of Marin	San Dist #1 of Marin CS	Category 2	2012-07-10 07:30:00.0	400 Woodland Road	Kentfield	900	100	0	Main	2SSO10172
<a href="#">782135</a>	2	Sanitary District #1 of Marin	San Dist #1 of Marin CS	Category 2	2012-06-11 19:02:00.0	253 Los Angeles Boulevard	San Anselmo	5	0	0	Lower Lateral	2SSO10172
<a href="#">781077</a>	2	Sanitary District #1 of Marin	San Dist #1 of Marin CS	Category 2	2012-05-07 00:00:00.0	24 Forest Court	San Anselmo	100	0	0	Main	2SSO10172
<a href="#">779768</a>	2	Sanitary District #1 of Marin	San Dist #1 of Marin CS	Category 2	2012-04-05 17:25:00.0	2501 Sir Francis Drake Boulevard	Fairfax	360	150	0	Main	2SSO10172
<a href="#">779313</a>	2	Sanitary District #1 of Marin	San Dist #1 of Marin CS	Category 2	2012-03-30 08:00:00.0	130 Barber Avenue	San Anselmo	200	0	0	Main	2SSO10172
<a href="#">778670</a>	2	Sanitary District #1 of Marin	San Dist #1 of Marin CS	Category 2	2012-03-14 10:00:00.0	7 Quisisanna Drive	Kentfield	50	0	0	Main	2SSO10172
<a href="#">776334</a>	2			Category 2			San Anselmo	15	15	0	There was an issue in our main and a couple hundred down, a homeowner was still backup even though our mainline was cleared. A	2SSO10172
		Sanitary District #1 of Marin	San Dist #1 of Marin		2012-01-23	1000 Sir Francis Drake						



January 24, 2013

***Via Electronically Only***

Mr. Michael Chee  
San Francisco Bay Regional Water Quality Control Board  
1515 Clay Street, 14th Floor  
Oakland, CA 94612  
[MChee@waterboards.ca.gov](mailto:MChee@waterboards.ca.gov)

RE: Response to Notice of Violation and Threatened Violation of Order  
No. 2006-0003-DWQ (Sanitary Sewer Order) for the Sanitary District No. 1 of Marin  
County Collection System

Dear Mr. Chee:

Somach Simmons & Dunn (“SSD” or “we”) has recently been engaged to assist Sanitary District No. 1 of Marin County (a.k.a., Ross Valley Sanitary District) (hereafter referred to as “RSVD” or “District”) in responding to the November 21, 2012 *Notice of Violation and Threatened Violation of Order No. 2006-0003-DWQ (Sanitary Sewer Order) for the Sanitary District No. 1 of Marin County* (“NOV”), issued by you. SSD has been engaged by the District’s General Counsel, and is working with them on the District’s behalf. As part of the NOV, the District is required to prepare and submit a Technical Report pursuant to an order issued under section 13267 of the California Water Code by January 25, 2013. Further, on December 19, 2012, your legal counsel, Ms. Laura Drabandt, sent an email communication to the District’s General Counsel (Mr. Christian Picone) requesting clarification on three specific issues, and requested that responses to these three specific issues be included in the District’s Technical Report due on January 25, 2013.

In compliance with the terms of the NOV, and in response to the December 19, 2012 email communication from Ms. Drabandt, the District hereby submits the enclosed Technical Report as prepared by Ms. Vivian Housen of V. W. Housen and Associates, and Resolution No. 13-1458, as adopted by the RSVD Board of Directors on January 23, 2013. Resolution No. 13-1458 indicates that the Board of Directors has approved the Technical Report as prepared by Ms. Housen, and commits to implementing the recommendations on the proposed time schedule contained within the Technical Report. With these two documents, the District believes that it has responded to, and has met the terms of the NOV.

To provide some brief background with respect to the Technical Report and Board Resolution being submitted, additional explanation is provided here. Generally, the District's General Counsel determined that it would be appropriate to seek outside professional and independent assistance to respond to the NOV issued by you. Accordingly, the District's General Counsel, with support from the Board of Directors, hired Ms. Housen to conduct a preliminary assessment of the District's sewer system based on existing data and information. Ms. Housen is an expert in this field and has over 25 years of experience in assessing sewer collection systems, and in developing capital improvement programs for ensuring that sewer systems comply with the terms of Order No. 2006-0003-DWQ, and that such systems are properly managed, maintained, and repaired. The results of Ms. Housen's review, and her professional recommendations are contained in the Technical Report, which was submitted to the District Board for review and acceptance.

The District Board then reviewed a draft of the Technical Report at its January 23, 2013 meeting. After reviewing the draft Technical Report in detail, the District Board adopted Resolution No. 13-1458, which in turn accepts the Technical Report as the District's response to the NOV, and conveys the Board's commitment to implementing the recommendations as set forth in the Technical Report. Thus, the Technical Report conveys the District's specific actions that will be taken to ensure compliance with Order No. 2006-0003-DWQ.

Please be assured, the District Board takes very seriously the NOV, its duties to properly maintain and repair the District's assets, as well as its duty to provide adequate funding to do so. To that end, and to help the District move forward in a responsible manner, the District recently conducted a search to replace its previous General Manager, who resigned on July 25, 2012. Based on that search, the District is pleased to inform the Regional Board that this activity has recently concluded with the hiring of Mr. Greg Norby as its Interim General Manager. Mr. Norby signed an employment agreement on January 16, 2013, and will officially start at the District on February 15, 2013. Mr. Norby comes to the District as an experienced General Manager who most recently served as General Manager to the Mammoth Community Water District, which provides both water and wastewater services to the community of Mammoth, for over four years.

Due to the transition period currently occurring at the District, the District requests that any immediate communication that must necessarily be conducted prior to February 15, 2013, when Mr. Norby officially begins, be conveyed from Regional Board staff to District staff directly through the Regional Board's legal counsel to me. This will help to alleviate any confusion that might otherwise occur during this time of transition. Accordingly, should Regional Board staff have any questions with respect to the enclosed documents, please do not hesitate to have your legal counsel contact me directly at (916) 469-3847, or via email at tdunham@somachlaw.com. Further, in addition to the documents enclosed herewith, we will deliver to your legal counsel a disc that contains electronic copies of all technical documents

Mr. Michael Chee  
Re: Response to NOV of Order No. 2006-0003-DWQ  
January 24, 2013  
Page 3

referenced in the Technical Report that were relied on by Ms. Housen in preparation of the Technical Report.

Further, on behalf of the District, I hereby request that a meeting between Regional Board staff and appropriate District representatives, including legal counsel for both, be arranged in the very near future to discuss the District's plans for moving forward as set forth in the Technical Report and approved by Resolution No. 13-1458. It is the District's desire to work closely with Regional Board staff to provide them with proper assurance that the District is taking all actions necessary to ensure compliance with Order No. 2006-0003-DWQ, and a meeting in this regard may be helpful should Regional Board staff have any outstanding questions.

Thank you for your consideration and I look forward to hearing from your legal counsel in the near future.

Sincerely,



Theresa A. Dunham

Encs.

cc (via electronically only):

- Laura Drabandt, State Water Board, Office of Enforcement (ldrabandt@waterboards.ca.gov)
- Ms. Dyan Whyte, Regional Board (dwhyte@waterboards.ca.gov)
- Victor Lopez, State Water Board, DWQ (vlopez@waterboards.ca.gov)
- Ken Greenberg, USEPA Region IX (Greenberg.ken@Epa.gov)
- Jolie Houston, Berliner-Cohen (Jolie.Houston@berliner.com)
- Christian Picone, Berliner-Cohen (Christian.Picone@berliner.com)
- Wendy Martin-Miller, Acting General Manager (wmiller@rvsd.org)
- Greg Norby, Incoming Interim General Manager (gregnorby@gmail.com)

TAD:cr

## TECHNICAL MEMORANDUM

DATE: January 23, 2013

TO: Frank Egger, President of the Board of Directors  
Sanitary District No. 1 of Marin County (a.k.a. Ross Valley Sanitary District)

FROM: Vivian Housen, R.C.E. #46324

SUBJECT: Initial Sewer System Assessment Prepared in Response to Regional Water Quality Control Board Notice of Violation dated November 21, 2012

### I. BACKGROUND

On November 21, 2012, a Notice of Violation and Threatened Violation (NOV) of Order No. 2006-0003-DWQ (Sanitary Sewer Order) for the Sanitary District No. 1 of Marin County (District) Collection System was issued by the San Francisco Bay Regional Water Quality Control Board (RWQCB). The NOV required the submittal of a Technical Report by Friday, January 25, 2013 to address four issues described in the NOV. On December 19, 2012, the Regional Board submitted three supplemental questions and asked that the District<sup>1</sup> provide answers to these questions as part of the Technical Report. To appropriately and timely respond to the NOV, the District Board sought outside assistance. Further, as part of its response, the District Board determined that it was necessary to obtain an objective third-party assessment (Assessment) of the condition of its sanitary sewer system. This Technical Memorandum summarizes the third party assessment and comprises the requested Technical Report (Report).

This Report was developed based on past (2006 to present) technical studies and financial documents that are available in electronic format as a supplement to this Report, as well as additional system information provided by and discussed with District staff between January 7 and January 18, 2013. The information in this Report has been reviewed and discussed with the District, and comments have been incorporated to the extent that it was determined appropriate. However, because this study provides updated information to build upon previously-completed assessments, some aspects of this report present a different representation of system condition, rehabilitation, and funding needs than previously discussed and documented by the District. As requested, responses to the supplemental questions are highlighted in **bold print** in this Report.

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<sup>1</sup> Throughout this report, the term "District" has been used interchangeably to mean the District Board or District staff.

System evaluations require a longer period of data gathering and analysis than the time that was available to complete this Assessment. In order to address the issues presented in the NOV and follow-up correspondence, this Report presents the results of an initial, focused study that was designed to meet the following objectives:

- Identify the key issues that, if addressed, would have the greatest near-term potential to reduce SSOs in terms of number and volume, and recommend an implementation plan, including an estimate of needed funding, to address these issues as described in the NOV.
- Provide sufficient information on overall system needs to establish an understanding of the extent of capital improvements and SSMP-related best practices for regular maintenance that will be required over the next ten years.
- Describe the additional recommended activities that are needed for completion in calendar year 2013 to further refine the information gained through this study.

Attached to this Report is a draft scope of work for an Infrastructure Asset Management Plan (IAMP), which is described further in Section II. The IAMP is the proposed tool to finalize the initial recommendations that are provided in this Report. The scope is in draft form, and can be revised to include suggestions from the RWQCB. It is recommended that the District implement the IAMP beginning in February 2013. Results would be available within seven months after the project begins.

The Report comprises the following sections, and follows the outline that is presented in the November 21 NOV:

- I. Background
- II. Resource Allocation for Rehabilitation and Replacement
- III. Capacity Improvement Strategy
- IV. Sewer System Overflow (SSO) Reduction Strategy
- V. Immediate Actions Planned for 45 pipes with Grade 5 Defects
- VI. Summary and Next Steps
- VII. Certification

## II. RESOURCE ALLOCATION FOR REHABILITATION AND REPLACEMENT

Issue 1. The RWQCB alleges that the District has violated Provisions D.8 and D.9 of Order No. 2006-0003-DWQ (Sanitary Sewer Order) and has not allocated adequate resources for, and has thus failed to ensure for, the proper operation, maintenance, and repair of its collection system. The basis of this statement is a comparison of budgets and expenditures, and an understanding of system condition as relayed in monthly Board meetings in 2011 and 2012.

Provisions D.8 and D.9 of the Sanitary Sewer Order require the following:

- D.8. The Enrollee shall properly, manage, operate, and maintain all parts of the sanitary sewer system owned or operated by the Enrollee, and shall ensure that the system operators (including employees, contractors, or other agents) are adequately trained and possess adequate knowledge, skills, and abilities.
- D.9. The Enrollee shall allocate adequate resources for the operation, maintenance, and repair of its sanitary sewer system, by establishing a proper rate structure, accounting mechanisms, and auditing procedures to ensure an adequate measure of revenues and expenditures. These procedures must be in compliance with applicable laws and regulations and comply with generally acceptable accounting practices.

### Key Points in District's Response to Issue No. 1

The NOV relies on the original FY2012/13 capital budget as a representation of system needs, and then states that the District's revisions to this budget indicate that the District has not allocated sufficient funds to properly manage the sewer system. As explained further in this Report, the District's FY2012/2013 budget adjustment appears to have been a one-time event. Since at least 2007 (the earliest timeframe that was reviewed for this Report), the District has consistently implemented capital improvement projects. Therefore, placing capital improvements on hold for one year should not compromise the District's ability to properly manage the sewer system, as long as the District continues to pursue repair of the 45 PACP Structural Grade 5 defects (45 Grade 5 pipes) that are discussed in the NOV, as well as any other urgent projects that are identified in the early stages of the proposed IAMP. Also, the District's capital improvement program should resume as planned in FY2013/14.

The original FY2012/2013 budget allocated \$18.6M to the capital needs of the District; \$16.3M of this amount was allocated to pipeline work. The Assessment briefly reviewed the basis for this budget, which appears to have exceeded the optimal level of system rehabilitation that could have been planned for that year. Using the values presented in the budget document, it appears that approximately half of the pipeline budget was allocated to basin-wide lining using cured-in-place pipe, and the remaining pipeline budget was allocated for pipe replacements, for a total rehabilitation objective of 21 miles of pipe. A review of the District's CCTV inspection ratings indicates that less than 15 percent of the inspected pipes require full replacement within five

years, and over half of the inspected pipes may require no action in the next ten or more years. By implementing a basin-wide rehabilitation approach, the proposed program may have replaced and/or lined pipes that were not yet near the end of their service life. As such, the proposed program likely exceeded the level of funding that would have been required to effectively maintain the system. Therefore, the FY2012/2013 budget should not be used to establish a new funding threshold for acceptable system management.

The District agrees that portions of the system require action immediately, while other portions of the system will need to be addressed within five to ten years, and other portions beyond the ten year timeframe. The District also understands and supports the need for a proactive program of rehabilitation and replacement to reduce SSOs and ensure a sustainable system. **The District's commitment to these objectives is evident by its capital project history, which includes the completion of \$27M in capital improvements, as well as closed circuit television (CCTV) inspection of over half of the system in the past five years<sup>2</sup>.**

It is recommended that the District update its existing capital planning documents and approach by implementing the proposed IAMP project in February 2013. The IAMP would provide a capital replacement strategy that is structured to reduce SSOs in number and volume, and also meet other concerns stated in the NOV now, and defer other less urgent capital improvements to a future date. Using this approach, the District would establish a sustainable infrastructure asset management program that has the greatest opportunity to reduce risk while also managing cost to the ratepayer.

The proposed IAMP scope includes a plan that replaces the 45 Grade 5 pipes<sup>3</sup> in two phases, with Phase I completing in December 2013 and Phase II in April 2014. The proposed IAMP scope also develops a plan to address the 799 additional mains (actually 737 – see footnote) with at least one PACP Structural Grade 4 or 5 defect (737 Grade 4 and 5 pipes),<sup>4</sup> as referenced in the NOV, within a 5- to 10-year timeframe. In addition, the IAMP would provide the District with a longer term implementation and funding strategy that would continue this program of active system maintenance and management.

## Review of Historical Budgets and FY2012/2013 Resource Allocation

Between FY2006/2007 and FY2011/2012, the District allocated sufficient funds to manage a typical, 200-mile sewer collection system of similar age and condition to the District's system. The District's planning documents provided justification to support the level of funding that was

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<sup>2</sup> December 19, 2012 Supplemental Questions from RWQCB, Question 3 (progress on long-term capital improvement projects).

<sup>3</sup> Based on descriptions provided by District staff, it is assumed that each of these segments requires replacement from manhole to manhole.

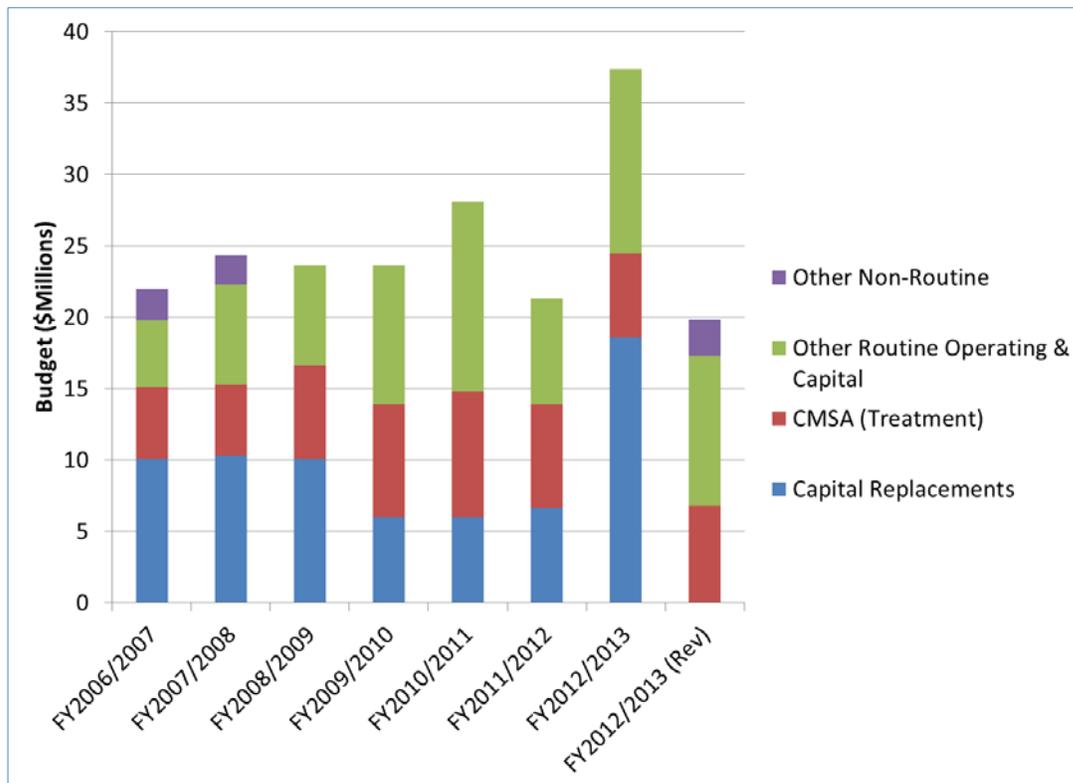
<sup>4</sup> District staff have determined that there is an overlap between the 45 Grade 5 pipes and 799 Grade 4 and 5 pipes. The actual number of Grade 4 and 5 pipes is 737. Based on CCTV inspection data, this group includes pipes requiring point repairs, as well as pipes requiring replacement from manhole to manhole. These pipes are included in the summaries that are presented in Section II.

provided through these years. For example, the District’s Sewer System Replacement Master Plan (SSRMP, 2007) and associated CIP-TM4 (TM4, 2007) established a capital improvement program (CIP) that averaged \$6.1M annually and provided for approximately 27 miles of pipe replacement over a ten-year period. At the time of development, this level of capital budgeting was consistent with or greater than typical capital budgets established by other Bay Area agencies similar in size to the District.

The District’s annual budgets from FY2006/2007 to FY2011/2012 provided a line item budget for pipeline replacements that was consistent with an objective of approximately two miles of pipe replacement annually.

Information from the District’s adopted budgets is presented graphically in Figure 1. The associated documents are available through the District’s website (<http://rvsd.org/about-us/financial-information>) and included in electronic format with this Report.

**Figure 1. Budget Allocations from FY2006/2007 through FY2012/2013**



As shown in Figure 1, in FY2012/2013, the District’s budgeting approach changed. The adopted budget for capital improvements increased from \$6.6M in FY2011/12 to \$18.6M in FY2012/13. Of this amount, \$16.3M was allocated to pipeline replacements. The budget document describes the replacement or rehabilitation of 21 miles of pipe, or over ten percent of the system within a

single fiscal year. Rehabilitation is described as the installation of cured-in-place pipe lining in 6-inch diameter pipes on a basin-wide basis.

The District Board was unable to reach consensus on this approach, apparently due to the complex issues associated with the required funding needs and associated rate increases. As a result, the District did not secure funding for this accelerated capital improvement program and, in October 2012, amended this budget to \$19.9M. This amendment essentially returned the overall budget to a level that was closer to the adopted budget from FY2011/2012. To exacerbate matters, during FY2012/2013, the District lost historical revenue from the California Department of Corrections and Rehabilitation (CDCR) facility known as San Quentin State Prison.

As a one-time adjustment to accommodate existing budget shortfalls that were in part the result of emergency repairs and settlement costs for several legal actions, as part of the amendment, budget allocations were moved from the capital category to the operations and maintenance (O&M) category. This adjustment is not expected to be repeated. The District has had a successful record of implementing capital projects, having completed over \$27M in system-wide capital improvements in the past five years. Also, the District has recently discussed at length the need to fund additional capital improvements and provide a reserve for similar unplanned expenditures in future years.

It is recommended that the District evaluate the root cause of these recent budget shortfalls, and correct the associated issues, in conjunction with securing a loan or other immediately available funding. This action would enable the District to move the reallocated budget back into the capital expenditure category in future years. Further, it is recommended that the District document this effort by developing a near-term financing plan, and by submitting this plan to the RWQCB along with the first required quarterly report, which is due on April 1, 2013. The near-term plan would include a strategy to assure sufficient funding to address the 45 Grade 5 pipes by June 2014<sup>5</sup>.

## Preliminary Gravity System Condition Assessment

In 2006 and 2007, the District completed several comprehensive planning documents to establish the general parameters for rehabilitation and replacement, and more specific recommendations for pump station, forcemain, and capacity improvements. These planning documents are referenced in this Report as the Sewer Hydraulic Evaluation and Capacity Assurance Plan (SHECAP) and Sewer System Replacement Master Plan (SSRMP). These documents are available for review through the District's website (<http://rvsd.org/about-us/planning-and-capital-improvements>) and included in electronic format with this Report.

Since approximately 2007, the District has conducted closed circuit television (CCTV) inspection of approximately 50 percent of the documented gravity system by length. This information,

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<sup>5</sup> December 19, 2012 Supplemental Questions from RWQCB, Question 2 (specific funding addressing Grade 5 repair work)

supplemented by SSO records as available through the California Integrated Water Quality Control System (CIWQS), was used for this Assessment.

The District uses National Association of Sewer Service Companies (NASSCO) Pipeline Assessment and Certification Program (PACP) CCTV inspection ratings to plan and prioritize pipeline rehabilitation and replacements. District staff have explained that they did not perform an overall condition assessment of the system using this data. Rather, the video for each pipe segment was analyzed based on the condition ratings found for that segment. The condition ratings for each of the segments that were inspected were then used to identify and prioritize pipes in need of repair, and also to determine the appropriate rehabilitation method for each pipe segment.

This approach appears to have focused the District's attention on individual pipe segments and their associated defects, which then appeared to have led to the conclusion that the District should accelerate the reduction of inflow and infiltration (I&I) through a basin-wide pipe lining program. This conclusion contributed to the increase in budgeted capital expenditures from \$6.6M in FY2011/2012 to \$18.6M in the original FY2012/13 budget.

The Assessment used a different approach, and reviewed the pipeline condition ratings in the context of evaluating overall system replacement trends and needs, in addition to individual pipeline needs. CCTV condition rating information for the inspected pipes is presented in graphical form in Figure 2, on the following page.

This information represents the condition of approximately fifty percent of the system by length. General conclusions regarding pipeline replacement timeframes were developed from this data for the Assessment, based on NASSCO guidelines for replacement, which are as follows:

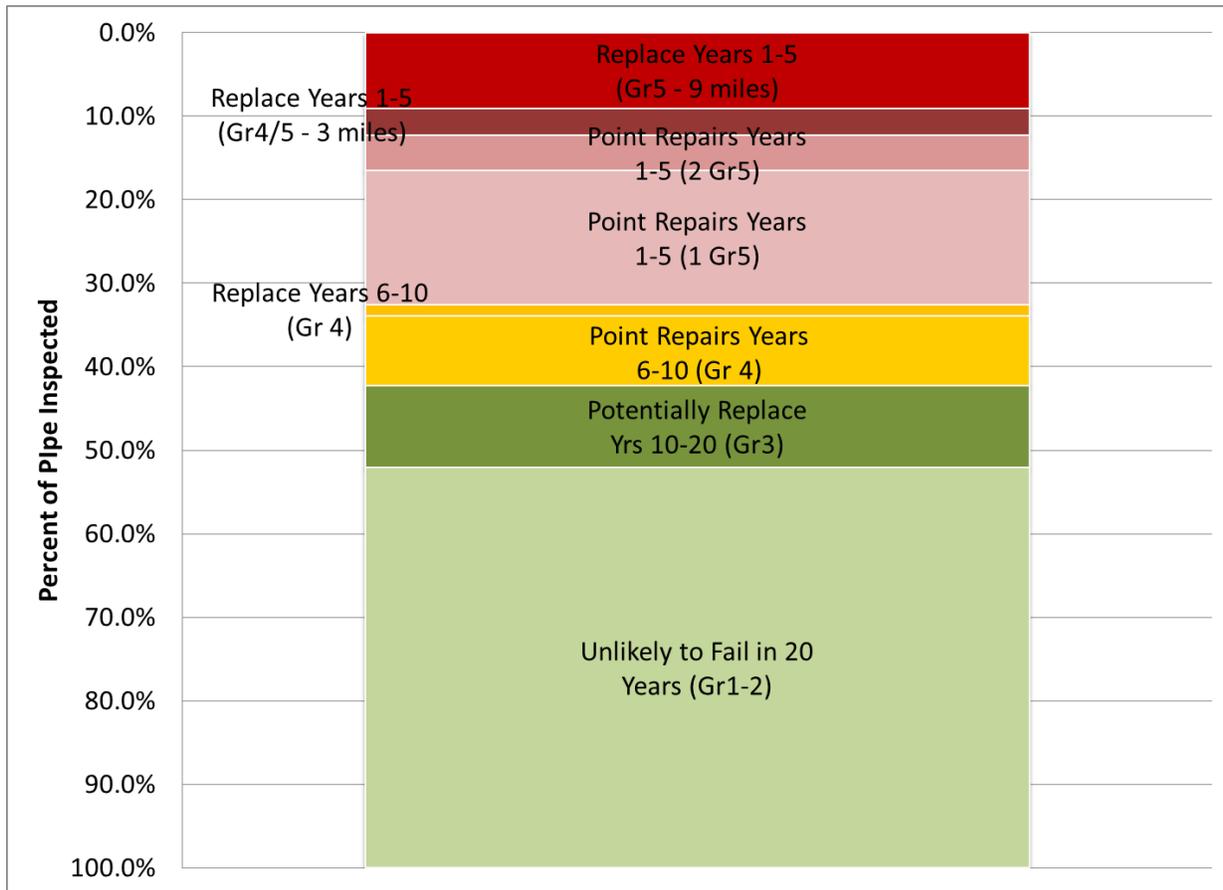
- Structural PACP Grade 5: Likely failure within 5 years
- Structural PACP Grade 4: Likely failure within 10 years
- Structural PACP Grade 3: Possible failure in 10 to 20 years
- Structural PACP Grades 1 or 2: Pipe unlikely to fail for at least 20 years

Based on the District's CCTV inspection rating database (i.e. report of NASSCO PACP "Quick Ratings"), which comprises inspections for approximately half of the gravity collector sewers, the District should have approximately twelve miles of pipe with multiple PACP Structural Grade 5 defects. Two thirds of these pipes also have multiple Grade 4 defects. Following NASSCO replacement guidelines, these pipes should require replacement within five years.

The location and proximity of pipes will determine the actual footage to be replaced. For example, two non-adjacent pipe segments with multiple PACP Grade 4 and 5 defects may be separated by a pipe segment with only PACP Grade 4 defects. In a situation such as this, the District would be likely to replace all three segments as part of the same construction contract. In addition, approximately 20 percent of the inspected pipe segments have one or two isolated Grade

5 defects that can be resolved through point repairs, or otherwise integrated into the larger capital improvement projects<sup>6</sup>.

**Figure 2. NASSCO PACP Results and Rehabilitation Guidelines for Inspected Pipes**



To account for the currently undefined parameters that refine and may possibly expand project scope, the District should realistically plan to replace more than 12 miles of pipe and complete necessary point repairs over the next five years in order to address the 45 Grade 5 pipes<sup>7</sup> and 737 Grade 4 and 5 pipes<sup>8</sup>. Also, the District should presume that as the CCTV inspection program is

<sup>6</sup> District staff do not include the footage replaced through point repairs in their summaries of annual pipeline replacement totals. Point repairs must be budgeted separately from the pipeline replacements in the CIP. In the amended FY2012/13 budget, pipe repair crew costs are included under O&M.

<sup>7</sup> Presuming that each pipe segment must be replaced from manhole to manhole and is an average of 350 feet long, the total length would be approximately 3 miles. These projects are included in the 12 miles of proposed pipe replacements that are discussed in this section.

<sup>8</sup> These pipes include numerous recommended point repairs, as well as pipe replacements. These projects are included in the 12 miles of proposed pipe replacements and supplemental Grade 4 and 5 point repairs that are discussed in this section.

completed over the next several years, additional capital replacement needs will be identified and this initial annual footage will increase.

Based on discussions presented in the budget documents, the District has been planning to increase the average length of gravity sewer pipeline replacement to four miles per year. This target would replace 20 miles of pipe in the next 5 years, which is 67 greater than the 12 miles of known pipeline segment replacements. This target would be a good starting point for the pipeline replacement program, when completed in conjunction with known point repairs. It is recommended that the District complete the IAMP and associated capital improvement plan (CIP), and develop a funding strategy for the recommended program in order to be better prepared to confirm or adjust this footage as required.

## Rehabilitation and Replacement Strategy

The proposed IAMP is designed to prioritize pipe replacements in a manner that reduces risk, with a focus on addressing imminent pipe failures and reducing I&I. The highest priority projects should include replacement of the 45 Grade 5 pipes, as needed to supplement the work that has already been completed by District crews<sup>9</sup>.

Based on descriptions provided by staff of CCTV inspection ratings for the 45 Grade 5 pipes, it will likely be more cost effective to replace these segments from manhole to manhole in lieu of continuing point repairs performed by District crews. **The first proposed task in the IAMP project is to assess these 45 Grade 5 pipes, to prioritize their replacements, and develop a plan for design and construction. The project would be implemented in two phases. The first phase would be completed by December 2013, and the second phase would be completed by June 2014. The funding plan for this program would be defined in the recommended near-term financing plan that is discussed in the section above titled, "Review of Historical Budgets..."**<sup>10</sup> A preliminary cost estimate for the two phases (combined) is \$3M to \$4M. The initial prioritization of the 45 Grade 5 pipe projects would be completed within six week of initiating the IAMP.

**The proposed implementation schedule for repair of the 45 Grade 5 pipe segments is as follows<sup>4</sup>:**

- February 20, 2013 Approval of contract for the proposed IAMP
- March 1, 2013 Complete assessment of 45 pipe segments and develop scope of work and implementation schedule

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<sup>9</sup> In the past few years, the District has added a number of new positions, including a second engineer, pipe bursting crew, and CCTV inspection crew. The pipe bursting crew has completed 26 point repairs on 18 of the 45 Grade 5 pipes.

<sup>10</sup> December 19, 2012 Supplemental Questions from RWQCB, Questions 1 and 2 (funding plan and schedule for completing repair or replacement of the 45 Grade 5 pipes)

- March 20, 2013 Award contract for Phase I pipeline design (to be preceded by consultant selection process)
- June 5, 2013 Complete bid documents and advertise for bid
- July 24, 2013 Award construction contract for Phase I
- December 2013 Complete construction of Phase 1

The Phase II repairs would follow a similar schedule, beginning with design in August 2013.

In addition to scheduling these point repairs, the **IAMP would define a schedule that addresses all currently known PACP Structural Grade 5 defects within the first five years of the program, and all known PACP Structural Grade 4 defects in a 10-year timeline<sup>11</sup>**. Table 1 shows a possible replacement schedule that was developed using current CCTV inspection data and NASSCO recommendations for pipe replacement. This schedule would be refined through the IAMP, and is presented in this Report to demonstrate that the program that would be required to address these defects, which include the 45 Grade 5 pipes and the 737 Grade 4 and 5 pipes, is achievable. **The estimated cost of this anticipated replacement program is \$2 to \$3M in the first year, increasing to approximately \$6M per year in future years<sup>11</sup>**. It should be noted that this schedule represents a possible timeline to address known pipe defects only. The CIP that would be established through the proposed IAMP would also consider funding needs for pump station projects, forcemain improvements, pipe replacements that may be identified through future CCTV inspection, and other similar projects.

**Table 3. Possible Implementation Schedule for Known PACP Grade 4/5 Pipe Replacements**

PACP Structural Grade	Recommend for Repair (Miles)	Miles per Year										Future	
		1	2	3	4	5	6	7	8	9	10		
3 or more PACP5	9	2	3	2	2								
3 or more combination PACP5/4	3			1	1	1							
2 isolated PACP5s	Point Repairs												
1 isolated PACP5	Point Repairs												
3 or more PACP4s	1						1						
1 to 2 isolated PACP4s	Point Repairs												
Future replacements TBD			1	1	1	3	3	4	4	4		Adjust based on new CCTV inspection results	
Total		2	4	4	4	4	4	4	4	4			

<sup>11</sup> December 19, 2012 Supplemental Questions from RWQCB, Questions 1 and 2 (funding plan and schedule for completing repair or replacement of the 799 Grade 4 and 5 pipes)

The IAMP is proposed to be completed within 7 months after the project begins. This schedule would assure that Year 2 and future projects are completed without delay. It would also prepare the District to issue bonds for long-term projects as needed, and conduct a Proposition 218 rate-setting process, both of which are expected to be required in early 2014. This process would be separate and distinct from any interim rate-setting process that may be required in 2013 as identified in the proposed near-term financing plan.

## Other Rehabilitation and Replacement Needs

The proposed IAMP would consider not only gravity pipeline replacement and rehabilitation needs, but also pump station, forcemain and interceptor improvements. TM4 proposed a long-term capital improvement plan that consolidated pipeline, pump station, and forcemain recommendations from the SHECAP and SSRMP. TM4 recommended the replacement of 23.7 miles of gravity sewer pipe over a ten-year period, beginning in FY 2006/2007. Pipe replacement projections were slightly elevated in the middle years of the program, with a maximum proposed annual replacement length of 3.4 miles in FY2011/2012. TM4 also presented a 10-year CIP with annual budgets ranging from \$5.2M to \$8.3M, with an average annual capital budget projection of \$6.1M. To date, the District has completed approximately \$27M of the planned capital improvements that were described in TM4. These projects and are listed below in the section titled, "Capacity Improvement Strategy."

The recommendations in TM4 were developed prior to initiation of the District's CCTV inspection program. As discussed above, pipeline replacement projections have increased based on known condition ratings. Also, costs that were used to develop TM4 cost estimates are outdated, and some of the project needs have changed. The IAMP would consider these changes and develop a new integrated 10-year plan. The District should expect this plan to require future capital funding that is greater than the currently budgeted amounts.

**The IAMP would refine this cash flow projection to include the funding required to complete SSRMP recommendations (or their equivalent as determined through the IAMP). If initiated in February 2013, the IAMP would provide an updated cash flow projection by September 2013. It is expected that bonds, loan, rates, or a combination of these resources will be required to fund the recommended program. It is anticipated that the District would complete the activities needed to secure the needed funding, including completing a Proposition 218 process to raise rates to support the program, by June 30, 2014<sup>12</sup>.**

## Operations and Maintenance Planning

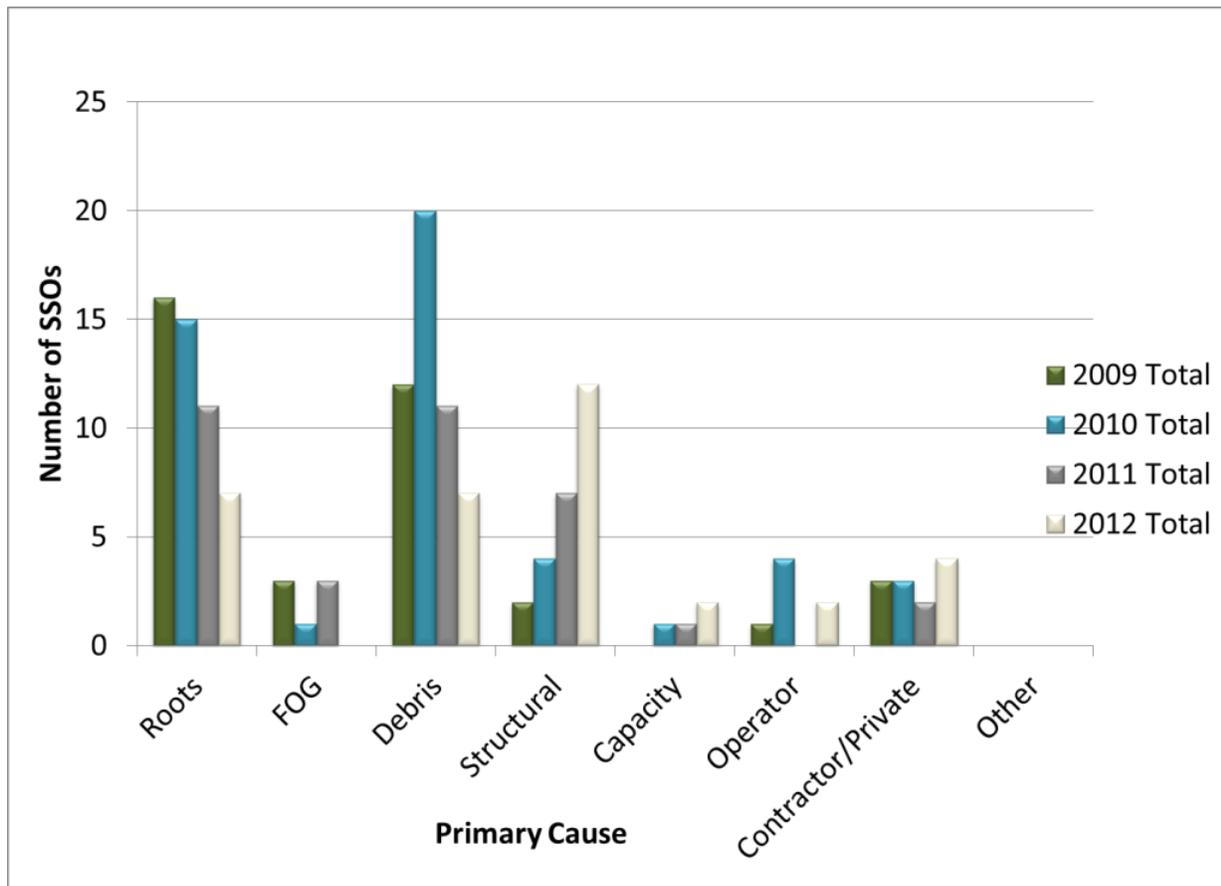
The District's SSO trends for the past four years are presented in Figure 3. These trends show that SSOs resulting from maintenance issues (i.e., roots, debris, and fats, oils & grease (FOG)) are decreasing. However, the number of SSOs from these causes is still high, and the District should

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<sup>12</sup> December 19, 2012 Supplemental Questions from RWQCB, Question 1 (funding plan and schedule for implementing recommendations from the SSRMP)

continue to improve their O&M processes in order to maintain the downward trend. The IAMP would include an overall assessment of cleaning and CCTV inspection processes, and review the effectiveness of these existing programs in the context of SSO reduction. Recommendations for improvement would be provided, including metrics to measure success. The proposed SSO reduction plan is discussed in more detail later in Section IV of this Report.

**Figure 3. Summary of SSOs by Cause**



### Summary of District’s Response to Issue No. 1

The following summarizes observations and recommendations related to RWQCB NOV Issue No.1:

- The District’s decision to revise the FY2012/2013 budget to pre-FY2012/2013 budget levels did not appear to impact the ability of the District to properly manage and maintain the system. The original FY2012/2013 budget included funding for capital improvements

that appeared to exceed the levels required for a sustainable O&M program. Therefore, the RWQCB should not use this budget to establish a threshold for acceptable system management.

- The Board delayed capital projects for one fiscal year, in FY2012/13. The transfer of capital funds appeared to be an isolated occurrence, and it is recommended that the District develop a near-term financing strategy to assure that this action is not required in the future. Also, it is recommended that the District submit documentation of this strategy in the form of a near-term financing plan, in conjunction with the first quarterly report to the RWQCB.
- Although it appears that capital replacements were discontinued in FY2012/2013, District crews have continued to conduct point repairs, including completing 26 point repairs on 18 of the 45 Grade 5 pipes. District crews will continue with similar replacements through the end of FY2012/2013 and in future years. The associated costs are included in the District's budget as O&M.
- It is recommended that the District initiate the proposed IAMP project in February 2013, and through this effort, provide a plan by September 2013 that targets the following:
  - Repairs the 45 Grade 5 pipes in two phases. Phase I would be completed in December 2013 and Phase II would be completed in June 2014.
  - Prioritizes replacement of all currently known Grade 5 defects within approximately 5 years, and all currently known Grade 4 defects within approximately 10 years. The associated pipes would include the 737 Grade 4 and 5 pipes.
  - Prioritizes pump station, forcemain and interceptor capital improvement needs and integrates these replacements, and their needed funding, into the overall capital improvement plan.
  - Evaluates and provides recommended improvements to existing cleaning and CCTV inspection programs with a focus on continued reduction in maintenance-related SSOs.
  - Provides an ongoing process for the assessment and prioritization of pipelines as new CCTV inspection results are collected over time.
- It is expected that the IAMP, if implemented, will identify additional capital needs that cannot be funded through existing rates. The District Board must be prepared to seek additional funding through a combination of bonds or loans, and sewer system charge

increases. It is anticipated that the financial planning for this effort would begin in September 2013, after the results from the IAMP are known.

### III. CAPACITY IMPROVEMENT STRATEGY

Issue 2. The RWQCB states that the District has violated Provisions D.10 and D.13(viii) of the Sanitary Sewer Order by not funding capacity improvement projects in the revised FY2012/13 budget.

Provisions D.10 and D.13 (viii) of the Sewer System Order require the following:

- D.10. The Enrollee shall provide adequate capacity to convey base flows and peak flows, including flows related to wet weather events. Capacity shall meet or exceed the design criteria as defined in the Enrollee's System Evaluation and Capacity Assurance Plan for all parts of the sanitary sewer system owned or operated by the Enrollee.
- D.13 (viii). System Evaluation and Capacity Assurance Plan: The Enrollee shall prepare and implement a capital improvement plan (CIP) that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. This section continues with subsections defining the content of capacity assurance plan.

The District completed the SHECAP in 2006, and thereby fulfilled the Sewer System Order requirement for a System Evaluation and Capacity Assurance Plan. The SHECAP included the development of a calibrated, fully dynamic hydraulic model that predicted potential bottlenecks that would occur during a design storm event, and also provided a plan to address these issues over time. SHECAP recommendations were then integrated into the SSRMP, which was completed in 2007. The SSRMP expanded the SHECAP list and provided a more comprehensive 10-year CIP that was presented in TM4.

**Since approximately 2007, the District has completed nine major capital infrastructure projects from the SSRMP as listed below (additional, smaller capital projects are not shown for clarity). These projects included six projects from the SHECAP report. The District has provided a total installed cost of \$27M for these major projects.**

- **Larkspur Landing B Pump Station 10 Improvements**
- **Creek/Bolinas Capacity Upgrades**

- **Woodland/College Project (includes Kentfield Relief Project)**
- **William/Holcomb/Meadowood Project**
- **Cascade Sewer Rehabilitation Project**
- **Kentfield Forcemain Rehabilitation Project**
- **2007 Sewer Rehabilitation Project No. 1**
- **Bon Air Tunnel Rehabilitation Project**
- **Sequoia Park / Tozzi Creek Crossing Project (Partial)<sup>13</sup>**

In addition to completing capacity improvements, the District has a lateral replacement grant program in place that is budgeted every year and well utilized (in FY2012/13, the District allocated \$250,000 for this program). This program effectively reduces I&I at the same time that the District implements capacity improvements, thereby approaching the issue of wet weather flow from multiple directions.

Based on this record of completed projects, it appears that the District has provided sufficient funds and effort to systematically address the capacity needs that were identified in SHECAP and SSRMP. Therefore, the District has and continues to meet the requirements of Sections D.10 and D.13 (viii) of the Sewer System Order.

As described in Section II, the District was required to delay capital projects in FY2012/13. The recommendations that were provided related to the District's rehabilitation and replacement activities also apply to the capacity improvement program.

With regard to prioritizing capacity-related projects, as evident in Figure 3, SSO records show that the primary causes of SSOs are not due to insufficient capacity within the sewer collection system. Over the past four years, the District reported only four capacity-related SSOs. Three of the SSOs had relatively low volumes and two of the SSOs occurred in the same neighborhood. Reported capacity-related SSOs for the past four years, as documented in CIWQS, are listed in Table 4 on the following page.

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<sup>13</sup> December 19, 2012 Supplemental Questions from RWQCB, Question 3 (status and schedule for implementing the short and long-term capital improvement recommendations identified in the SSRMP).

**Table 4. Capacity Related SSOs since 2009**

Date	Location	Volume (gal)
12/18 and 12/22, 2010 <sup>14</sup>	Various locations including College Avenue, Kent Middle School, Stadium Way, and additional locations. See Footnote 6.	
1/19/2010	410 William Ave., Larkspur	900 gal (50 gal recovered)
3/24/2011	San Anselmo and San Rafael Avenues, San Anselmo	9,000 gal (no flow recovered)
3/14/2012	7 Quisisana Drive, Kentfield	50 gal (no flow recovered)
12/2/2012	10 Quisisana Drive, Kentfield	100 gal (no flow recovered)

To further underscore the system’s ability to convey peak wet weather flows, on December 2, 2012, the wastewater treatment plant downstream of the District’s system, operated by Central Marin Sanitation Agency (CMSA), reported to the District that they had measured the highest flows from the District on record since the plant began operations in 1985. During this event, the District reported only two SSOs. The larger of these SSOs was located near Broadmoor Avenue and Morningside Drive in San Anselmo, and was described by the District as being caused by structural issues resulting from heavy roots. The second reported SSO was recorded as capacity related, but with a volume of only 100 gallons.

It is recommended that the District continue to address capacity issues over time. However, projects with the sole purpose of providing increased capacity or reducing I&I should be considered carefully to make sure that these projects are not unnecessarily diverting funds from projects that address more critical needs such as aging pipe issues and maintenance needs.

As the District moves forward with the SHECAP recommendations, there should be consideration of the benefits that will be achieved in I&I reduction through the pipeline rehabilitation and replacement (R&R) program. Since 2005, studies have been completed that show that pipeline replacements which incorporate lateral replacements achieve measurable reductions in I&I. There may be value in deferring non-critical capacity improvements to allow the District to benefit from I&I reductions.

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<sup>14</sup> In addition to the four SSOs that were reported in CIWQS as capacity-related, the District experienced a number of significant SSOs on December 18 and 22, 2010 that resulted from a combination of factors including construction debris, pipeline failure, pump station shutdown, and capacity. These SSOs were caused by a unique combination of events that are unlikely to be repeated in the future. They are included in Table 4 for reference, but should not be interpreted as an indication of a chronic capacity issue.

The IAMP would recommend any adjustments to the SHECAP recommendations and would integrate these updates into the new replacement program. The review would pay close attention to the four locations that experienced capacity issues as listed in Table 4, above, as well as other areas with known capacity issues within the gravity collection system that may not be specifically addressed in the current SHECAP report.

#### IV. SSO REDUCTION STRATEGY

Issue 3. The RWQCB states that the District has violated Provisions C.1 and C.2 of the Sanitary Sewer Order, and lists 36 SSOs that were reported between April 21, 2011 and October 31, 2012 as evidence of this violation.

Provisions C.1 and C.2 of the Sanitary Sewer Order include the following:

- C.1. Any SSO that results in a discharge of untreated or partially treated wastewater to waters of the United States is prohibited.
- C.2. Any SSO that results in a discharge of untreated or partially treated wastewater that creates a nuisance as defined in California Water Code Section 13050(m) is prohibited.

The District has used the CIWQS system to report SSOs since the system was initiated. SSO numbers are consistently decreasing, as shown in Figure 3, in the previous section. The District's SSO trends are summarized as follows:

- Trends show a consistent decrease in SSOs due to roots and debris
- The District has few SSOs related to FOG
- The District also has few SSOs caused by capacity constraints. This was also discussed previously, in Section III.
- There are continued issues with the control of debris that originates from contractors and private property owners
- The District is reporting a consistent increase in SSOs due to pipe failures

Notwithstanding the SSOs that resulted from pipe failures, the District's reported SSO numbers have steadily decreased. However, the District's SSOs resulting from pipe failures have increased. As discussed previously, the District's IAMP, if implemented, would help the District to address this issue through the identification and prioritization of pipeline replacement needs.

At the same time, the District must continue to address maintenance-related causes of SSOs. The IAMP would also meet this objective through a review of the District’s current O&M programs, and by recommending changes that would improve maintenance effectiveness. This program, when implemented over time, would establish a process of continuous improvement in cleaning, as confirmed through CCTV inspections and SSO reductions.

The IAMP would also develop an optimized CCTV inspection plan that adjusts CCTV inspection schedules where needed to dovetail with priorities for cleaning and pipeline rehabilitation, and defines a schedule for follow-up activities based on CCTV inspection results. Typical follow-up activities could include hot spot maintenance, repair, or changes to the inspection frequency.

Through the development and implementation of the O&M components of the IAMP, the District would continue to reduce SSOs from all causes over time. The IAMP is proposed to be completed within seven months after the project is initiated.

## V. IMMEDIATE ACTIONS PLANNED FOR 45 PIPES WITH GRADE 5 DEFECTS

Issue 4. The RWQCB states that the District threatens to violate Provisions C.1 and C.2, and Provision D.3 of the Sanitary Sewer Order and requires the District to address 45 pipe failure locations that have been reported by the District as in need of urgent repair.

Provisions C.1 and C.2 of the Sanitary Sewer Order are described in Section IV, above. Provision D.3 requires the following:

D.3. The Enrollee shall take all feasible steps to eliminate SSOs. In the event that an SSO does occur, the Enrollee shall take all feasible steps to contain and mitigate the impacts of an SSO.

As discussed previously in the section titled, “Rehabilitation and Replacement Strategy,” District repair crews have conducted 26 point repairs on 18 of the 45 pipe segments that are referenced in the NOV as requiring immediate repair.

**As discussed in previous sections, the proposed IAMP would include, as one of the initial tasks, an assessment of the 45 Grade 5 pipes, prioritization of replacement activities, and development of an accelerated plan for their repair or replacement. The project would be completed in two phases, and would follow the implementation schedule that is presented in**

**the Section III. Phase I construction would be planned for completion in December 2013 and Phase II construction would be planned for completion in June 2014<sup>15</sup>.**

Recommendations for the rehabilitation of other identified PACP Grade 4 or 5 defects are also presented in Sections II and III.

## VI. SUMMARY AND NEXT STEPS

The following summarizes the observations and recommendations in this Report:

- In 2006 and 2007, the District completed the SHECAP and SSRMP to establish the general parameters for rehabilitation and replacement, and more specific recommendations for pump station, forcemain, and capacity improvements.
- Since 2007, the District has consistently budgeted and invested significant capital funds to improve the sewer infrastructure.
- Since 2007, the District has conducted closed circuit television (CCTV) inspection of approximately 50 percent of the documented gravity system by length.
- In 2011 and 2012, the District prioritized repairs for individual pipe segments based on individual PACP scores for that segment. This effort yielded a CIP that replaced pipe and also installed cured-in-place pipe liner on a basin-wide basis, with the objective of reducing I&I.
- The District was not able to reach consensus on this aggressive plan and ultimately amended the plan to reflect a lower budget level. However, this decision did not appear to compromise the District's ability to properly manage and maintain the system because sufficient capital improvements had been completed in the years leading up to FY2012/2013, and the adjustment was considered a one-time occurrence.
- The District's program was updated through the Assessment that is documented in this Report. The Assessment was completed using available CCTV inspection ratings and other data, and the following was observed:
  - In order to address all known PACP Structural Grade 4 and 5 pipe segments, it appears that replacement of at least 12 miles of pipe will be required. It is likely that the District will need to replace more than this length of pipe to accommodate field conditions, defects that will become apparent through ongoing inspections, and other factors that define the CIP.

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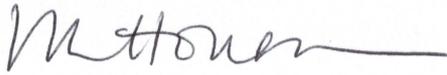
<sup>15</sup> December 19, 2012 Supplemental Questions from RWQCB, Questions 1 and 2 (funding plan and schedule for completing repair or replacement of the 45 Grade 5 pipes)

- SSOs due to roots, debris and FOG have decreased. However, the District should develop an optimized O&M program to further reduce the occurrence of maintenance-related SSOs.
- SSOs due to pipe failures have increased. The District recognizes this trend and should implement the IAMP project that is summarized below.
- SSOs due to capacity needs are generally low. Widespread I&I or accelerated capacity improvements may not be cost effective for the District at this time. However, capacity needs should continue to be considered as part of the overall replacement program.
- The District has completed 26 point repairs on 18 of the 45 identified pipe segments with PACP Structural Grade 5 defects. It is recommended that the District complete the remaining repairs in two phases. The first phase would be completed by December 2013 and the second phase would be completed by June 2014. It is also recommended that the District submit a near-term financing plan for this and other urgent work in conjunction with the first quarterly report to the RWQCB.
- It is recommended that the District initiate an IAMP project to establish an updated capital replacement and O&M plan that promotes SSO reduction and achieves the following targets. The IAMP would be completed in seven months following project initiation:
  - Replacement of pipe segments (manhole to manhole) with known PACP Structural Grade 5 defects (many also with Grade 4 defects) within five years.
  - Completion of point repairs for pipe sections with known Grade 5 defects within five years.
  - Addresses pipe segments with known Grade 4 defects through either pipe segment replacements or point repairs, as applicable, within ten years.
  - Application of this replacement strategy to additional pipes based on future CCTV inspection results.
  - Integration of the replacement strategy with planned capacity improvements and forcemain and pump station needs. The IAMP would consider opportunities for conservation and estimate I&I reductions that could be achieved through pipeline R&R.
  - Enhanced O&M planning to reduce SSOs with roots, FOG, or debris as their primary cause.
- Financial planning to fund the recommendations of the IAMP should begin in or prior to September 2013, and should be completed in early 2014.
- The District should take the steps needed to secure needed funding, including establishing new sewer service charges in compliance with Proposition 218, by June 2014.

## VII. CERTIFICATION

In compliance with Water Code §13267, I certify under penalty of perjury that this document and all attachments were prepared by me, or under my direction or supervision following a system designed to assure that qualified personnel properly gather and evaluate the information submitted. To the best of my knowledge and belief, this document and all attachments are true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

V. W. Housen & Associates, Inc.



Vivian Housen, P.E.  
Principal

## Scope of Work for Ross Valley Sanitary District Infrastructure Asset Management Plan

This Scope of Work develops an Infrastructure Asset Management Plan (IAMP) that is designed to improve long-term system management and reduce sewer system overflows (SSOs). The components of this plan are anticipated to be required as a result of the November 21, 2012 Regional Water Quality Control Board (RWQCB) Notice of Violation (NOV). The IAMP includes a rehabilitation and replacement component that targets repair of the 45 PACP Structural Grade 5 defects that are referenced in NOV, as well as other critical pipes and facilities, in Year 1. Rehabilitation of additional pipes with PACP Structural Grades of 4 and 5, also described in the NOV, are targeted for replacement within ten years. Remaining pipes are planned for rehabilitation before the end of their service life.

The District proposes to complete the work through the following five tasks.

- Task 1 – Evaluate Current Work Plans
- Task 2 – Prioritize Replacements Using an Asset Management Approach
- Task 3 – Develop an Optimized O&M Program
- Task 4 – Develop an Implementation Plan and Cash Flow
- Task 5 – Prepare Draft and Final Report and Meet with RWQCB staff

### TASK 1. EVALUATE CURRENT WORK PLANS

This task reviews the following documents, as available, to gain an overview understanding of the District's system and processes.

- Background Documents - City's sewer system GIS database and hard copy maps; existing Sewer System Management Plan and associated sewer ordinances and policies (Fats, Oils and Grease control, lateral replacement, overflow emergency response, etc.); financial planning documents.
- Operational Documents - Computerized Maintenance Management System (CMMS) database content; system condition information including CCTV inspection plans, condition ratings, cleaning results, and existing processes for prioritizing and documenting inspection and cleaning; other available maintenance documents; pump station descriptions, issues and emergency response plans; force main descriptions, maintenance schedules and preventive maintenance measures.
- Planning Documents – Capital improvement planning documents including any amendments to the System Hydraulic Evaluation and Capacity Assurance Plan (SHECAP) and Sewer System Replacement Master Plan (SSRMP).

### TASK 2. PRIORITIZE REPLACEMENTS USING AN ASSET MANAGEMENT APPROACH

Over the past four years, the number of reported SSOs showing pipe failure as their cause has consistently increased. This task develops an updated R&R program using available resources and information, with a focus on improving this trend through a decrease in failure-related SSOs. The

program will integrate opportunities for reduced base wastewater flows through water conservation and other similar programs. Assumptions for this task include the following:

- GIS mapping, a computerized hydraulic model, and a GIS-based CMMS are in place and in regular use by the District.
- Pipeline capacity needs from the existing SHECAP, and pump station/forcemain assessments from the existing SSRMP will be used. Additional hydraulic modeling can be provided as an optional service.

### **Task 2.1. Develop Criticality Model**

The District implements a criticality assessment based on Risk, which is determined based on Likelihood and Consequence of Failure, to prioritize pipeline replacements. This task will update this algorithm through the development of a Microsoft Access database model. Computer-generated replacement priorities will be reviewed with staff to make sure that the results match field knowledge of issues and priorities.

### **Task 2.2. Prepare Rehabilitation and Replacement Plan**

One, five, 10 and future year R&R plans will be developed based on the database model results. The process will address the 45 identified PACP Structural Grade 5 defects that are listed in the NOV in Year 1. High priority pump station and forcemain projects will also be included in Year 1 in order to assure a balanced program. Additional pipe segments with PACP Structural Grade 4 and 5 defects as described in the NOV will be planned for completion on a priority basis over the next five to ten years.

The prioritization process will consider opportunities to improve I&I reduction, with the understanding that the District will continue to replace lower laterals at the same time as mainlines, and will coordinate the existing Lateral Replacement Grant Program with mainline replacements. These efforts have been shown to effectively reduce I&I. The plan will strive to include pump station and forcemain improvements in each year for a balanced long-term asset management program. Remaining system pipes will be planned for replacement over an extended timeline that maximizes service life.

Facility replacement needs will be coordinated with SHECAP recommendations in order to combine projects for cost efficiency yet increase capacity in a systematic manner (i.e. downstream to upstream), and avoid capacity improvements where possible through base wastewater flow reductions (resulting from anticipated conservation and water recycling projects) and I&I reductions (resulting from pipe replacements).

## **TASK 3. DEVELOP OPTIMIZED O&M STRATEGY**

Over the past four years, reported SSOs with a cause of roots or debris have generally declined. However, every year the District continues to have maintenance-related SSOs. This task develops an enhanced O&M strategy that, when implemented over time, establishes a process of continuous improvement in cleaning, as confirmed through CCTV inspections and SSO reductions.

### **Task 3.1. Update Cleaning Schedules**

This task summarizes current gravity sewer cleaning schedules and practices, and reviews current

cleaning effectiveness. Following this review, cleaning schedules will be revised as necessary to provide the following:

- A quality-based process that optimizes cleaning frequency for hot spots and then quickly moves these areas off of the hot spot list when issues have been resolved. The plan would review the need to further improve FOG and root control.
- A plan to address intruding laterals and major offsets, if any have a history of debris collection and SSOs.
- Support in the integration of this process into the District's CMMS system.

Evaluation of current O&M field practices (overall strategy, procedures and productivity) is not included and can be provided as an optional service.

### Task 3.2. Update CCTV Inspection Schedules

This task reviews and recommends improvements, as necessary, to the District's current practices for scheduling gravity sewer inspection. This task provides the following:

- Coordination of CCTV inspection schedules with similar schedules for cleaning and pipeline rehabilitation.
- A quality-based process that determines follow-up activities based on CCTV inspection results. Typical follow-up activities could include hot spot maintenance, repair, or changes to the inspection frequency.

### Task 3.3. Capacity Assessment

Over the past four years, less than two SSOs per year have been attributed to capacity needs. The worst capacity needs will be reviewed first, in the context of the City's overall priorities for pipeline replacement. Generally, capacity projects will be planned from downstream to upstream, so new projects do not increase flow to lower, capacity-constrained portions of the system. Capacity needs will be melded with the proposed R&R program in order for pipelines that require both R&R and capacity improvements in the downstream reaches to be prioritized for repair before similar projects in upstream areas.

### Task 3.4. Resource Assessment (Relative to IAMP)

This task includes an overview assessment of existing staffing and equipment, and advises as to whether the District requires additional resources to implement the IAMP recommendations. A more in-depth evaluation of the District's Level of Service objectives and associated staffing and management systems/tools would expand this IAMP beyond its current scope and can be provided as an optional service.

## TASK 4. DEVELOP IMPLEMENTATION PLAN AND CASH FLOW

Using the recommendations that are developed in Tasks 1 through 3, an infrastructure asset management implementation plan and projected cash flow will be developed that will become part of the District's overall capital improvement plan. The implementation plan will provide a year-by-year

summary of O&M and R&R activities for the first one, five, ten and future years, as well as their associated costs, to facilitate future budgeting for both capital and O&M expenses.

#### **TASK 5. DRAFT AND FINAL REPORT**

This task addresses all comments received in Tasks 1 through 4, above, and compiles the individual TMs into a single Report. The Report will include additional sections such as an Executive Summary and Introduction. This task includes discussions with Regional Board staff to present and answer questions about the plan.

**RESOLUTION NO. 13-1458**

**RESOLUTION OF THE BOARD OF DIRECTORS OF SANITARY DISTRICT NO. 1 OF MARIN COUNTY APPROVING THE TECHNICAL REPORT PREPARED BY V.W. HOUSEN AND ASSOCIATES AS THE DISTRICT'S RESPONSE TO NOTICE OF VIOLATION AND THREATENED VIOLATION OF ORDER NO. 2006-0003-DWQ ISSUED BY THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD FOR THE SAN FRANCISCO BAY**

**WHEREAS**, there is now a Notice of Violation and Threatened Violation of Order No. 2006-0003-DWQ for the Sanitary District No. 1 of Marin County Collection System ("NOV") issued by staff from the California Regional Water Quality Control Board for the San Francisco Bay ("Regional Board") against Sanitary District No. 1 of Marin County ("District") for alleged violations of Order No. 2006-0003-DWQ; and

**WHEREAS**, the NOV orders the District pursuant to Water Code section 13267 to prepare and submit a Technical Report in response to the NOV, and prepare a schedule for completion of necessary corrective actions; and

**WHEREAS**, the District Board of Directors ("Board") engaged V.W. Housen and Associates to conduct an assessment of the District's sanitary sewer system based on existing data and information, and requested V.W. Housen and Associates to prepare a Technical Report in response to the NOV based on said assessment; and

**WHEREAS**, the Board has reviewed the Technical Report attached hereto as Exhibit A; and

**WHEREAS**, the Technical Report appropriately represents an assessment of the condition of the District's sanitary sewer system based on currently available data and information; and

**WHEREAS**, the Technical Report includes an appropriate schedule of corrective actions; and,

**WHEREAS**, the Technical Report is in the best interest of the District and the public; and

**WHEREAS**, the Board therefore desires to approve the Technical Report for transmittal to the Regional Board in response to the NOV;

**NOW, THEREFORE BE IT RESOLVED** by the Board of Directors of Sanitary District No. 1 of Marin County that:

Section 1. The Technical Report attached hereto as Exhibit A is hereby approved and adopted.

Section 2. The District's Legal Counsel is hereby authorized and directed to transmit the Technical Report attached hereto as Exhibit A for and on behalf of the District.

Section 3. This Resolution shall become effective immediately upon its passage and adoption.

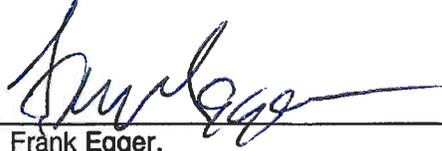
**PASSED, APPROVED AND ADOPTED** by the Board of Directors of Sanitary District No. 1 of Marin County on January 23, 2013, by the following vote:

AYES: *SULLIVAN, GUASCO, MEIGS, SYLLA, AND EGGER*

NOES:

ABSENT:

ABSTAIN:



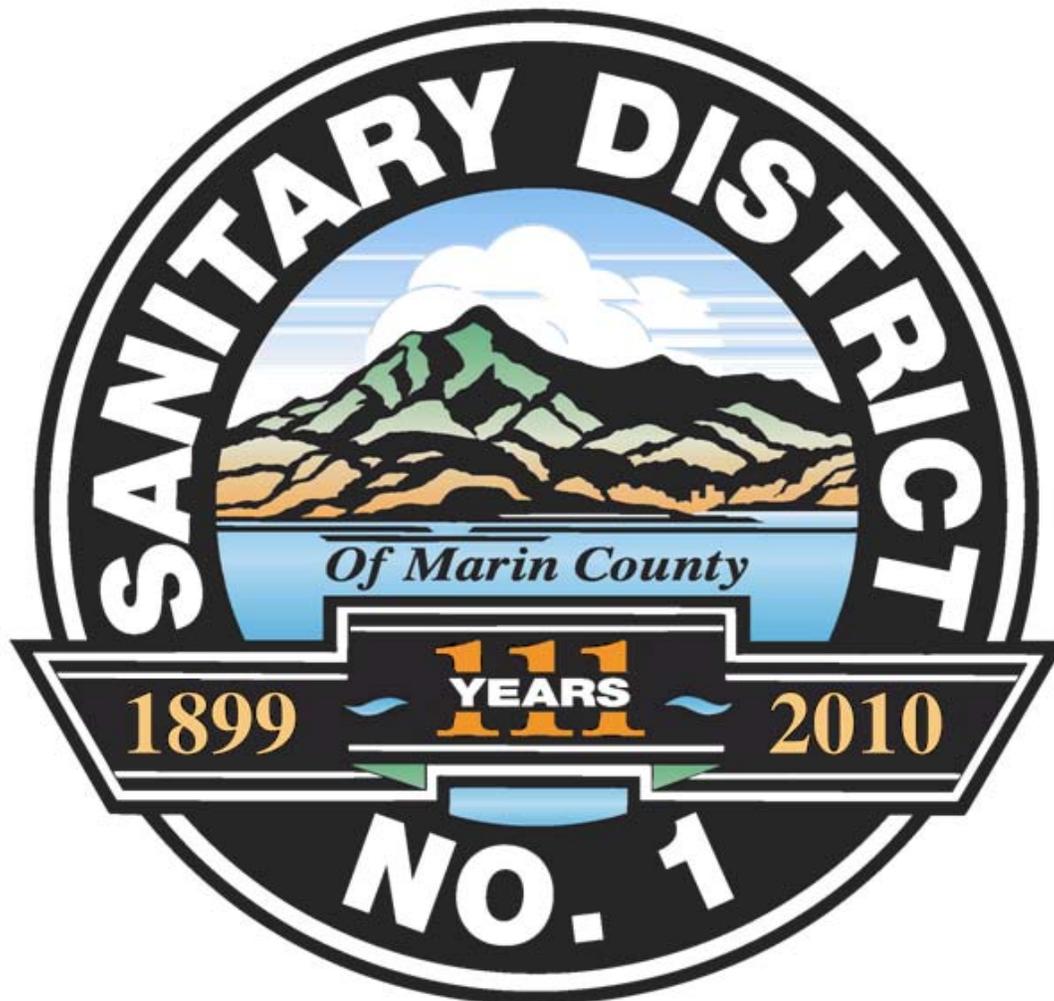
Frank Egger,  
President of the Board

Attest:



Mary Sylla  
Alternate Secretary of the Board

# Ross Valley Sanitary District Fiscal Year 2012/13 Budget



**Adopted – May 23, 2012**

Sanitary District No. 1 of Marin County, dba Ross Valley Sanitary District  
2960 Kerner Blvd. ♦ San Rafael, CA 94901 ♦ (415)259-2949

[www.rvsd.org](http://www.rvsd.org)

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**Sanitary District No. 1 of Marin County**  
**Miscellaneous Statistics and Contact Information**  
**July 1, 2012**

**I. General Information**

Authority	Resolution via public election; organized under the California Health and Safety Code 6400 and the Sanitary Acts of 1891 and 1923.
Date of Formation	May, 1899
Governing Body	Elected five-member Board of Directors
Chief Executive Officer	Brett Richards, General Manager
Chief Financial Officer	Wendy Martin-Miller, Business Manager
Type of Service	Sewage
Service Area	26.75 square miles of the Ross Valley watershed, Murray Park & San Quentin Prison
Population Served	± 50,000
Number of Employees	38

**II. Contact Information**

General Manager	2960 Kerner Blvd. San Rafael, CA 94901 (415) 259-2949	Board Members	Marcia Johnson, President <a href="mailto:mjohnson@rvsd.org">mjohnson@rvsd.org</a>
Business Manager	2960 Kerner Blvd. San Rafael, CA 94901 (415) 259-2949		Peter Wm. Sullivan, Secretary <a href="mailto:psullivan@rvsd.org">psullivan@rvsd.org</a>
Retirement Plans	CalPERS Headquarters Lincoln Plaza North 400 Q Street Sacramento, CA 95811 (888) 225-7377		Pamela Meigs, Treasurer <a href="mailto:pmeigs@rvsd.org">pmeigs@rvsd.org</a>
			Patrick A. Guasco, Director <a href="mailto:pguasco@rvsd.org">pguasco@rvsd.org</a>
			Frank Egger, Director <a href="mailto:fegger@rvsd.org">fegger@rvsd.org</a>

Source: Sanitary District No. 1 of Marin County

## 1.0 General Information

### 1.1 Overview

The Ross Valley Sanitary District is one of the oldest Sanitary Districts in the state of California and the oldest in Marin County. Our customers include approximately 55,000 people of Fairfax, Greenbrae, Kentfield, Kent Woodlands, Larkspur, Murray Park, Oak Manor, Ross, San Anselmo, and Sleepy Hollow. The District maintains about 200 miles of gravity sewer mainlines, 7.5 miles of force main lines and 20 lift and pump stations which collect, pump, and transport approximately 5 million gallons of sewage per day to the Central Marin Sanitation Agency (CMSA) for treatment. The Ross Valley Sanitary District is a Special District of the State of California and is governed by a 5 member Board of Directors. Each Director is elected at large and serves a 4 year term.

The District is a stand-alone single-service provider that does not have component units, does not rely upon a property tax levy for a significant portion of its revenues, nor does it issue general obligation debt secured by taxes that it levies, and thus is not subject to a legal debt limit. The majority of District revenue is derived from sewer service charges.

The first residents of Ross Valley held large tracts of land, allowing for acceptable use of septic tank systems. Upon completion of the North Pacific Coast Railway in 1875, some of the large land holdings were subdivided allowing a rapid influx of new homeowners. As a result of the increased population and failing onsite septic tank systems, an election was held in 1899 to create Sanitary District No. 1 as a coordinated solution for sanitary sewers for the communities of Fairfax, San Anselmo, Ross and Kentfield. Established May 27, 1899 Sanitary District No. 1, also known as Ross Valley Sanitary District (RVSD), became one of California's first sanitary districts.

In 1922, a bond election approved \$450,000 for construction of 7.5 miles of trunk sewer line and a wastewater treatment facility utilizing Imhoff reduction tanks — one of the first wastewater treatment facilities in California. The 7.5 miles of trunk sewer line remained in service until 1985 when it was replaced because of old age and lack of capacity. In 1948, the Greenbrae pump station was built at the site of the Imhoff reduction tanks, and in 1984 the station was replaced at a cost of over \$2 million.

In 1945, the volume of wastewater being generated required construction of a trickling filter wastewater treatment facility providing secondary treatment. This facility was completed in 1948 at the site now known as 2000 Larkspur Landing Circle. The Larkspur Landing treatment facility was expanded several times over the years and in 1962 the treatment capacity was increased from 3 to 4.5 million gallons per day.

The District continuously operated the Larkspur Landing treatment facility from 1948 through 1984 when it was decommissioned after the startup of the Central Marin Sanitation Agency (CMSA). CMSA, a joint powers authority (JPA), was formed by Sanitary District No. 1, Sanitary District No. 2, San Rafael Sanitation District, and the City of Larkspur for the purpose of constructing and operating a wastewater treatment facility with deep-water discharge to San

Francisco Bay. Construction of the CMSA treatment plant, interceptors, and related facilities totaled over \$84 million. In 1993, RVSD fully annexed the Larkspur sewer district and took over all assets and infrastructure; however, under the direction of LAFCO, this southern downtown area has been maintained as a separate rate-zone.

In the last 3 years the District has installed or repaired nearly 16 miles of sewer lines. This footage was significantly achieved with the completion of the Kentfield Force Main Rehabilitation project, the Woodland/College Goodhill project and the Lateral Replacement Grant Program. The District has also performed video inspection (CCTV) of over 60 miles of sewer pipe providing information to identify trouble spots and prioritize repairs. The District purchased a new home in 2009 and moved to 2960 Kerner Boulevard, San Rafael, CA, just blocks from District lines. This purchase provided cost savings for all future years as illustrated in Table 1.1a.

**Table 1.1a**

	Lease (CMSA)	Purchase (Kerner)	Savings
Monthly	\$11,108	\$5,034	\$6,074
<b>Annually</b>	<b>\$133,296</b>	<b>\$60,408</b>	<b>\$72,888</b>

The District has continued with its Community Outreach program reaching into the heart of our service area, and has implemented a full-color newsletter with business updates and facts about the industry and environment. Additional outreach efforts include: participation in local community fairs and festivals; informational meetings in communities prior to commencing with major construction projects; and door-to-door contacts in neighborhoods where pipe replacement is scheduled in order to publicize our popular Lateral Replacement Grant Program.

In 2009 the District launched the Lateral Replacement Grant Program. The lateral is the private (Property owner) portion of the sewer pipe usually residing on the private property but often including portions in the public right-of-way, up to and including the connection with the public maintained sewer main line pipe. There are approximately 200 miles of private property owner sewer laterals in the Ross Valley service area, and as these important pipes age, they deteriorate and become in need of repair. The cracks and poorly-constructed joints of older pipes become sources of root intrusion (causing backups in homes) and sources of inflow and infiltration (I/I), which during storm events, can cause flow to go from 5 million gallons per day to 65 million gallons per day. The Ross Valley Lateral Replacement Grant Program helps our ratepayers by offering a method for partial payment assistance for repairs to the lateral. Please see [www.RVSD.org](http://www.RVSD.org) for details, or come into our office at 2960 Kerner Blvd, San Rafael CA — 94901. Since inception, the program has assisted homeowners with the replacement of more than 4 miles of old, failing laterals. The District plans to continue funding this program at a level of \$500,000 in FY2012-13.

## **1.2 Purpose, Vision, and Mission**

The District seeks to provide the highest quality and most cost-effective wastewater collection possible for its constituents by meeting the following goals:

### **Be available and responsive to the needs of the public**

- District staff is available to respond to emergency calls 24 hours a day, 365 days a year.
- Emergency calls are responded to within 45 minutes of being received.
- Board meetings are held on weekday evenings and items requiring public input are placed at the top of the agenda.

### **Perform preventative maintenance on all collection system components**

- The District's wastewater collection system is cleaned every 2-3 years, and known trouble spots are cleaned more often as needed to minimize backups.
- The District's pump stations are continually monitored by an automated/computerized Supervisory Control and Data Acquisition (SCADA) program, which reports problems via auto-dialer modems.
- Each pump station is manually checked daily.
- Routine maintenance is performed in response to work orders initiated by the computerized Pump Station Maintenance Management System.

### **Proactively identify and correct public sewer system defects**

- When District crews encounter a system defect, they submit a Work Request detailing the defect so it can be prioritized for rehabilitation.

### **Work cooperatively with local, state and federal agencies**

- Coordinate sewer replacement projects with projects undertaken by local agencies and municipalities.
- Assist local agencies and municipalities as the need arises in emergency situations.
- Comply with requirements of the State Water Resources Control Board; the San Francisco Bay Regional Water Quality Control Board; the U.S. Environmental Protection Agency; the California Department of Fish and Game; County, State and Federal Health and Safety Regulations; and State and Federal Labor Codes and Regulations.

### **Uphold the District's standards and specifications on newly constructed public and private sewers**

- A District Inspector must approve the installation of all new private side sewers and all new connections to the public sewer within the District's boundaries.
- A District Inspector supervises the installation of all new public sewer lines and the rehabilitation of all existing sewer lines.

## 1.3 District Programs

The District's core business is the collection and conveyance of wastewater from businesses and residences within our boundaries to the treatment plant. In order to meet the requirements of this responsibility, the District has established teams to cover Inspection, Maintenance, and Capital Asset Improvement and Expansion. These teams operate both separately and cooperatively to assess the needs of the District's 200+ miles of pipeline and 20 pump/lift stations.

- Inspection services and responsibilities include inspection of all new construction of District pipeline, new connections to the District infrastructure, and private lateral repairs as permitted by the district. Also included in the Inspection Department's responsibilities is the routine inspection of District pipeline through Closed Circuit Television (CCTV) in order to provide condition assessments and to prioritize maintenance and repairs.
- Maintenance ensures that the District pipeline and pump/lift stations are cleaned and maintained in working order to accommodate flow at all times. Maintenance services include clearing the pipelines through rodding and flushing as well as mechanical maintenance of the pump/lift stations. Additionally, the Maintenance department includes a repair/construction crew, who are deployed to repair flaws in the pipelines and install new pipe through both pipe-bursting and manual processes.
- Capital Asset Improvement and Expansion is coordinated through the Engineering Department, which manages all processes from design through construction and completion of the District's projects as outlined in the Capital Improvement Program. This now includes the District's Pipebursting Crew; a program that was successfully piloted in FY2010-11 and approved by the Board of Directors for full implementation in FY2011-12. This program received national attention and praise in an article published in December, 2010 by the industry magazine Municipal Sewer and Water.

The program goals established in this budget are:

- Continued promotion of the Lateral Replacement Grant Program.
- Continued expansion of the Community Outreach Program..
- Zero controllable violations (overflows due directly to system failures while operating within specifications).
- Where possible, seek operating cost reductions and/or operating efficiencies.
- Accelerated replacement of pipe and other key collection system infrastructure.

## 1.4 Significant Issues and Risks

### Significant issues for the District in 2012-13 include:

- **Large-Scale Capital Improvement Projects**

The District has an aging infrastructure that must be replaced in order to avoid dangerous and costly Sanitary Sewer Overflows. This year, the District is planning Capital Improvement Projects to approximate 21 miles of this critical infrastructure. The District's ability to maintain this minimum of pipeline replacement is critical to protecting ratepayers' interests; both fiscal and public health. Projects include engineering and construction of improvements and rehabilitation to pump stations, forcemains, gravity and trunk sewers. This includes two miles of main line replacement by pipebursting, three miles of main line replacement by open cut, and 16 miles of rehabilitation by cured-in-place-pipe (CIPP) in basins with high infiltration/inflow.
- **System Maintenance**

The District is working diligently to maintain an aging infrastructure. For each year an older pipe is not replaced, required maintenance and repair activities increase. The District maintains and operates more than 200 miles of pipeline and has previously maintained a 2 ± mile per year replacement program. Of those 200 miles of pipeline, 170 miles is already at or exceeding 50 years of age, which is the accepted "end of life" for sewer pipelines. The District's plan is to fund a maintenance and repair program that is able to adequately address the issues of an aging infrastructure over the next ten years.
- **Sewer Revenue Bonds**

The District has entered into an agreement with California Municipal Finance Agency forming a joint powers authority (JPA) called Ross Valley Public Financing Authority ("Authority"). The Authority is comprised of the Board of Directors of the District. The Authority will enter into a sale agreement with the District in which the District would be obligated to make semi-annual payments to the Authority. The Authority will assign the payments to the bond trustee who will pass the payments through to the bondholders for debt service on the bonds. The bonds will be secured by a pledge of the sewer revenues derived from ratepayers within the District. The bonds will be issued by the Authority as revenue bonds under the Mark Roos law and secured by the installment payments to be made by the District to the Authority. A bond underwriter will be engaged to market and sell the bonds to investors. The bonds will be tax-exempt municipal bonds therefore; the interest paid to investors will be exempt from federal and state taxes.

### Risk Assessment

- **CMSA: (Central Marin Sanitation Agency) Risk factor: 9/10**

The CMSA Treatment JPA offers a number of concerns which ought to be regarded as significantly important, from the perspective of managing risk. Towards the end of FY 2011/12 CMSA proposed to provide services to San Quentin State Prison which the District had been previously providing. This change resulted in an increase of sewer

service charges of approximately \$50 per ratepayer. The CMSA JPA is not required under the terms of Proposition 218 to engage in the public hearings required in order to increase operational spending. This effectively means that a majority vote from the CMSA Board of Directors has the ability to increase RVSD's expenditures annually without any accountability to RVSD ratepayers.

When CMSA costs go up, RVSD's available cash goes down until a Prop 218 hearing may be performed. If/when the RVSD ratepayers choose to support a rate increase the District receives the increased revenue. Until this occurs, all increases are absorbed by RVSD cash, or reductions in operational or capital spending. Staff wrote to and asked CMSA to please consider adopting Prop 218 rate-payer accountability measures in an effort to work together to protect our respective fiscal positions, but CMSA has thus far refused.

This issue represents unmanageable risk, and efforts to identify models for restricting unaccountable operational increases should be analyzed. The CMSA fees are an uncontrollable, required expense which the District has no ability to mitigate or influence through its two CMSA Commissioners as they do not represent a voting majority on the CMSA Commission.

- **Regulatory Updates: Risk Factor: 9/10**

The State Water Quality Control Board (Water Board) enacts laws and regulations governing how a sanitary sewer district must be run; those laws and regulations are contained in the Sanitary Sewer System Waste Discharge Requirements (SSS WDRs). In the spring of 2012, the District settled with the Water Board for the Sanitary Sewer Overflow that occurred in December 2010. Consequently, a fine totaling \$807K was assessed and an additional \$732K was ordered to be invested in the community within the next four years. The Water Board has proposed revisions to the SSS WDRs that would greatly increase the penalties for Sanitary Sewer Overflows, impose additional permitting requirements on collection system operators such as RVSD, and alter construction requirements beyond what is fiscally sustainable. The provisions of the currently proposed updated SSS WDRs create requirements that can only be fulfilled by applying a great deal of District resources, including staff and/or consultant time/expense as well as the increase of maintenance and construction compliance costs. The revised SSS WDRs have yet to be adopted and the Water Board is currently taking comment from system and plant operators; however, the risk of this revision being implemented without careful attention being paid to the input provided by RVSD and its sister agencies poses a potential fiscal burden of unknown amount. Without allowing for an assessment of the cost, implementation of the Water Board's proposed update is not prudent and presents a high risk for RVSD and all Sanitary Sewer System operators.

## 2.0 Revenue and Expense Projections

### 2.1 Revenue

The sewer services charges are based on a flat rate per EDU (Equivalent Dwelling Unit). Ratepayers in the Larkspur Rate Zone (the portion of the City of Larkspur annexed in 1993) will see higher rates because the Larkspur Rate Zone does not contribute funds from the Ad Valorem property tax as do the ratepayers in the Ross Valley Rate Zone. The primary sources of the District's revenues are:

1. **Sewer Service Charges** are billed annually on the property owner's tax bills. Rate payers who are exempt from property tax (mainly State agencies) are billed directly by RVSD.

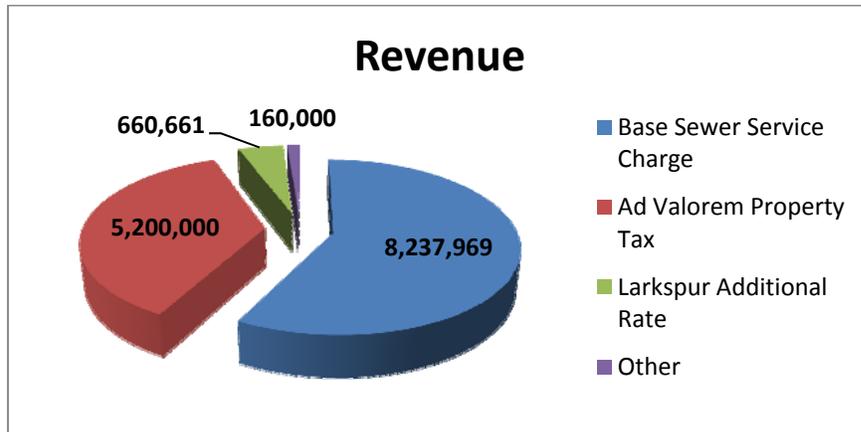
District Sewer Service Charges are projected to total \$14,758,726. Of this amount, \$5,860,097 will be passed through directly to Central Marin Sanitation Agency for contracted wastewater treatment services. Total Base Sewer Service Charge revenue for RVSD will be approximately \$8,898,630

Included in the above charges is the estimated amount of \$660,661 that Larkspur will contribute in revenue from the additional charges needed to equate the Larkspur Rate Zone to the total amount paid by Ross Valley residents through both the Sewer Service Charge and Ad Valorem Property Tax. This additional revenue from Larkspur will be applied to the Capital Budget to supplement the Ad Valorem Property Tax received from other Ross Valley ratepayers.

In July, 2012 CMSA will begin providing maintenance services to San Quentin Prison. This is resulting in a net loss of revenue of approximately \$1.2M at a cost of \$50 per ratepayer.

2. **Ad Valorem Property Tax Proceeds** — This District, along with other local agencies, is allocated a portion of the base property tax paid by property owners within the District's boundaries. The County of Marin calculates and distributes this bi-annually. The projected ad-valorem to be collected is expected to remain constant from the prior year and is budgeted at \$5,200,000.

Table 2.1

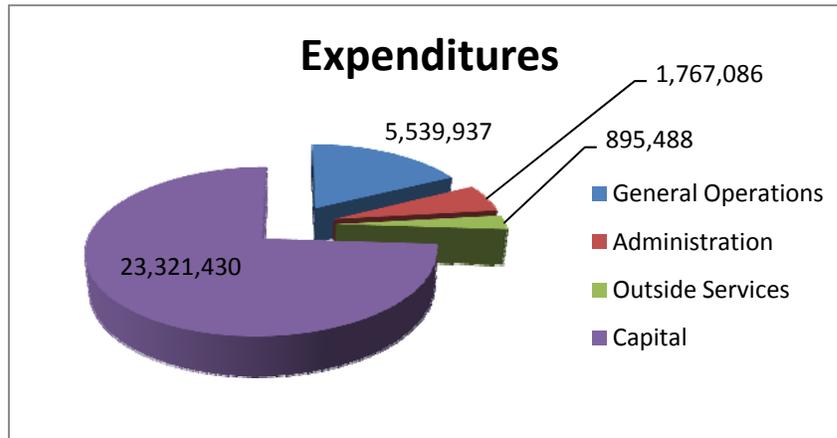


## 2.2 Expenditures

The District has four major types of expenditures; General Operations, Administration, Outside Services, and Capital.

1. **General Operations** costs include all expenses (including personnel expenses) to maintain and repair the District's Pump Stations and Sewer Lines. This year, planned expenses for maintenance are \$5,539,937.
2. **Administration** expenses cover the full cost of managing and supporting the District's core business functions (including personnel expenses). This includes Utilities, Insurance, Financing, and all office support functions as well as Board Compensation. In support of the District's planned improvements to Capital Assets and System Maintenance, total planned expenses are \$1,767,086.
3. **Outside Services** consist of Community Outreach, Legal Services (including District Counsel), and consulting services in areas such as Audit and Information Technology. Total planned expenses in this area are \$895,488.
4. **Capital** expenditures include Capital Improvement/Expansion Projects and Fixed Asset (vehicles & equipment) purchases. Total pipeline replaced by various projects will total approximately 21 miles this year. Additionally, construction vehicles and equipment will be purchased for the Pipebursting Crew and Repair Crew. The District plans on spending \$23,321,430 in FY2012-13. This includes the cost of capital in the form of interest payments on the sewer revenue bonds.

Table 2.2



### 3.0 Staffing

#### 3.1 Headcount

**Table 3.1 – FY2012/13 Staffing Plan**

Position	Existing (E), New (N), or Reclass (R))	Full (F) or Part Time (P)	2009/10	2010/11	2011/12	2012/13
<b>Administration</b>						
General Manager	E	F	1	1	1	1
Business Manager	E	F	1	1	1	1
Accounting Manager	E	F	1	1	1	1
Administrative Assistant	E	F	2	3	3	3
<b>Administration Total</b>			<b>5</b>	<b>6</b>	<b>6</b>	<b>6</b>
<b>Operations</b>						
<b>Maintenance Department</b>						
Chief of Operations	E	F	1	1	1	1
Maintenance Superintendent	E	F	1	1	1	1
Maintenance Superintendent	E	F	1	1	1	1
SCADA Technician	E	F	1	1	1	1
Senior Supervisor	E	F	1	1	1	1
Maintenance Supervisor	E	F	5	5	5	5
Maintenance Operator III/II/I/Trainee	E	F	8	8	8	8
<b>Engineering Department</b>						
District Engineer	E	F	1	1	1	1
Assistant Engineer	E	F	1	1	2	2
<b>Inspection/Construction Department</b>						
Inspection Superintendent	E	F	1	1	1	1
Inspector	E	F	2	2	1	1
Safety Coordinator/Fog Compliance	E	F	1	1	1	1
Maintenance Supervisor-CCTV	E	F	1	1	1	1
Maintenance Operator III/II/I/Trainee-CCTV	E	F		2	2	2
Maintenance Supervisor-Pipebursting	E	F		1	1	1
Maintenance Operator III/II/I/Trainee-Pipeburstin	E	F		4	4	4
<b>Operations Total</b>			<b>25</b>	<b>32</b>	<b>32</b>	<b>32</b>
<b>Total</b>			<b>30</b>	<b>38</b>	<b>38</b>	<b>38</b>

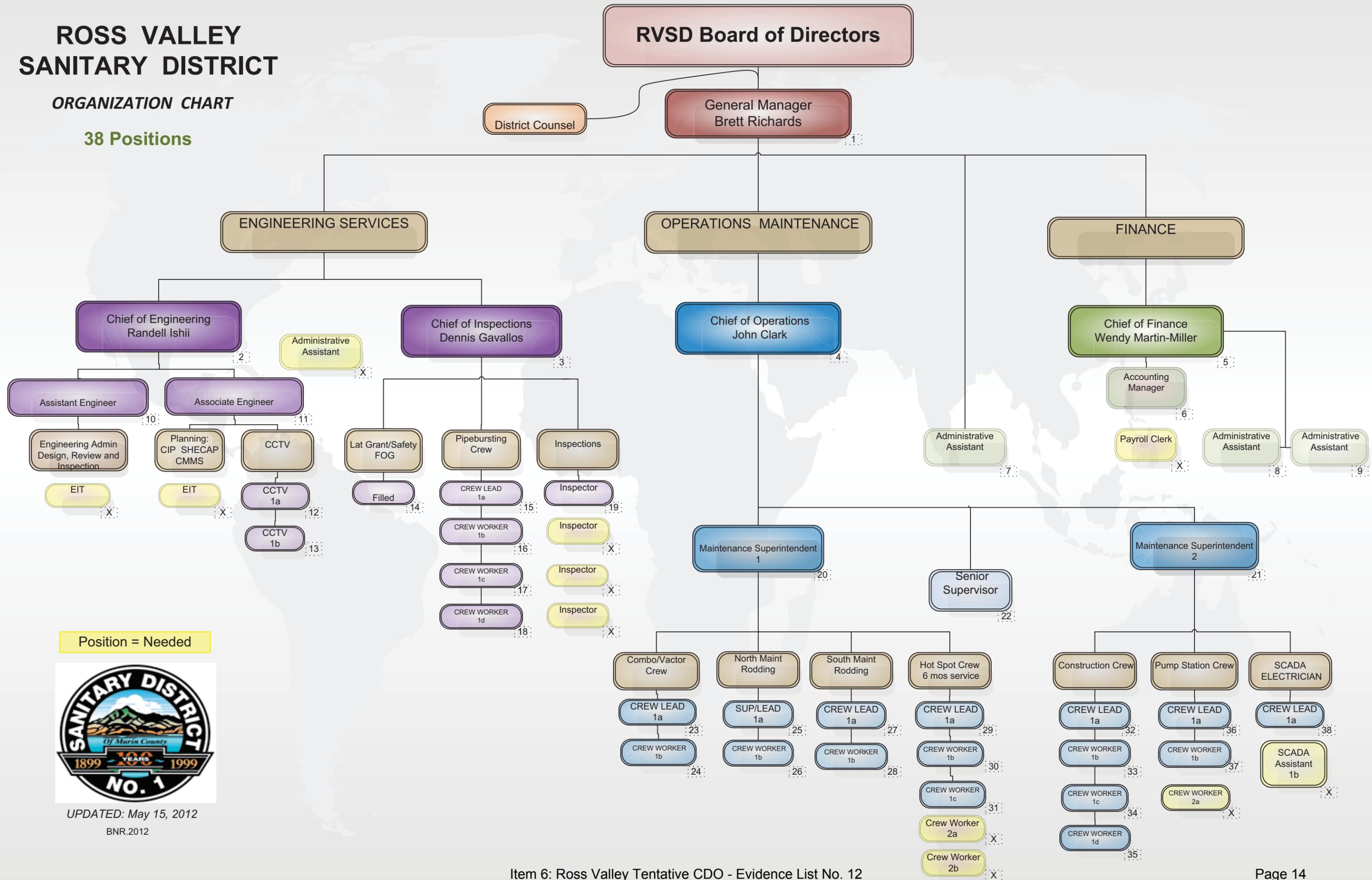
## 3.2 Org Chart

[Please see Org Chart on following folded page]

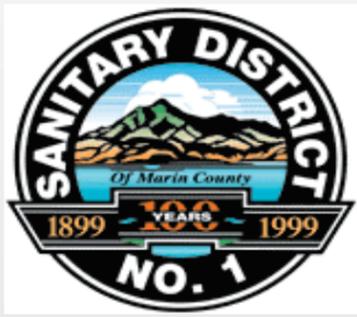
# ROSS VALLEY SANITARY DISTRICT

## ORGANIZATION CHART

38 Positions



Position = Needed

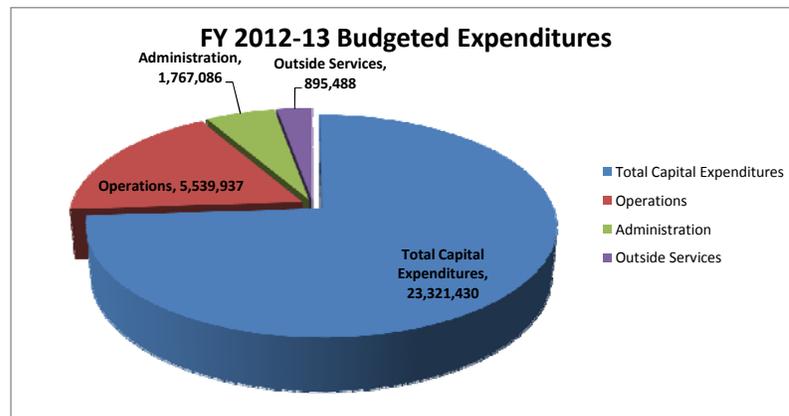
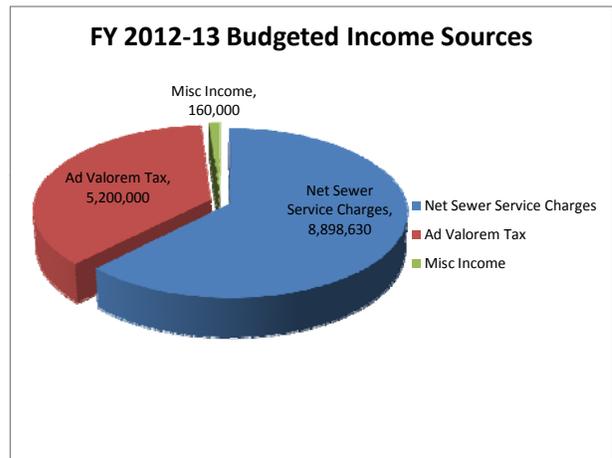
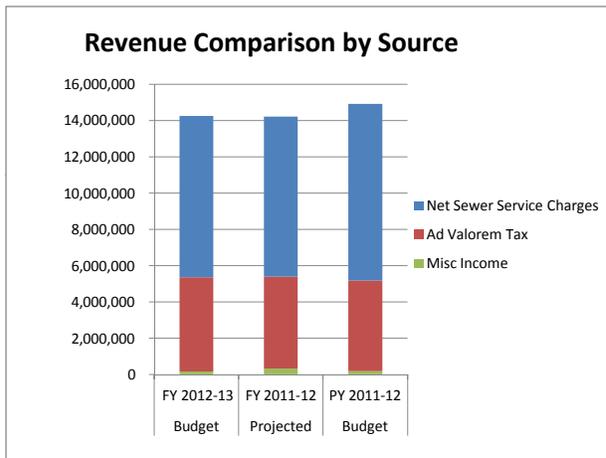


UPDATED: May 15, 2012  
BNR.2012

## **4.0 Financial Schedules**

**Sanitary District No. 1 of Marin County  
dba Ross Valley Sanitary District  
FY 2012-13 Budget Summary**

	Budget FY 2012-13	Projected FY 2011-12	Budget PY 2011-12	FY 12-13 % of FY 11-12 Budget
<b>Income</b>				
1 Sewer Service Charges	14,098,065	15,319,777	16,321,954	86%
2 Larkspur Ad Valorem Tax Equivalent	660,661	675,514	681,842	97%
3 Revenue Transfers to CMSA	(5,860,097)	(7,168,394)	(7,267,605)	81%
4 <i>Net Sewer Service Charges</i>	8,898,630	8,826,896	9,736,191	91%
5 Ad Valorem Tax	5,200,000	5,065,654	5,000,000	104%
6 Misc Income	160,000	329,323	188,400	85%
7 <i>Total Tax and Misc Income</i>	5,360,000	5,394,977	5,188,400	103%
<b>8 Total Income</b>	<b>14,258,629</b>	<b>14,221,873</b>	<b>14,924,591</b>	<b>96%</b>
<b>Expenditures</b>				
9 Capital Improvement Projects	18,563,351	6,718,477	4,637,000	400%
10 District Property Master Plan	790,500	441,867	541,000	146%
11 Other Capital Spending	760,600	352,694	405,000	188%
12 Fixed Assets	995,000	1,036,535	1,022,863	97%
13 Interest Expense	2,211,979	577,562	501,991	
14 Total Capital Expenditures	23,321,430	9,127,134	7,107,854	328%
15 Operations	5,539,937	4,597,746	4,879,412	114%
16 Administration	1,767,086	2,434,942	1,689,509	105%
17 Outside Services	895,488	915,055	842,396	106%
18 <b>Total Expenditures</b>	<b>31,523,941</b>	<b>17,074,877</b>	<b>14,519,170</b>	<b>217%</b>
19 <b>Change in Balance Sheet Account (assets &amp; liabilities)</b>	<b>(56,868,832)</b>	<b>532,636</b>	<b>1,525,021</b>	
<i>(This represents cash amounts paid to reduce debt and/or cash amounts received against Accounts Receivable)</i>				
20 <b>Net Cash Outlay (Inflow) for Fiscal Year</b>	<b>(39,603,520)</b>	<b>3,385,640</b>	<b>1,119,601</b>	



**Sanitary District No. 1 of Marin County  
dba Ross Valley Sanitary District  
FY 2012-13 Operations Budget**

		Budget	Projected	Budget	FY 12-13
		FY 2012-13	FY 2011-12	PY 2011-12	% of FY 11-12 Budget
<b>Maintenance &amp; Operations</b>					
<b>Revenue</b>					
1	Sewer Service Charges	14,098,065	15,319,777	16,321,954	86%
2	Other Income	143,076	287,848	162,116	88%
3	Gross Revenue	<b>14,241,141</b>	<b>15,607,624</b>	<b>16,484,070</b>	<b>86%</b>
<b>Less: Revenue Transfers</b>					
4	To: CMSA for Treatment	3,318,275	4,270,828	4,513,097	74%
5	To: CMSA for Debt Service	2,541,821	2,897,566	2,754,508	92%
6	Total Revenue Transfers to CMSA	<b>5,860,097</b>	<b>7,168,394</b>	<b>7,267,605</b>	<b>81%</b>
7	Total Operating Revenue	<b>8,381,044</b>	<b>8,439,230</b>	<b>9,216,465</b>	<b>91%</b>
<b>Expenses</b>					
<b>General Operations Expenses</b>					
8	Wages & Benefits - Operations	4,147,229	3,676,035	3,701,794	112%
9	Total Wages & Benefits - Operations	<b>4,147,229</b>	<b>3,676,035</b>	<b>3,701,794</b>	<b>112%</b>
10	Pump/Lift Station - Maintenance & Repair	459,712	355,523	357,497	129%
11	Pipeline - Maintenance & Repair	853,872	566,188	820,121	104%
12	Education, Certification & Training - Operations	50,420	-	-	
13	Engineering - Maintenance & Repair	5,700	-	-	
14	General Admin (Dues, Property Tax, Postage, Travel) - Operations	2,520	-	-	
15	Office Supplies/Equipment - Operations	20,484	-	-	
16	Total Maint. Repair & Inspection	<b>1,392,708</b>	<b>921,711</b>	<b>1,177,618</b>	<b>118%</b>
17	<b>Total General Operations Expenses</b>	<b>5,539,937</b>	<b>4,597,746</b>	<b>4,879,412</b>	<b>114%</b>
<b>Administrative Expenses</b>					
18	Wages & Benefits - Administrative	1,062,013	1,035,582	979,118	108%
19	Total Wages & Benefits - Admin	<b>1,062,013</b>	<b>1,035,582</b>	<b>979,118</b>	<b>108%</b>
20	Office Supplies/Equipment - Admin	94,170	108,468	110,306	85%
21	General Administrative (Dues, Property Tax, Postage, Travel)	78,811	805,947	96,361	82%
22	County Collection Fees	89,332	96,831	110,920	81%
23	Education, Certification & Training	47,072	16,810	25,941	181%
24	Facilities (Utilities, Services, Security) - Admin	86,344	78,257	73,452	118%
25	Board Expenditures	58,854	45,624	40,110	147%
26	Excess Liability/Deductible	47,440	47,164	61,281	77%
27	Insurance	203,049	200,260	192,021	106%
28	Total General Administrative Expenses	<b>705,073</b>	<b>1,399,360</b>	<b>710,391</b>	<b>99%</b>
29	<b>Total Administrative Expenses</b>	<b>1,767,086</b>	<b>2,434,942</b>	<b>1,689,509</b>	<b>105%</b>
<b>Outside Services</b>					
<b>Community Outreach</b>					
30	Public Relations	84,000	84,000	84,000	100%
31	Legislative Consulting	36,000	45,000	96,000	38%
32	Misc Meetings/Events/Other	28,800	32,129	23,437	123%
33	Total Community Outreach	<b>148,800</b>	<b>161,129</b>	<b>203,437</b>	<b>73%</b>
34	<b>Professional Services - Accounting &amp; IT</b>	<b>66,348</b>	<b>44,807</b>	<b>54,682</b>	<b>121%</b>
<b>Legal/Outside Consultant Services</b>					
35	Basic Services Legal Budget	180,000	180,000	180,000	100%
36	Research, Writing, Human Resources Management	48,792	40,868	33,191	147%
37	Litigation (Anticipated & Other)	304,344	351,011	100,000	304%
38	Other Legal	147,204	137,240	271,087	54%
39	Total Legal Expenses	<b>680,340</b>	<b>709,119</b>	<b>584,277</b>	<b>116%</b>
40	<b>Total Outside Services</b>	<b>895,488</b>	<b>915,055</b>	<b>842,396</b>	<b>106%</b>
41	<b>Total Maintenance &amp; Operations Expenses</b>	<b>8,202,511</b>	<b>7,947,743</b>	<b>7,411,316</b>	<b>111%</b>
42	<b>Maintenance &amp; Operations Net Results</b>	<b>178,533</b>	<b>491,487</b>	<b>1,805,149</b>	<b>10%</b>

**Sanitary District No. 1 of Marin County  
dba Ross Valley Sanitary District  
FY 2012-13 Capital Budget**

	Budget FY 2012-13	Projected FY 2011-12	Budget PY 2011-12	FY 12-13 % of FY 11-12 Budget
<b>Revenue</b>				
1 Ad Valorem Property Tax	5,200,000	5,065,654	5,000,000	104%
2 Larkspur Ad Valorem Tax Equivalent	660,661	675,514	681,842	97%
3 Connection Fees	16,924	41,475	26,284	64%
4 Total Capital Revenue	<b>5,877,585</b>	<b>5,782,643</b>	<b>5,708,126</b>	<b>103%</b>
<b>Expense</b>				
5 Interest Expense (on Capital Loans/Bonds)	2,211,979	577,562	501,991	441%
<b>Capital Projects &amp; Upgrades</b>				
<b>Capital Improvement Projects</b>				
6 Pipe Replacement	16,319,751	6,428,645	4,066,000	401%
7 Pump Station Improvements	2,534,100	-	321,000	789%
8 Lateral Replacement Program	500,000	289,832	250,000	200%
9 Total Capital Improvement Projects	<b>19,353,851</b>	<b>7,160,344</b>	<b>5,178,000</b>	<b>374%</b>
<b>Other Capital Spending</b>				
10 Engineering/Studies (Includes Flow-Based Rate Study)	240,000	201,004	170,000	141%
11 Pump Station-Fixed Assets	100,000	64,981	100,000	100%
12 General & Emergency - Program/Studies	420,600	86,709	135,000	312%
13 Total Other Capital Spending	<b>760,600</b>	<b>352,694</b>	<b>405,000</b>	<b>188%</b>
<b>Fixed Assets Purchased</b>				
14 Software - CMMS: Service Calls, Maps, Video, Reg. Rpt.	80,000	96,794	150,000	53%
15 Equipment	880,000	741,752	600,000	147%
16 Vehicles	35,000	197,988	272,863	13%
17 Total Fixed Assets Purchased	<b>995,000</b>	<b>1,036,535</b>	<b>1,022,863</b>	<b>97%</b>
18 Total Capital Projects & Upgrades	<b>21,109,451</b>	<b>8,549,573</b>	<b>6,605,863</b>	<b>247%</b>
19 Bond Proceeds - Net of Prior Year Reimbursements	<b>57,445,679</b>	<b>8,549,573</b>	<b>6,605,863</b>	<b>672%</b>
20 Capital Net Results	<b>40,001,834</b>	<b>(3,344,491)</b>	<b>(1,399,728)</b>	
<b>Cash Projection Through Year End</b>				
21 Cash Balance Begin Period	<b>7,072,608</b>	<b>10,458,248</b>	<b>10,458,312</b>	
22 Add: Income - Operations	8,381,044	8,439,230	9,216,465	
23 Add: Income - Property Tax/Connection Fees	5,877,585	5,782,643	5,708,126	
24 Less: Spending Capital Projects	23,321,430	9,127,134	7,107,854	
25 Less: Spending Operations & Admin	8,202,511	7,947,743	7,411,316	
26 Add: Bond Proceeds	59,419,115	-	-	
27 Less: Change in Balance Sheet Accounts	2,550,283	532,636	1,525,021	
28 Cash Balance End Period	<b>46,676,128</b>	<b>7,072,608</b>	<b>9,338,712</b>	

**Sanitary District No. 1 of Marin County  
 dba Ross Valley Sanitary District  
 FY 2012-13 Department Budgets - Summary**

Department & Type		FY 2012-13 Budget	FY 2011-12 Projected	FY 2011-12 Budget	FY 2010-11 Actual
<b>Personnel Expenses</b>					
1	<b>Administration Total</b>	<b>1,062,013</b>	<b>1,039,588</b>	<b>979,117</b>	<b>1,178,885</b>
2	Administrative	1,040,173	1,000,154	942,990	1,142,312
3	Board - Personnel	-	-	-	-
4	Retiree	21,840	39,434	36,128	36,573
5	<b>Operation Total</b>	<b>4,147,229</b>	<b>3,672,029</b>	<b>3,701,794</b>	<b>2,955,991</b>
6	Inspection	748,049	684,785	764,644	512,931
7	Line Maintenance	1,372,449	1,636,001	1,514,463	1,347,673
8	Line Repair	577,255	187,305	416,197	193,222
9	Operations Management	841,952	786,978	627,786	594,044
10	Pumps	607,523	376,959	378,703	308,121
11	<b>Total Personnel Expenses</b>	<b>5,209,242</b>	<b>4,711,617</b>	<b>4,680,911</b>	<b>4,134,876</b>
<b>Other Expenses</b>					
12	Administrative	645,319	1,354,558	665,379	680,287
13	Board	59,754	45,624	45,012	37,352
14	Outside Service	895,488	915,055	842,396	783,311
15	Inspection	101,672	68,269	61,040	50,451
16	Line Maintenance	449,712	351,494	300,367	318,595
17	Line Repair	331,584	113,497	457,709	770,498
18	Operations Management	16,260	1,878	1,006	1,054
19	Pumps	493,480	385,752	357,497	347,433
20	<b>Total Other Expenses</b>	<b>2,993,269</b>	<b>3,236,126</b>	<b>2,730,405</b>	<b>2,988,980</b>
21	<b>Total All Expenses</b>	<b>8,202,511</b>	<b>7,947,743</b>	<b>7,411,316</b>	<b>7,123,856</b>

**Sanitary District No. 1 of Marin County  
dba Ross Valley Sanitary District  
FY 2012-13 Department Budgets - All Departments**

		FY 2012-13	FY 2011-12	FY 2011-12	FY 2010-11
	Expense Type	Budget	Projected	Budget	Actual
1	Wage/Salary Expense	3,452,977	3,197,592	3,279,736	2,846,211
2	Overtime Expense	247,246	182,575	192,622	212,038
3	Capitalized Labor	(518,259)	(331,570)	(550,552)	(447,869)
4	Payroll Taxes - Employer	289,473	263,807	250,877	239,478
5	Retirement - Employee	229,780	146,177	155,766	166,048
6	Retirement - Employer	620,324	564,117	594,157	381,871
7	457b Employer Matching-Admin	7,800	8,200	7,800	5,700
8	Insurance - Disability	31,362	23,262	25,344	15,681
9	Insurance - Health	638,668	534,244	612,215	423,236
10	Insurance - Health In-Lieu	82,864	75,735	49,057	51,437
11	Insurance - Workers Comp	83,503	6,955	8,939	8,600
12	Boot Allowance	7,032	4,774	5,750	3,432
13	Employee Fitness	3,900	1,520	3,600	(20)
14	Medical-Employment Exams	10,972	12,709	3,600	1,777
15	Recruitment-Retention	6,600	5,483	27,000	86,753
16	Temporary Help	15,000	16,038	15,000	140,504
17	<b>Subtotal, Personnel Expenses</b>	<b>5,209,242</b>	<b>4,711,617</b>	<b>4,680,911</b>	<b>4,134,876</b>
18	Administrative - Miscellaneous	501	1,475	3,764	2,980
19	Auto-Mileage-Taxi-Parking-Tolls	6,966	6,072	6,693	7,083
20	Bank Fees	1,732	1,799	2,427	2,354
21	Board Fees	49,968	42,241	36,208	34,484
22	Board Fees - Administrative	-	-	1,229	468
23	Board Fees - CMSA	3,846	3,384	2,673	2,400
24	Business Meals	960	-	1,411	1,165
25	Community Outreach/Legal Notice & Newsletter	148,800	161,129	203,437	134,337
26	Concrete, Soil & Rock	36,000	29,958	30,191	38,582
27	Conferences	5,750	4,032	1,882	1,277
28	County Collection Fees	89,332	96,831	110,920	105,943
29	Dues, Association & Permits	74,376	28,377	27,388	25,177
30	Equipment Rental	10,800	-	19	19
31	Equipment Repair	180,000	103,829	81,343	68,644
32	Excess Liability Fund (Small Claims)	47,440	47,164	61,281	91,372
33	Facilities - Garbage	8,679	7,083	5,387	5,287
34	Facilities - Janitorial	5,850	5,396	5,853	5,678
35	Facilities - Security	41,550	34,736	28,069	39,637
36	Fines & Penalties	-	707,491	2,864	2,781
37	Hotel Accomodations	3,127	580	3,892	3,859
38	Insurance-General Liability	203,049	200,260	192,021	166,805
39	Licenses-DMV	712	490	202	237
40	LLC Property Site Development	-	-	-	1,825
41	Maintenance-Emergency Repairs	249,996	-	357,000	672,817
42	Maintenance-FOG Program	6,000	27,854	13,333	15,988
43	Maintenance-Sealing, Testing	38,400	6,939	9,712	9,759
44	Meetings	12,291	3,692	4,787	4,967
45	Office Equipment	16,800	7,804	2,575	-
46	Office Equipment Rental	30,823	34,986	41,573	41,479
47	Office Supplies	44,822	39,898	37,600	36,339
48	Outside Services	-	4,203	24,966	19,447
49	Postage - Shipping	30,000	29,703	17,435	22,831
50	Professional Services - Accounting	21,000	18,000	20,000	31,800
51	Professional Services - District Manager	-	-	515	-
52	Professional Services - Engineering	-	-	4,295	-
53	Professional Services - IT	23,112	5,618	17,262	16,985
54	Professional Services - Legal Employment Matters	48,792	40,868	33,191	31,767
55	Professional Services - Legal General	180,000	180,000	180,000	213,425
56	Professional Services - Legal Litigation	304,344	351,011	364,090	159,806
57	Professional Services-2000 LLC Litigation	-	-	-	151,077
58	Professional Services - 2000 LLC Improvements since 2009	-	3,050	-	-
59	Professional Services-Other	147,204	134,189	6,996	26,000
60	Property Tax Expense	18,000	20,573	19,813	17,736
61	Rent - Property Lease Agreement	40,776	40,776	40,776	56,820
62	Shop Supplies	246,960	234,163	162,691	160,950
63	Software & Maintenance	28,656	27,312	42,810	36,069
64	Stationary & Printing	22,210	25,780	28,558	30,549
65	Tools	34,380	22,507	33,707	31,291
66	Training - Education & Certification	22,884	16,320	25,941	27,024
67	Travel - Air	4,340	1,121	1,229	1,290
68	Utilities - Gas & Electric	187,000	183,075	209,880	205,838
69	Utilities - Telephone	55,825	53,157	54,137	53,246
70	Utilities - Water	24,000	22,017	10,379	10,517
71	Vehicle - Gas & Fuel	91,992	87,642	62,630	62,032
72	Vehicle - Repair & Maintenance	143,225	131,543	93,373	98,742
73	<b>Subtotal, Other Expenses</b>	<b>2,993,269</b>	<b>3,236,126</b>	<b>2,730,405</b>	<b>2,988,980</b>
74	<b>Total, All Expenses</b>	<b>8,202,511</b>	<b>7,947,743</b>	<b>7,411,316</b>	<b>7,123,856</b>

**Sanitary District No. 1 of Marin County  
dba Ross Valley Sanitary District  
FY 2012-13 Departmental Budgets - Administration Total**

	Expense Type	FY 2012-13 Budget	FY 2011-12 Projected	FY 2011-12 Budget	FY 2010-11 Actual
1	Wage/Salary Expense	716,048	644,927	604,207	688,262
2	Overtime Expense	15,984	5,531	19,016	12,506
3	Capitalized Labor	-	-	-	(17,216)
4	Payroll Taxes - Employer	45,358	68,795	40,970	73,213
5	Retirement - Employee	41,760	20,439	19,997	22,526
6	Retirement - Employer	97,160	126,700	109,458	80,611
7	457b Employer Matching-Admin	7,800	8,200	7,800	5,700
8	Insurance - Disability	4,488	4,414	4,488	2,086
9	Insurance - Health	97,470	119,466	122,421	80,245
10	Insurance - Health In-Lieu	4,800	4,006	-	366
11	Insurance - Workers Comp	14,645	1,360	1,560	1,573
12	Employee Fitness	600	1,520	3,600	(20)
13	Medical-Employment Exams	300	12,709	3,600	1,777
14	Recruitment-Retention	600	5,483	27,000	86,753
15	Temporary Help	15,000	16,038	15,000	140,504
16	<b>Subtotal, Personnel Expenses</b>	<b>1,062,013</b>	<b>1,039,588</b>	<b>979,118</b>	<b>1,178,885</b>
17	Administrative - Miscellaneous	501	1,475	3,764	2,980
18	Auto-Mileage-Taxi-Parking-Tolls	6,846	6,072	6,693	7,083
19	Bank Fees	1,732	1,799	2,427	2,354
20	Board Fees	49,968	42,241	36,208	34,484
21	Board Fees - Administrative	-	-	1,229	468
22	Board Fees - CMSA	3,846	3,384	2,673	2,400
23	Business Meals	840	-	1,411	1,165
24	Community Outreach/Legal Notice & Newsletter	148,800	161,129	203,437	134,337
25	Conferences	5,150	4,032	1,882	1,277
26	County Collection Fees	89,332	96,831	110,920	105,943
27	Dues, Association & Permits	36,696	28,377	27,388	25,177
28	Excess Liability Fund (Small Claims)	47,440	47,164	61,281	91,372
29	Facilities - Garbage	8,679	7,083	5,387	5,287
30	Facilities - Janitorial	5,850	5,396	5,853	5,678
31	Facilities - Security	41,550	34,736	28,069	39,637
32	Fines & Penalties	-	707,491	2,864	2,781
33	Hotel Accommodations	2,767	580	3,892	3,859
34	Insurance-General Liability	203,049	200,260	192,021	166,805
35	Licenses-DMV	712	490	202	237
36	LLC Property Site Development	-	-	-	1,825
37	Meetings	11,691	3,692	4,787	4,967
38	Office Equipment	6,000	7,804	2,575	-
39	Office Equipment Rental	30,823	34,986	41,573	41,479
40	Office Supplies	38,738	39,898	37,600	36,339
41	Postage - Shipping	30,000	29,703	17,435	22,831
42	Professional Services - Accounting	21,000	18,000	20,000	31,800
43	Professional Services - District Manager	-	-	515	-
44	Professional Services - IT	23,112	5,618	17,262	16,985
45	Professional Services - Legal Employment Matters	48,792	40,868	33,191	31,767
46	Professional Services - Legal General	180,000	180,000	180,000	213,425
47	Professional Services - Legal Litigation	304,344	351,011	364,090	159,806
48	Professional Services-2000 LLC Litigation	-	-	-	151,077
49	Professional Services - 2000 LLC Improvements since 2009	-	14,780	-	-
50	Professional Services-Other	147,204	134,189	6,996	26,000
51	Property Tax Expense	18,000	20,573	19,813	17,736
52	Software & Maintenance	22,236	21,189	17,420	18,115
53	Stationary & Printing	18,610	25,780	28,558	30,549
54	Training - Education & Certification	9,664	16,320	25,941	27,024
55	Travel - Air	4,100	1,121	1,229	1,290
56	Utilities - Telephone	30,265	31,043	34,143	32,688
57	Vehicle - Gas & Fuel	1,200	1,032	1,035	930
58	Vehicle - Repair & Maintenance	1,025	822	1,026	996
59	<b>Subtotal, Other Expenses</b>	<b>1,600,561</b>	<b>2,326,967</b>	<b>1,552,788</b>	<b>1,500,950</b>
60	<b>Total, All Expenses</b>	<b>2,662,574</b>	<b>3,366,555</b>	<b>2,531,905</b>	<b>2,679,835</b>

**Sanitary District No. 1 of Marin County  
dba Ross Valley Sanitary District  
FY 2012-13 Department Budgets - Admin**

	Expense Type	FY 2012-13 Budget	FY 2011-12 Projected	FY 2011-12 Budget	FY 2010-11 Actual
1	Wage/Salary Expense	716,048	644,927	604,207	688,262
2	Overtime Expense	15,984	5,531	19,016	12,506
3	Capitalized Labor	-	-	-	(17,216)
4	Payroll Taxes - Employer	45,358	68,795	40,970	73,213
5	Retirement - Employee	41,760	20,439	19,997	22,526
6	Retirement - Employer	97,160	126,700	109,458	80,611
7	457b Employer Matching-Admin	7,800	8,200	7,800	5,700
8	Insurance - Disability	4,488	4,414	4,488	2,086
9	Insurance - Health	75,630	80,032	86,293	43,672
10	Insurance - Health In-Lieu	4,800	4,006	-	366
11	Insurance - Workers Comp	14,645	1,360	1,560	1,573
12	Employee Fitness	600	1,520	3,600	(20)
13	Medical-Employment Exams	300	12,709	3,600	1,777
14	Recruitment-Retention	600	5,483	27,000	86,753
15	Temporary Help	15,000	16,038	15,000	140,504
16	<b>Subtotal, Personnel Expenses</b>	<b>1,040,173</b>	<b>1,000,154</b>	<b>942,990</b>	<b>1,142,312</b>
17	Administrative - Miscellaneous	501	1,475	3,764	2,980
18	Auto-Mileage-Taxi-Parking-Tolls	6,726	6,072	6,693	7,083
19	Bank Fees	1,732	1,799	2,427	2,354
19	Business Meals	-	-	1,411	1,165
20	Conferences	2,750	4,032	1,882	1,277
21	County Collection Fees	89,332	96,831	110,920	105,943
22	Dues, Association & Permits	36,696	28,377	27,388	25,177
23	Excess Liability Fund (Small Claims)	47,440	47,164	61,281	91,372
24	Facilities - Garbage	8,679	7,083	5,387	5,287
25	Facilities - Janitorial	5,850	5,396	5,853	5,678
26	Facilities - Security	41,550	34,736	28,069	39,637
27	Fines & Penalties	-	707,491	2,864	2,781
28	Hotel Accommodations	1,927	580	2,947	3,859
29	Insurance-General Liability	203,049	200,260	192,021	166,805
30	Licenses-DMV	712	490	202	237
31	LLC Property Site Development	-	-	-	1,825
32	Meetings	11,691	3,692	4,787	4,967
33	Office Equipment	6,000	7,804	2,575	-
34	Office Equipment Rental	30,823	34,986	41,573	41,479
35	Office Supplies	38,738	39,898	37,600	36,339
36	Postage - Shipping	30,000	29,703	17,435	22,831
37	Professional Services - District Manager	-	-	515	-
38	Property Tax Expense	18,000	20,573	19,813	17,736
39	Stationary & Printing	18,610	25,780	28,558	30,549
40	Training - Education & Certification	8,764	16,320	22,549	27,024
41	Travel - Air	3,260	1,121	664	1,290
42	Utilities - Telephone	30,265	31,043	34,143	32,688
43	Vehicle - Gas & Fuel	1,200	1,032	1,035	930
44	Vehicle - Repair & Maintenance	1,025	822	1,026	996
45	<b>Subtotal, Other Expenses</b>	<b>645,319</b>	<b>1,354,558</b>	<b>665,379</b>	<b>680,287</b>
46	<b>Total, All Expenses</b>	<b>1,685,492</b>	<b>2,354,712</b>	<b>1,608,369</b>	<b>1,822,599</b>

**Sanitary District No. 1 of Marin County  
 dba Ross Valley Sanitary District  
 FY 2012-13 Department Budgets - Admin/Board**

	<b>Expense Type</b>	<b>FY 2012-13 Budget</b>	<b>FY 2011-12 Projected</b>	<b>FY 2011-12 Budget</b>	<b>FY 2010-11 Actual</b>
1	Auto-Mileage-Taxi-Parking-Tolls	120	-	-	-
2	Board Fees	49,968	42,241	36,208	34,484
3	Board Fees - Administrative	-	-	1,229	468
4	Board Fees - CMSA	3,846	3,384	2,673	2,400
5	Business Meals	840	-	-	-
6	Conferences	2,400	-	-	-
7	Hotel Accomodations	840	-	945	-
8	Training - Education & Certification	900	-	3,392	-
9	Travel - Air	840	-	565	-
10	<b>Subtotal, Other Expenses</b>	<b>59,754</b>	<b>45,624</b>	<b>45,012</b>	<b>37,352</b>
11	<b>Total, All Expenses</b>	<b>59,754</b>	<b>45,624</b>	<b>45,012</b>	<b>37,352</b>

**Sanitary District No. 1 of Marin County  
 dba Ross Valley Sanitary District  
 FY 2012-13 Department Budgets - Admin/Outside Services**

	<b>Expense Type</b>	<b>FY 2012-13 Budget</b>	<b>FY 2011-12 Projected</b>	<b>FY 2011-12 Budget</b>	<b>FY 2010-11 Actual</b>
1	Community Outreach/Legal Notice & Newsletter	148,800	161,129	203,437	134,337
2	Professional Services - Accounting	21,000	18,000	20,000	31,800
3	Professional Services - IT	45,348	5,618	17,262	16,985
4	Professional Services - Legal Employment Matters	48,792	40,868	33,191	31,767
5	Professional Services - Legal General	180,000	180,000	180,000	213,425
6	Professional Services - Legal Litigation	304,344	351,011	364,090	159,806
7	Professional Services-2000 LLC Litigation	-	-	-	151,077
8	Professional Services - 2000 LLC Improvements since 2009	-	3,050	-	-
9	Professional Services-Other	147,204	134,189	6,996	26,000
10	Software & Maintenance	-	21,189	17,420	18,115
11	<b>Subtotal, Other Expenses</b>	<b>895,488</b>	<b>915,055</b>	<b>842,396</b>	<b>783,311</b>
12	<b>Total, All Expenses</b>	<b>895,488</b>	<b>915,055</b>	<b>842,396</b>	<b>783,311</b>

**Sanitary District No. 1 of Marin County  
 dba Ross Valley Sanitary District  
 FY 2012-13 Department Budgets - Admin/Retiree**

	<b>Expense Type</b>	<b>FY 2012-13 Budget</b>	<b>FY 2011-12 Projected</b>	<b>FY 2011-12 Budget</b>	<b>FY 2010-11 Actual</b>
1	Insurance - Health	21,840	39,434	36,128	36,573
2	<b>Subtotal, Personnel Expenses</b>	<b>21,840</b>	<b>39,434</b>	<b>36,128</b>	<b>36,573</b>
3	<b>Total, All Expenses</b>	<b>21,840</b>	<b>39,434</b>	<b>36,128</b>	<b>36,573</b>

**Sanitary District No. 1 of Marin County  
 dba Ross Valley Sanitary District  
 FY 2012-13 Department Budgets - Operations Total**

	<b>Expense Type</b>	<b>FY 2012-13 Budget</b>	<b>FY 2011-12 Projected</b>	<b>FY 2011-12 Budget</b>	<b>FY 2010-11 Actual</b>
1	Wage/Salary Expense	2,736,929	2,552,665	2,675,529	2,157,949
2	Overtime Expense	231,262	177,044	173,606	199,533
3	Capitalized Labor	(518,259)	(331,570)	(550,552)	(430,653)
4	Payroll Taxes - Employer	244,115	195,011	209,907	166,265
5	Retirement - Employee	188,020	125,738	135,769	143,522
6	Retirement - Employer	523,164	437,417	484,699	301,260
7	Insurance - Disability	26,874	18,848	20,856	13,594
8	Insurance - Health	541,199	414,778	489,795	342,991
9	Insurance - Health In-Lieu	78,064	71,728	49,057	51,071
10	Insurance - Workers Comp	68,858	5,595	7,379	7,028
11	Boot Allowance	7,032	4,774	5,750	3,432
12	Employee Fitness	3,300	-	-	-
13	Medical-Employment Exams	10,672	-	-	-
14	Recruitment-Retention	6,000	-	-	-
15	<b>Subtotal, Personnel Expenses</b>	<b>4,147,229</b>	<b>3,672,029</b>	<b>3,701,794</b>	<b>2,955,991</b>
16	Auto-Mileage-Taxi-Parking-Tolls	120	-	-	-
17	Business Meals	120	-	-	-
18	Concrete, Soil & Rock	36,000	29,958	30,191	38,582
19	Conferences	600	-	-	-
20	Dues, Association & Permits	37,680	-	-	-
21	Equipment Rental	10,800	-	19	19
22	Equipment Repair	180,000	103,829	81,343	68,644
23	Hotel Accomodations	360	-	-	-
24	Maintenance-Emergency Repairs	249,996	-	357,000	672,817
25	Maintenance-FOG Program	6,000	27,854	13,333	15,988
26	Maintenance-Sealing, Testing	38,400	6,939	9,712	9,759
27	Meetings	600	-	-	-
28	Office Equipment	10,800	-	-	-
29	Outside Services	-	4,203	24,966	19,447
30	Professional Services - Engineering	-	-	4,295	-
31	Rent - Property Lease Agreement	40,776	40,776	40,776	56,820
32	Shop Supplies	246,960	234,163	162,691	160,950
33	Software & Maintenance	6,420	6,123	25,390	17,954
34	Stationary & Printing	3,600	-	-	-
35	Tools	34,380	22,507	33,707	31,291
36	Training - Education & Certification	13,220	-	-	-
37	Travel - Air	240	-	-	-
38	Utilities - Gas & Electric	187,000	183,075	209,880	205,838
39	Utilities - Telephone	25,560	22,114	19,994	20,558
40	Utilities - Water	24,000	22,017	10,379	10,517
41	Vehicle - Gas & Fuel	90,792	86,610	61,595	61,102
42	Vehicle - Repair & Maintenance	142,200	130,721	92,347	97,745
43	<b>Subtotal, Other Expenses</b>	<b>1,392,708</b>	<b>920,889</b>	<b>1,177,618</b>	<b>1,488,030</b>
44	<b>Total, All Expenses</b>	<b>5,539,937</b>	<b>4,592,918</b>	<b>4,879,412</b>	<b>4,444,021</b>

**Sanitary District No. 1 of Marin County  
dba Ross Valley Sanitary District  
FY 2012-13 Department Budgets - Ops/Line/Inspection**

	Expense Type	FY 2012-13 Budget	FY 2011-12 Projected	FY 2011-12 Budget	FY 2010-11 Actual
1	Wage/Salary Expense	406,692	462,566	483,554	393,843
2	Overtime Expense	61,234	16,720	28,157	24,063
3	Capitalized Labor	-	(536)	-	(71,906)
4	Payroll Taxes - Employer	55,610	39,732	37,988	26,410
5	Retirement - Employee	8,296	14,984	17,769	19,858
6	Retirement - Employer	87,866	71,899	87,601	48,166
7	Insurance - Disability	7,446	3,783	4,020	2,793
8	Insurance - Health	99,500	74,048	103,342	68,051
9	Insurance - Workers Comp	16,617	836	1,212	1,155
10	Boot Allowance	1,260	752	1,000	500
11	Employee Fitness	600	-	-	-
12	Medical-Employment Exams	1,729	-	-	-
13	Recruitment-Retention	1,200	-	-	-
14	<b>Subtotal, Personnel Expenses</b>	<b>748,049</b>	<b>684,785</b>	<b>764,644</b>	<b>512,931</b>
15	Dues, Association & Permits	1,680	-	-	-
16	Maintenance-FOG Program	6,000	27,854	13,333	15,988
17	Maintenance-Sealing, Testing	31,800	-	-	-
18	Office Equipment	2,400	-	-	-
19	Shop Supplies	21,192	14,001	13,298	7,934
20	Software & Maintenance	-	6,123	12,360	6,154
21	Tools	2,628	-	-	-
22	Training - Education & Certification	6,380	-	-	-
23	Utilities - Telephone	7,200	4,269	3,266	3,177
24	Vehicle - Gas & Fuel	13,392	11,246	8,173	7,396
25	Vehicle - Repair & Maintenance	9,000	4,776	10,610	9,801
26	<b>Subtotal, Other Expenses</b>	<b>101,672</b>	<b>68,269</b>	<b>61,040</b>	<b>50,451</b>
27	<b>Total, All Expenses</b>	<b>849,721</b>	<b>753,055</b>	<b>825,683</b>	<b>563,382</b>

**Sanitary District No. 1 of Marin County  
dba Ross Valley Sanitary District  
FY 2012-13 Department Budgets - Ops/Line/Maintenance**

	Expense Type	FY 2012-13 Budget	FY 2011-12 Projected	FY 2011-12 Budget	FY 2010-11 Actual
1	Wage/Salary Expense	1,035,540	1,110,192	939,439	876,841
2	Overtime Expense	109,256	91,312	81,893	93,523
3	Capitalized Labor	(518,259)	(126,226)	-	(56,275)
4	Payroll Taxes - Employer	85,275	83,857	77,282	76,849
5	Retirement - Employee	105,753	50,929	55,135	59,634
6	Retirement - Employer	246,823	200,292	170,189	128,063
7	Insurance - Disability	8,178	6,193	7,068	5,979
8	Insurance - Health	189,273	143,136	127,789	110,488
9	Insurance - Health In-Lieu	78,064	71,728	49,057	46,598
10	Insurance - Workers Comp	21,973	2,698	3,612	3,440
11	Boot Allowance	3,516	1,890	3,000	2,532
12	Employee Fitness	1,200	-	-	-
13	Medical-Employment Exams	3,457	-	-	-
14	Recruitment-Retention	2,400	-	-	-
15	<b>Subtotal, Personnel Expenses</b>	<b>1,372,449</b>	<b>1,636,001</b>	<b>1,514,463</b>	<b>1,347,673</b>
16	Dues, Association & Permits	2,880	-	-	-
17	Equipment Rental	3,600	-	-	-
18	Office Equipment	2,100	-	-	-
19	Rent - Property Lease Agreement	40,776	40,776	40,776	56,820
20	Shop Supplies	182,520	122,911	97,140	97,328
21	Software & Maintenance	6,420	-	13,030	11,800
22	Tools	26,496	22,507	33,707	31,291
23	Training - Education & Certification	2,880	-	-	-
24	Utilities - Telephone	6,720	9,572	8,552	8,631
25	Vehicle - Gas & Fuel	48,720	49,364	39,587	40,761
26	Vehicle - Repair & Maintenance	120,000	99,424	57,863	62,204
27	<b>Subtotal, Other Expenses</b>	<b>449,712</b>	<b>351,494</b>	<b>300,367</b>	<b>318,595</b>
28	<b>Total, All Expenses</b>	<b>1,822,161</b>	<b>1,987,495</b>	<b>1,814,830</b>	<b>1,666,267</b>

**Sanitary District No. 1 of Marin County  
dba Ross Valley Sanitary District  
FY 2012-13 Department Budgets - Ops/Line/Repair**

	Expense Type	FY 2012-13 Budget	FY 2011-12 Projected	FY 2011-12 Budget	FY 2010-11 Actual
1	Wage/Salary Expense	340,440	192,733	527,546	245,978
2	Overtime Expense	36,131	28,345	40,983	44,894
3	Capitalized Labor	-	(180,534)	(455,489)	(250,827)
4	Payroll Taxes - Employer	24,572	18,769	42,816	21,472
5	Retirement - Employee	13,711	14,905	22,561	17,176
6	Retirement - Employer	50,364	36,051	95,570	35,478
7	Insurance - Disability	3,048	3,607	4,644	1,262
8	Insurance - Health	99,477	70,879	135,547	74,260
9	Insurance - Health In-Lieu	-	-	-	2,556
10	Insurance - Workers Comp	6,512	910	1,018	970
11	Boot Allowance	1,500	1,640	1,000	4
12	Employee Fitness	600	-	-	-
13	Medical-Employment Exams	300	-	-	-
14	Recruitment-Retention	600	-	-	-
15	<b>Subtotal, Personnel Expenses</b>	<b>577,255</b>	<b>187,305</b>	<b>416,197</b>	<b>193,222</b>
16	Concrete, Soil & Rock	36,000	29,958	30,191	38,582
17	Dues, Association & Permits	7,680	-	-	-
18	Equipment Rental	3,600	-	19	19
19	Maintenance-Emergency Repairs	249,996	-	357,000	672,817
20	Office Equipment	2,400	-	-	-
21	Outside Services	-	4,203	24,966	19,447
22	Professional Services - Engineering	-	-	4,295	-
23	Shop Supplies	3,936	55,261	17,614	15,163
24	Tools	2,628	-	-	-
25	Training - Education & Certification	1,680	-	-	-
26	Utilities - Telephone	1,800	1,783	2,556	2,454
27	Vehicle - Gas & Fuel	9,780	8,849	5,288	4,633
28	Vehicle - Repair & Maintenance	6,000	13,442	15,779	17,385
29	<b>Subtotal, Other Expenses</b>	<b>331,584</b>	<b>113,497</b>	<b>457,709</b>	<b>770,498</b>
30	<b>Total, All Expenses</b>	<b>908,839</b>	<b>300,802</b>	<b>873,906</b>	<b>963,720</b>

**Sanitary District No. 1 of Marin County  
dba Ross Valley Sanitary District  
FY 2012-13 Department Budgets - Ops/Line/Mgmt**

	Expense Type	FY 2012-13 Budget	FY 2011-12 Projected	FY 2011-12 Budget	FY 2010-11 Actual
1	Wage/Salary Expense	568,584	571,205	499,259	456,577
2	Capitalized Labor	-	(24,274)	(95,063)	(51,645)
3	Payroll Taxes - Employer	49,334	34,975	32,826	26,075
4	Retirement - Employee	36,751	32,936	32,558	33,011
5	Retirement - Employer	68,726	99,061	90,446	64,801
6	Insurance - Disability	5,382	3,386	3,600	2,375
7	Insurance - Health	92,373	69,092	63,240	61,971
8	Insurance - Workers Comp	15,545	596	922	878
9	Employee Fitness	600	-	-	-
10	Medical-Employment Exams	3,457	-	-	-
11	Recruitment-Retention	1,200	-	-	-
12	<b>Subtotal, Personnel Expenses</b>	<b>841,952</b>	<b>786,978</b>	<b>627,786</b>	<b>594,044</b>
13	Auto-Mileage-Taxi-Parking-Tolls	120	-	-	-
14	Business Meals	120	-	-	-
15	Conferences	600	-	-	-
16	Dues, Association & Permits	480	-	-	-
17	Hotel Accomodations	360	-	-	-
18	Meetings	600	-	-	-
19	Office Equipment	3,000	-	-	-
20	Stationary & Printing	3,600	-	-	-
21	Training - Education & Certification	600	-	-	-
22	Travel - Air	240	-	-	-
23	Utilities - Telephone	4,440	1,878	255	1,054
24	Vehicle - Gas & Fuel	900	-	324	-
25	Vehicle - Repair & Maintenance	1,200	-	426	-
26	<b>Subtotal, Other Expenses</b>	<b>16,260</b>	<b>1,878</b>	<b>1,006</b>	<b>1,054</b>
27	<b>Total, All Expenses</b>	<b>858,212</b>	<b>788,855</b>	<b>628,792</b>	<b>595,098</b>

**Sanitary District No. 1 of Marin County  
 dba Ross Valley Sanitary District  
 FY 2012-13 Department Budgets - Ops/Pumps**

	<b>Expense Type</b>	<b>FY 2012-13 Budget</b>	<b>FY 2011-12 Projected</b>	<b>FY 2011-12 Budget</b>	<b>FY 2010-11 Actual</b>
1	Wage/Salary Expense	385,673	215,969	225,731	184,710
2	Overtime Expense	24,641	40,667	22,573	37,053
3	Payroll Taxes - Employer	29,325	17,679	18,995	15,460
4	Retirement - Employee	23,509	11,984	7,746	13,843
5	Retirement - Employer	69,384	30,113	40,893	24,751
6	Insurance - Disability	2,820	1,879	1,524	1,185
7	Insurance - Health	60,575	57,622	59,876	28,221
8	Insurance - Health In-Lieu	-	-	-	1,917
9	Insurance - Workers Comp	8,211	554	615	585
10	Boot Allowance	756	492	750	395
11	Employee Fitness	300	-	-	-
12	Medical-Employment Exams	1,729	-	-	-
13	Recruitment-Retention	600	-	-	-
14	<b>Subtotal, Personnel Expenses</b>	<b>607,523</b>	<b>376,959</b>	<b>378,703</b>	<b>308,121</b>
15	Dues, Association & Permits	24,960	-	-	-
16	Equipment Rental	3,600	-	-	-
17	Equipment Repair	180,000	103,829	81,343	68,644
18	Office Equipment	900	-	-	-
19	Shop Supplies	39,312	41,989	34,639	40,525
20	Tools	2,628	-	-	-
21	Training - Education & Certification	1,680	-	-	-
22	Utilities - Gas & Electric	187,000	183,075	209,880	205,838
23	Utilities - Telephone	5,400	4,612	5,365	5,242
24	Utilities - Water	24,000	22,017	10,379	10,517
25	Vehicle - Gas & Fuel	18,000	17,150	8,222	8,312
26	Vehicle - Repair & Maintenance	6,000	13,079	7,668	8,355
27	<b>Subtotal, Other Expenses</b>	<b>493,480</b>	<b>385,752</b>	<b>357,497</b>	<b>347,433</b>
28	<b>Total, All Expenses</b>	<b>1,101,003</b>	<b>762,711</b>	<b>736,200</b>	<b>655,553</b>

**Sanitary District No. 1 of Marin County  
dba Ross Valley Sanitary District  
Statement of Cash Flows**

For the Fiscal Year Ended June 30					
	2013	2012	2011	2010	2009
	Budgeted	Projected			
<b>Cash Flows from Operating Activities:</b>					
1 Sewer Service, Connection, and Other Charges Collected	\$ 14,796,934	\$ 16,147,029	\$ 15,459,144	\$ 15,185,100	\$ 14,792,667
2 Sewage Processing & Debt Service Cost-CMSA	(5,860,097)	(7,168,394)	(7,992,338)	(7,888,197)	(7,677,711)
3 Operating & Maintenance	(6,994,820)	(4,919,053)	(5,985,169)	(2,996,656)	(3,664,730)
4 General & Administration	(2,683,002)	(3,128,647)	(2,436,488)	(4,610,192)	(2,114,389)
5 <b>Cash from Operating Activities:</b>	<b>(740,985)</b>	<b>930,936</b>	<b>(954,851)</b>	<b>(309,945)</b>	<b>1,335,837</b>
<b>Cash Flows from Capital and Non-Capital Financing Activities:</b>					
6 Property Taxes Collected	5,200,000	5,065,654	5,003,699	5,107,154	5,006,086
7 Investment Income	104,868	136,109	134,316	157,912	289,792
8 Proceeds from Borrowing/Bonds <sup>1</sup>	59,419,115	-	-	-	1,000,000
9 Acquisitions of Capital Assets	(21,109,451)	(8,549,573)	(12,672,779)	(1,292,490)	(5,846,541)
10 Principal Payments on Loans	(1,074,972)	(432,679)	(380,747)	(366,057)	(338,853)
11 Interest Paid	(2,211,979)	(577,562)	(591,717)	(421,495)	(416,777)
12 Disbursement of Cash for Note Receivable			(350,000)		
13 Capital Contributions Including Connection Fees	16,924	41,475	20,250	24,649	34,600
14 <b>Cash from by Capital &amp; Non-Capital Financing Activities:</b>	<b>40,344,505</b>	<b>(4,316,576)</b>	<b>(8,836,978)</b>	<b>3,209,673</b>	<b>(271,693)</b>
15 <b>Net Increase (Decrease) in Cash</b>	<b>39,603,520</b>	<b>(3,385,641)</b>	<b>(9,791,829)</b>	<b>2,899,728</b>	<b>1,064,144</b>
16 <b>Cash and Equivalents at Beginning of Year</b>	<b>7,072,608</b>	<b>10,458,249</b>	<b>20,250,078</b>	<b>17,350,350</b>	<b>16,286,206</b>
17 <b>Cash and Equivalents at End of Year</b>	<b>\$ 46,676,128</b>	<b>\$ 7,072,608</b>	<b>\$ 10,458,249</b>	<b>\$ 20,250,078</b>	<b>\$ 17,350,350</b>
<b>Cash and Cash Equivalents appear on the Statement of Net Assets as Follows:</b>					
18 <b>Cash and Cash Equivalents</b>	<b>\$ 9,965,717</b>	<b>\$ 7,038,425</b>	<b>\$ 10,424,081</b>	<b>\$ 20,226,868</b>	<b>\$ 17,302,493</b>
19 <b>Restricted Cash and Cash Equivalents</b>	<b>36,710,411</b>	<b>34,184</b>	<b>34,168</b>	<b>23,210</b>	<b>47,857.00</b>
20	<b>\$ 46,676,128</b>	<b>\$ 7,072,608</b>	<b>\$ 10,458,249</b>	<b>\$ 20,250,078</b>	<b>\$ 17,350,350</b>

Note 1: 2009 activity is a \$1 million loan for the purchase of the headquarters building on Kerner Blvd. The 2013 budget includes proceeds for sewer revenue bonds.

Source: Sanitary District No. 1 of Marin County audited financial statements.

**Sanitary District No. 1 of Marin County  
dba Ross Valley Sanitary District  
Statement of Net Assets**

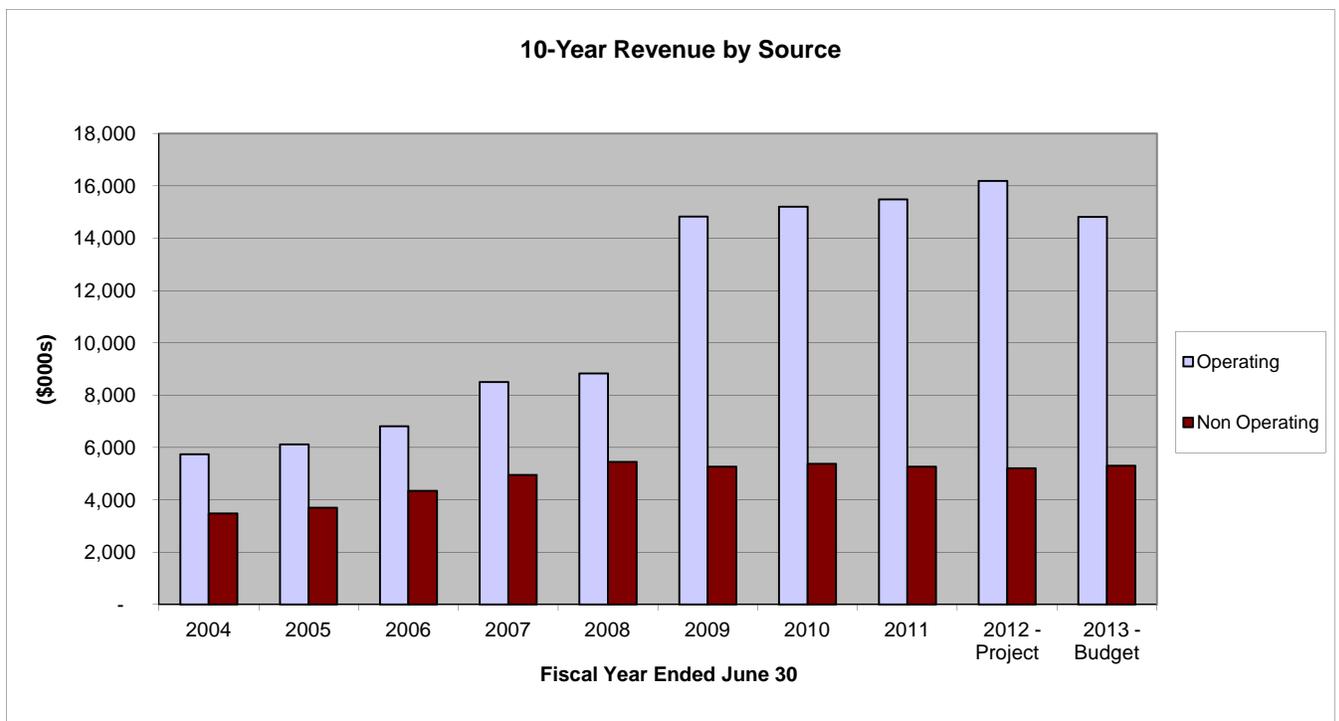
		<b>Budget</b>	<b>Projected</b>	<b>Actual</b>	<b>Actual</b>	<b>Actual</b>
		<b>2012-13</b>	<b>2011-12</b>	<b>2010-11</b>	<b>2009-10</b>	<b>2008-09</b>
<b>Assets</b>						
<b>Current Assets</b>						
1	Cash	9,965,717	7,038,425	10,424,081	20,226,868	17,302,493
2	Restricted Cash - Capital Expenditures	36,676,228	-	-	-	-
3	Property Tax & Interest Receivable	222,130	169,224	387,212	240,295	131,018
4	Prepaid Taxes & Insurance	75,419	75,419	53,782	104,261	106,118
5	<b>Total Current Assets</b>	<b>46,939,494</b>	<b>7,283,068</b>	<b>10,865,074</b>	<b>20,571,424</b>	<b>17,539,629</b>
<b>Long-Term Assets</b>						
6	Fixed Assets-Net	80,468,395	65,678,083	59,284,571	47,389,341	42,419,146
7	Funds for Canyon Road SAD	34,184	34,184	34,169	23,209	47,857
8	Long Term Loan Receivable	323,549	331,026	338,569	-	-
9	<b>Total Long-Term Assets</b>	<b>80,826,127</b>	<b>66,043,293</b>	<b>59,657,309</b>	<b>47,412,550</b>	<b>42,467,003</b>
10	<b>Total Assets</b>	<b>127,765,621</b>	<b>73,326,361</b>	<b>70,522,383</b>	<b>67,983,974</b>	<b>60,006,632</b>
<b>Liabilities, Retained Earnings &amp; Equity</b>						
<b>Current Liabilities</b>						
11	Accounts Payable & Accrued Expenses	4,044,449	5,499,332	4,476,836	5,544,443	572,363
12	Option Deposit LLC	-	-	-	450,000	-
13	Current Portion of Long Term Liabilities	65,214	65,214	65,214	536,747	502,951
14	<b>Total Current Liabilities</b>	<b>4,109,663</b>	<b>5,564,546</b>	<b>4,542,050</b>	<b>6,531,190</b>	<b>1,075,314</b>
<b>Long-Term Liabilities</b>						
15	Bond Payable/Other Long Term Liabilities	58,783,573	225,949	1,569,751	22,454	33,402
16	Option Deposit LLC	-	-	-	-	450,000
17	Loans Payable	8,872,272	9,085,754	9,518,432	9,914,339	10,295,091
18	OPEB Liability	124,685	99,685	74,685	52,687	27,597
19	<b>Total Long-Term Liabilities</b>	<b>67,780,530</b>	<b>9,411,387</b>	<b>11,162,868</b>	<b>9,989,479</b>	<b>10,806,090</b>
20	<b>Total Net Assets</b>	<b>55,875,428</b>	<b>58,350,428</b>	<b>54,817,464</b>	<b>51,463,305</b>	<b>48,125,228</b>

**Sanitary District No. 1 of Marin County  
dba Ross Valley Sanitary District  
Statement of Cash Flows by Month - FY 2012-13**

	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	2013
<b>Cash Flows from Operating Activities:</b>													
													Budgeted
1 Sewer Service, Connection, and Other Charges Collected	\$ 2,576	\$ 2,576	\$ 2,576	\$ 394,962	\$ 2,576	\$ 7,907,711	\$ 2,576	\$ 2,576	\$ 2,576	\$ 5,751,544	\$ 2,576	\$ 722,109	\$ 14,796,934
2 Sewage Processing & Debt Service Cost-CMSA	(2,710,516)	-	-	(829,569)	-	-	(1,490,442)	-	-	(829,569)	-	-	(5,860,097)
3 Operating & Maintenance	134,368	(786,507)	(435,928)	(471,748)	(461,901)	(444,328)	(481,894)	(440,216)	(1,999,625)	(470,949)	(489,912)	(646,178)	(6,994,820)
4 General & Administration	(212,050)	(219,691)	(208,553)	(509,808)	(216,307)	(29,311)	(216,296)	(205,338)	(208,989)	(259,813)	(216,531)	(180,315)	(2,683,002)
5 <b>Total Cash from Operating Activities:</b>	<b>(2,785,623)</b>	<b>(1,003,622)</b>	<b>(641,905)</b>	<b>(1,416,163)</b>	<b>(675,632)</b>	<b>7,434,072</b>	<b>(2,186,056)</b>	<b>(642,978)</b>	<b>(2,206,038)</b>	<b>4,191,212</b>	<b>(703,866)</b>	<b>(104,385)</b>	<b>(740,985)</b>
<b>Cash Flows from Capital &amp; Non-Capital Financing Activities:</b>													
6 Property Taxes Collected	-	-	-	-	91,437	2,305,502	527,164	1,227	4,527	1,671,590	42,380	556,173	5,200,000
7 Investment Income	1,500	39,351	8,606	1,500	1,500	8,606	1,500	22,093	8,606	1,500	1,500	8,606	104,868
8 Proceeds from Borrowing/Bonds	59,419,115	-	-	-	-	-	-	-	-	-	-	-	59,419,115
9 Acquisitions of Capital Assets	(2,230,453)	(2,230,453)	(2,230,453)	(2,245,453)	(1,616,328)	(1,616,328)	(1,589,660)	(1,452,383)	(1,423,508)	(1,571,478)	(1,451,478)	(1,451,478)	(21,109,451)
10 Principal Payments on Loans/Bonds	(1,581)	(1,472)	(1,479)	(1,600)	(1,492)	(1,613)	(427,645)	(1,513)	(1,860)	(631,527)	(1,647)	(1,541)	(1,074,972)
11 Interest Paid	(6,905)	(7,123)	(7,112)	(6,872)	(7,089)	(6,849)	(7,065)	(7,054)	(42,263)	(2,101,813)	(6,791)	(5,044)	(2,211,979)
12 Disbursement of Cash for Note Receivable	-	-	-	-	-	-	-	-	-	-	-	-	-
13 Capital Contributions Including Connection Fees	1,410	1,410	1,410	1,410	1,410	1,410	1,410	1,410	1,410	1,410	1,410	1,410	16,924
14 <b>Total Cash from Capital &amp; Non-Capital Financing Activities:</b>	<b>57,183,086</b>	<b>(2,198,287)</b>	<b>(2,229,027)</b>	<b>(2,251,014)</b>	<b>(1,530,561)</b>	<b>690,728</b>	<b>(1,494,296)</b>	<b>(1,436,219)</b>	<b>(1,453,088)</b>	<b>(2,630,318)</b>	<b>(1,414,626)</b>	<b>(891,874)</b>	<b>40,344,505</b>
15 <b>Net Increase (Decrease) in Cash</b>	<b>54,397,463</b>	<b>(3,201,909)</b>	<b>(2,870,932)</b>	<b>(3,667,177)</b>	<b>(2,206,193)</b>	<b>8,124,800</b>	<b>(3,680,352)</b>	<b>(2,079,197)</b>	<b>(3,659,125)</b>	<b>1,560,894</b>	<b>(2,118,492)</b>	<b>(996,258)</b>	<b>39,603,520</b>
16 <b>Cash and Equivalents at Beginning of Period</b>	<b>\$ 7,072,609</b>	<b>\$ 61,470,072</b>	<b>\$ 58,268,163</b>	<b>\$ 55,397,230</b>	<b>\$ 51,730,053</b>	<b>\$ 49,523,860</b>	<b>\$ 57,648,660</b>	<b>\$ 53,968,308</b>	<b>\$ 51,889,111</b>	<b>\$ 48,229,985</b>	<b>\$ 49,790,880</b>	<b>\$ 47,672,387</b>	<b>7,072,609</b>
17 <b>Cash and Equivalents at End of Period</b>	<b>\$ 61,470,072</b>	<b>\$ 58,268,163</b>	<b>\$ 55,397,230</b>	<b>\$ 51,730,053</b>	<b>\$ 49,523,860</b>	<b>\$ 57,648,660</b>	<b>\$ 53,968,308</b>	<b>\$ 51,889,111</b>	<b>\$ 48,229,985</b>	<b>\$ 49,790,880</b>	<b>\$ 47,672,387</b>	<b>\$ 46,676,129</b>	<b>\$ 46,676,129</b>
<b>Cash and Cash Equivalents appear on the Statement of Net Assets as Follows:</b>													
18 <b>Cash and Cash Equivalents</b>	<b>\$ 6,192,328</b>	<b>\$ 5,192,539</b>	<b>\$ 4,523,726</b>	<b>\$ 3,073,668</b>	<b>\$ 2,455,469</b>	<b>\$ 12,168,264</b>	<b>\$ 10,049,239</b>	<b>\$ 9,394,091</b>	<b>\$ 7,130,140</b>	<b>\$ 10,234,179</b>	<b>\$ 9,538,831</b>	<b>\$ 9,965,717</b>	<b>\$ 9,965,717</b>
19 <b>Restricted Cash and Cash Equivalents</b>	<b>55,277,743</b>	<b>53,075,623</b>	<b>50,873,504</b>	<b>48,656,384</b>	<b>47,068,390</b>	<b>45,480,396</b>	<b>43,919,069</b>	<b>42,495,019</b>	<b>41,099,845</b>	<b>39,556,700</b>	<b>38,133,556</b>	<b>36,710,411</b>	<b>\$ 36,710,411</b>
20	<b>\$ 61,470,071</b>	<b>\$ 58,268,162</b>	<b>\$ 55,397,230</b>	<b>\$ 51,730,053</b>	<b>\$ 49,523,859</b>	<b>\$ 57,648,659</b>	<b>\$ 53,968,308</b>	<b>\$ 51,889,111</b>	<b>\$ 48,229,985</b>	<b>\$ 49,790,879</b>	<b>\$ 47,672,387</b>	<b>\$ 46,676,128</b>	<b>\$ 46,676,128</b>

**Sanitary District No. 1 of Marin County**  
 dba Ross Valley Sanitary District  
**Schedule of Revenues by Source**  
 For the Years Ended June 30 , 2004 through 2013 Budget

Year Ended June 30*	Operating			Non Operating		Total
	Sewer Service Charges <sup>1</sup>	Inspection Fees	Other Operating	Property Tax Collection	Investment Income	
2004	5,592,573	119,524	32,042	3,336,420	138,542	9,219,101
2005	6,024,095	50,333	43,397	3,500,169	201,143	9,819,137
2006	6,687,368	102,640	25,229	3,976,085	366,952	11,158,274
2007	8,380,240	95,340	21,214	4,483,648	471,473	13,451,915
2008	8,395,486	80,376	355,341	5,161,429	291,443	14,284,075
2009	14,703,957	52,450	70,860	4,982,804	289,260	20,099,331
2010	15,116,407	49,713	38,765	5,221,295	157,912	20,584,092
2011	15,418,389	52,834	8,171	5,139,527	130,475	20,749,396
2012 - Project	15,995,291	31,357	161,857	5,065,654	136,109	21,390,268
2013 - Budget	14,758,726	31,440	23,692	5,200,000	104,868	20,118,726

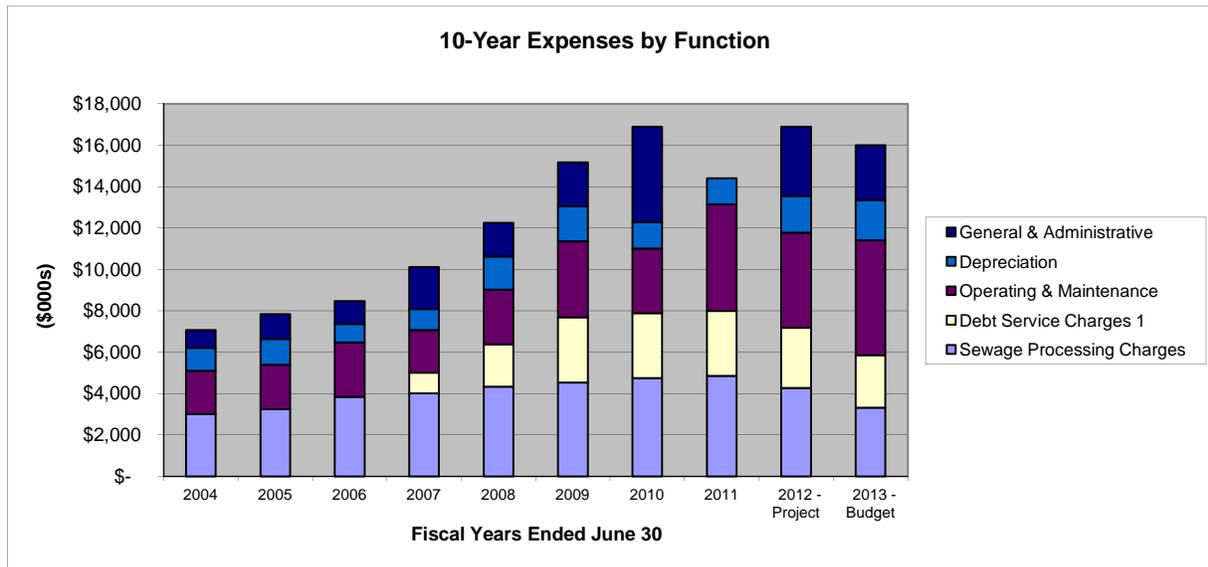


Source: Sanitary District No. 1 of Marin County records.

<sup>1</sup> Beginning in 2007, total sewer service charges included amounts collected for debt service from Central Marin Sanitation Agency (CMSA).

**Sanitary District No. 1 of Marin County**  
 dba Ross Valley Sanitary District  
**Schedule of Expenses by Function**  
 For the Years Ended June 30 , 2004 through 2013 Budget

Year Ended June 30*	Sewage Processing Charges	Debt Service Charges <sup>1</sup>	Operating & Maintenance	Depreciation	General & Administrative	Total
2004	3,004,400	-	2,094,993	1,114,958	846,251	7,060,602
2005	3,246,785	-	2,144,805	1,252,789	1,186,757	7,831,136
2006	3,838,765	-	2,624,655	897,147	1,113,164	8,473,731
2007	4,013,785	992,140	2,064,279	1,007,314	2,029,454	10,106,972
2008	4,328,324	2,044,513	2,647,371	1,604,009	1,627,929	12,252,146
2009	4,536,362	3,141,349	3,676,802	1,696,715	2,114,389	15,165,617
2010	4,749,158	3,139,039	3,119,015	1,272,602	4,612,049	16,891,863
2011	4,854,904	3,137,434	5,144,882	1,272,406	2,483,469	16,893,095
2012 - Project	4,270,828	2,897,566	4,597,746	1,777,559	3,349,997	16,893,696
2013 - Budget	3,318,275	2,541,821	5,539,937	1,937,539	2,662,574	16,000,147



Source: Sanitary District No. 1 of Marin County records.

<sup>1</sup> Debt service as charged by Central Marin Sanitation Agency who provides district sewage processing - \$ do not include debt service for District activities.

**Sanitary District No. 1 of Marin County**  
 dba Ross Valley Sanitary District  
**Historical and Current Fees/Rates<sup>1</sup> - Last 10 Fiscal Years**  
 For the Years Ended June 30 , 2003 through Budget 2013

<u>Fiscal Year</u>	<u>Sewer Service Charge (Ross Valley)</u>	<u>Sewer Service Charge (Larkspur)</u>	<u>CMSA Portion of Sewer Service Charge<sup>2</sup></u>	<u>Connection Fee</u>	<u>Inspection Fee</u>
2003	195	282	108	50	1,000
2004	203	287	112	50	1,000
2005	215	292	119	50	1,000
2006	220	292	129	50	1,000
2007	270	342	169	50	1,000
2008	270	342	215	50	1,000
2009 <sup>3</sup>	480	552	253	50	1,000
2010	500	572	260	50	1,000
2011	520	592	269	50	1,000
2012 <sup>4</sup>	638	864	285	50	1,000
2013	638	864	321	50	1,000

Source: Sanitary District No. 1 of Marin County records

<sup>1</sup> Rates are charged per EDU (Equivalent Domicile/Dwelling Unit). Residential properties are charged at a rate of one EDU per dwelling. Commercial properties' EDUs are calculated based on Winter Water Usage. Usage figures are supplied by the Marin Municipal Water District.

<sup>2</sup> Charge is collected on behalf of and repaid to Central Marin Sanitation Agency (CMSA). Includes both treatment charges and debt service fees for CMSA. This fee is incorporated into the Sewer Service Charge shown for Ross Valley and Larkspur and is not a separately charged fee. It is included here for informational purposes.

<sup>3</sup> The significant increase in 2009 was in accordance with Proposition 218 requirements for public notice and was necessitated by the sharp increases in CMSA Treatment Charges and CMSA Debt Service Fees.

<sup>4</sup> The significant increase in 2012 was in accordance with Proposition 218 requirements for public notice .

Sanitary District No. 1 of Marin County  
Debt Service Schedule  
FY2012/2013 Budget

FY	CIP Installment Loan #1 <sup>1</sup>			Kerner Building Loan <sup>2</sup>			Revolving Credit Line <sup>3</sup>			Bonds <sup>4</sup>			Total Debt Service Payments		
	Principal	Interest	Total Paid	Principal	Interest	Total Paid	Principal	Interest	Total Paid	Principal	Interest	Total Paid	Principal	Interest	Total Paid
2008/2009	336,201	391,712	727,913	2,652	7,416	10,067	-	-	-	-	-	-	338,852	399,128	737,981
2009/2010	349,612	378,301	727,913	16,445	43,959	60,404	-	-	-	-	-	-	366,057	422,261	788,318
2010/2011	363,558	364,355	727,913	17,189	43,215	60,404	1,500,000	1,194	1,501,194	-	-	-	1,880,747	408,765	2,289,512
2011/2012	378,060	349,853	727,913	17,851	42,553	60,404	3,000,000	5,574	3,005,574	-	-	-	3,395,911	397,980	3,793,891
2012/2013	393,141	334,772	727,913	18,833	41,627	60,459	-	-	-	435,352	1,925,477	2,360,828	847,326	2,301,875	3,149,201
2013/2014	408,823	319,090	727,913	19,832	40,770	60,602	-	-	-	1,555,000	2,671,110	4,226,110	428,656	359,860	788,516
2014/2015	425,131	302,782	727,913	20,878	39,868	60,746	-	-	-	1,585,000	2,640,010	4,225,010	446,010	342,650	788,660
2015/2016	442,090	285,823	727,913	21,864	39,026	60,890	-	-	-	1,615,000	2,608,310	4,223,310	463,954	324,850	788,804
2016/2017	459,725	268,188	727,913	23,109	37,925	61,034	-	-	-	1,665,000	2,559,860	4,224,860	482,834	306,113	788,948
2017/2018	478,063	249,850	727,913	24,304	36,875	61,178	-	-	-	1,730,000	2,493,260	4,223,260	502,367	286,725	789,092
2018/2019	497,133	230,780	727,913	25,552	35,770	61,322	-	-	-	1,785,000	2,441,360	4,226,360	522,686	266,550	789,236
2019/2020	516,964	210,949	727,913	26,762	34,704	61,466	-	-	-	1,855,000	2,369,960	4,224,960	543,726	245,654	789,380
2020/2021	537,586	190,327	727,913	28,217	33,393	61,610	-	-	-	1,910,000	2,314,310	4,224,310	565,803	223,721	789,524
2021/2022	559,030	168,883	727,913	29,643	32,111	61,754	-	-	-	1,985,000	2,237,910	4,222,910	588,673	200,994	789,668
2022/2023	581,330	146,583	727,913	31,133	30,765	61,898	-	-	-	2,065,000	2,158,510	4,223,510	612,463	177,348	789,812
2023/2024	604,519	123,394	727,913	32,611	29,431	62,042	-	-	-	2,170,000	2,055,260	4,225,260	637,130	152,825	789,956
2024/2025	628,633	99,280	727,913	34,317	27,870	62,186	-	-	-	2,280,000	1,946,760	4,226,760	662,950	127,150	790,100
2025/2026	653,710	74,204	727,913	36,019	26,312	62,330	-	-	-	2,390,000	1,832,760	4,222,760	689,729	100,515	790,244
2026/2027	679,786	48,127	727,913	37,798	24,676	62,474	-	-	-	2,510,000	1,713,260	4,223,260	717,585	72,803	790,388
2027/2028	706,903	21,010	727,913	39,596	23,023	62,618	-	-	-	2,640,000	1,587,760	4,227,760	746,499	44,033	790,532
2028/2029	-	-	-	41,600	21,162	62,762	-	-	-	2,405,000	1,455,760	3,860,760	41,600	21,162	62,762
2029/2030	-	-	-	43,632	19,274	62,906	-	-	-	2,160,000	1,335,510	3,495,510	43,632	19,274	62,906
2030/2031	-	-	-	45,757	17,293	63,050	-	-	-	2,240,000	1,259,910	3,499,910	45,757	17,293	63,050
2031/2032	-	-	-	47,937	15,258	63,194	-	-	-	2,315,000	1,181,510	3,496,510	47,937	15,258	63,194
2032/2033	-	-	-	50,297	13,041	63,338	-	-	-	2,395,000	1,100,485	3,495,485	50,297	13,041	63,338
2033/2034	-	-	-	52,724	10,758	63,482	-	-	-	2,485,000	1,011,870	3,496,870	52,724	10,758	63,482
2034/2035	-	-	-	55,261	8,366	63,626	-	-	-	2,580,000	919,925	3,499,925	55,261	8,366	63,626
2035/2036	-	-	-	57,897	5,873	63,770	-	-	-	2,675,000	824,465	3,499,465	57,897	5,873	63,770
2036/2037	-	-	-	60,683	3,231	63,914	-	-	-	2,770,000	725,490	3,495,490	60,683	3,231	63,914
2037/2038	-	-	-	39,605	634	40,239	-	-	-	2,875,000	623,000	3,498,000	39,605	634	40,239
2038/2039	-	-	-	39,605	634	40,239	-	-	-	2,990,000	508,000	3,498,000	39,605	634	40,239
2039/2040	-	-	-	39,605	634	40,239	-	-	-	3,110,000	388,400	3,498,400	39,605	634	40,239
2040/2041	-	-	-	39,605	634	40,239	-	-	-	3,235,000	264,000	3,499,000	39,605	634	40,239
2041/2042	-	-	-	39,605	634	40,239	-	-	-	3,365,000	134,600	3,499,600	39,605	634	40,239
	10,000,000	4,558,264	14,558,264	1,158,421	788,716	1,947,137	4,500,000	6,768	4,506,768	67,775,352	47,288,802	115,064,153	16,093,773	7,279,225	23,372,998

Notes:

1. The CIP Installment Loan is through Citizen's Bank and was obtained to fund capital projects.
2. The Building Loan is through Bank of Marin and was obtained to purchase the new headquarters building at 2960 Kerner Blvd. in San Rafael.
3. The revolving credit line through the Bank of Marin is a short term borrowing intended to fund capital projects during the Summer Season until the December Tax Roll payments for the Sewer Service Charge and Property Tax are received.
4. The proceeds for the bonds are scheduled to be received in July, 2012. The debt service for these bonds is estimated based on a schedule provided by the District's board approved consultant.

## **5.0 Appendix – 10-Year Capital Improvement Plan**



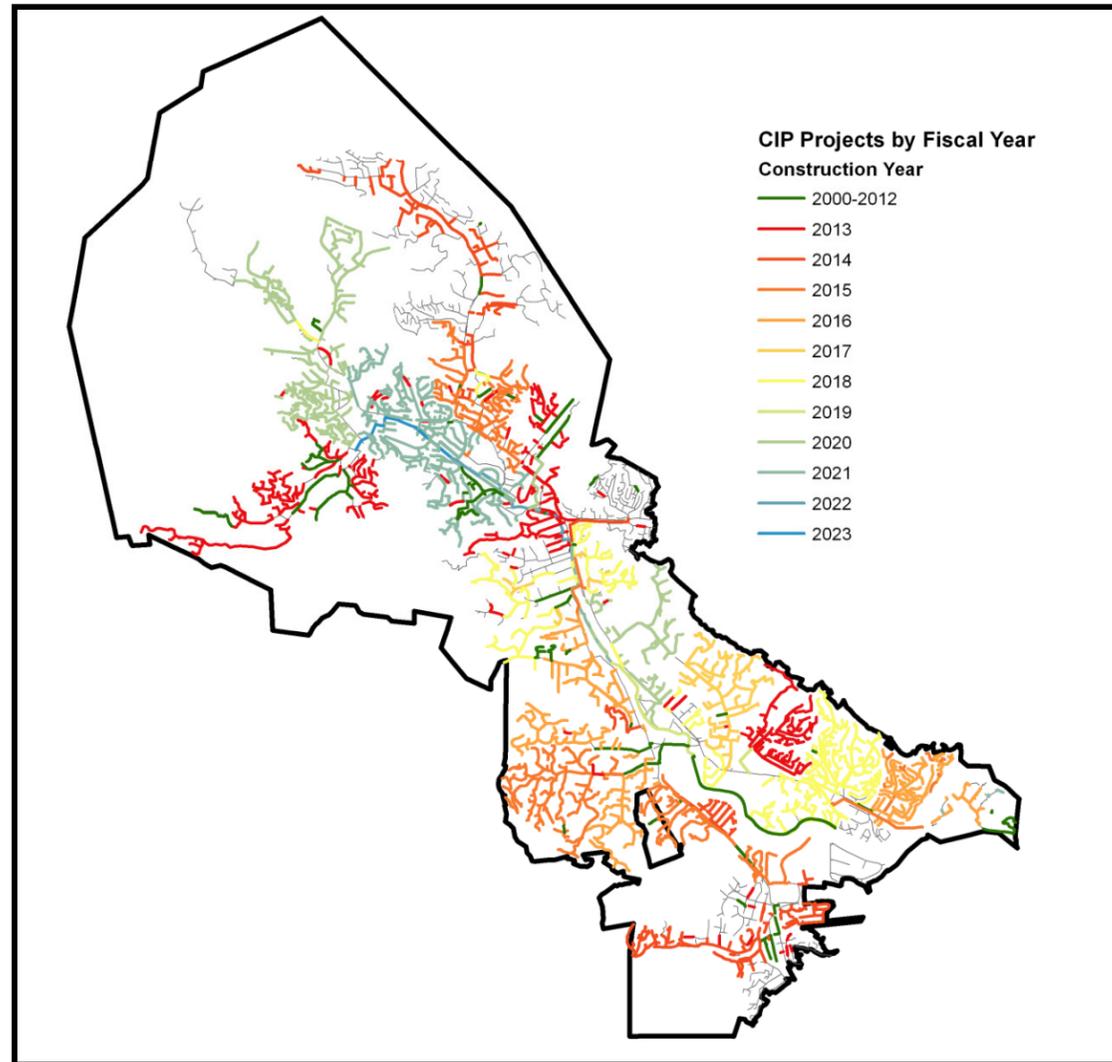
# ROSS VALLEY SANITARY DISTRICT ROLLING 10-YEAR CAPITAL IMPROVEMENT PLAN (CIP) for FISCAL YEARS 2013-2022

Updated May 15, 2012

## Abbreviations

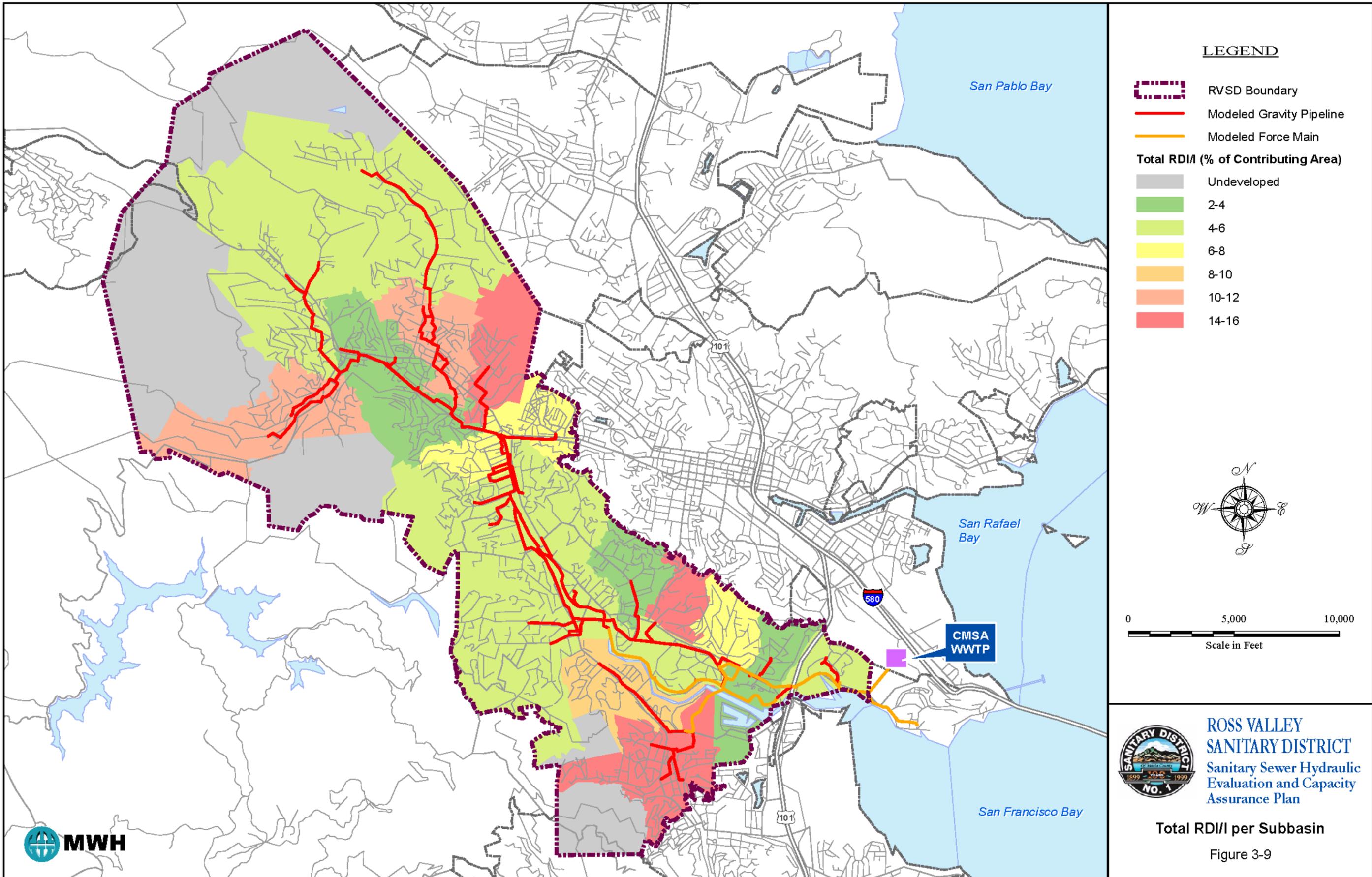
OC	Open Cut (AKA: Direct Burial)
PB	Pipebursting
CIPP	Cured-In-Place Pipe
SL	Sliplining
MT	Microtunnel
ENG	Engineering phase (includes Planning, Environmental Review, and Design)
FY	Fiscal Year
CIP	Capital Improvement Project
PS	Pump Station
FM	Force Main
TL	Trunkline
GS	Gravity Sewer Mainline
LAT	Private Lateral
MH	Manhole
RH	Rodhole
LH	Lamphole
(E)	Existing
(N)	New/Proposed
C900	PVC C900 DR 18 (from 4-inch to 12-inch diameter)
C905	PVC C905 DR 18 (from 15-inch through 42-inch diameter)
HDPE	High Density Polyethylene, DR 17 or DR 21 (from 4-inch through 42-inch diameter)
WS L/C	Welded Steel Lined-and-Coated with Cement
RCCP	Reinforced Concrete Cylindrical Pipe
RCP	Reinforced Concrete Pipe
VCP	Vitrified Clay Pipe
BDR	Board Directed Repairs
MSER	Magnolia Avenue Trunkline Emergency Repair
SCADA	Supervisory Control and Data Acquisition
CCTV	Closed Circuit TeleVision
SSRMP	Sewer System Replacement Master Plan
B	Flow Monitor Basin
ft	Feet
mi	Miles
FX	Fairfax
RO	Ross
SA	San Anselmo
KF	Kentfield
KW	Kent-Woodlands
MP	Murray Park
LK	Larkspur
GB	Greenbrae (both Unincorporated County and City of Larkspur regions)
SQ	San Quentin State Prison
SR	San Rafael
CM	Corte Madera

## Key Map



## Capital Improvement Plan Summary

FY	Actual Pipe Length, ft	Laterals, ft	In Lieu Length, ft	Total Pipe Length, ft* (Actual + Laterals + In Lieu)*	Total* Pipe Length, mi	Total Cost
2013	114,860	30,120	4,875	149,855	28.4	\$ 19,353,851
2014	95,567	35,210	-	130,777	24.8	\$ 21,900,355
2015	132,511	28,070	-	160,581	30.4	\$ 22,546,546
2016	113,930	22,770	-	136,700	25.9	\$ 16,658,243
2017	69,868	35,550	-	105,418	20.0	\$ 15,204,539
2018	116,029	26,120	-	142,149	26.9	\$ 14,363,654
2019	11,969	13,120	-	25,089	4.8	\$ 13,544,300
2020	100,225	20,810	-	121,035	22.9	\$ 16,961,122
2021	93,260	18,720	-	111,980	21.2	\$ 22,366,013
2022	11,860	12,820	-	24,680	4.7	\$ 20,253,500
<b>TOTAL</b>	<b>860,079</b>	<b>243,310</b>	<b>4,875</b>	<b>1,108,264</b>	<b>209.9</b>	<b>\$183,152,124</b>



RVSD Rolling 10 Year Capital Improvement Plan (CIP) Fiscal Years 2013-2022

Updated: 5/15/2012

Number	Area	Project Description	Type	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Fiscal Year</b>		<b>2013</b>											
1	RVSD	SCADA System for PS 10/11/12/13/14/15	PS	PS				2,875				Installation at PS 11, 12, 13, 14, 15	\$ 790,500
2	LK	Hwy 101/Riviera FM 21/33 Replacement & PS 20/30-36 Pump/Flow Meter/Equipment Improvs 18%	PS/FM	ENG								Design engineering for combined CIPs 8a, 10, 22 & 24	\$ 400,000
3	RVSD	FM Cathodic Improvements & Inspections for FM 1/2/10/13/14/37	FM	Cathodic				2,000				Cathodic protection 6 FMs.	\$ 550,000
4	SA	Miracle Mile Capacity Improvements 14%	GS	ENG								Design Engineering. Upsize pipe. Reevaluate after rehab.	\$ 231,000
5	KF	Hillside Ave Rehabilitation 7%	GS	ENG								Design Engineering. Replace Pipe.	\$ 83,600
6	GB	PS 12 Bon Air/PS 13 Greenbrae Mech & Elec Improvs & Greenbrae Force Main Replacement 20%	PS/FM	ENG								Design Study and Engineering for combined CIPs 13 & 17	\$ 1,000,000
7	SA	Upper Butterfield Capacity Improvements 12%	GS	ENG								Design Engineering. Upsize pipe.	\$ 209,000
8	LK	Magnolia Avenue Trunkline Improvements 2%	TL	ENG					10-27			Preliminary engineering study	\$ 75,000
9	LK	PS 30 Heather Gardens Pump Station Replacement	PS	PS								CIP 23 only. CIP 22/24 combined with 8a.	\$ 121,000
10	RVSD	PS 15/22/23/24/25/37 Pump/Flow Meter/Reliability and Safety Improvements	PS	PS									\$ 622,600
11	LK	Heather Gardens Pipeline Replacement 20%	GS	ENG								Design Engineering. Upsize and regrade pipe, PS.	\$ 216,000
12	RVSD	District Capital Pipebursting Crew	GS	PB	1.0	5,280	3,770		8	HDPE	15	Replacement of maintenance problem lines	\$ 850,000
13	RVSD	Lateral Replacement Grant Program	LAT	LRGP			9,050					Grants for homeowner replacement of private sewer laterals	\$ 500,000
14	FX	BDR Jan/Feb Project 1	GS	OC	0.7	3,495	2,970		8	C900	27	Structural priority pipe replacement	\$ 849,715
15	KF/KW	BDR Jan/Feb Project 2	GS	OC	0.7	3,805	2,490		8	C900	22	Structural priority pipe replacement	\$ 919,919
16	SA	BDR Jan/Feb Project 3	GS	OC	0.4	1,900	1,770		8	C900	12	Structural priority pipe replacement	\$ 514,304
17	FX/RO	BDR Mar/Apr Project 1	GS	OC	0.4	2,260	1,610		8	C900	16	Structural priority pipe replacement	\$ 824,109
18	LK	BDR Mar/Apr Project 2	GS	OC	0.4	2,310	1,650		8	C900	16	Structural priority pipe replacement	\$ 842,342
19	SA	BDR Mar/Apr Project 3	GS	OC	0.7	3,740	2,670		8	C900	22	Structural priority pipe replacement	\$ 1,363,791
20	RVSD	Ross Valley Trunk Sewer Engineering Study	TL	ENG					18-42			Preliminary engineering design study	\$ 500,000
21	LK	Hillview Pipeline Replacement 12%	GS	ENG					8-10	C900	44	Replace due to subsidence, "College streets"	\$ 300,000
22	SA	CIPP/SA/B07D/C-ORG/Carrigan-Laurel/12,810ft 50%	GS	CIPP	1.2	6,405			6-8	CIPP	33		\$ 498,609
23	SA	CIPP/SA/B07D/C-ORG/Carrigan-Laurel/12,810ft 50%	GS	CIPP	1.2	6,405			6-8	CIPP	33		\$ 498,609
24	SA	PB/SA/B07D/C-ORG/Center/2,890ft	GS	PB	0.6	2,890	2,060		6-8	HDPE	14		\$ 723,050
25	SA	CIPP/SA/B06/C-RED/Short Ranch/8,990ft	GS	CIPP	1.7	8,990			6-12	CIPP	51		\$ 584,350
26	SA	PB/SA/B06/C-RED/Short Ranch/1,140ft	GS	PB	0.2	1,140	810		6-8	HDPE	8	Upsize existing 4-inch diameter pipes and D/S of Durham	\$ 299,569
27	FX	CIPP/FX/B02/C-RED/Bolinas-Cascade/36,800ft 20%	GS	CIPP	1.4	7,360			6	CIPP	35		\$ 478,400
28	FX	CIPP/FX/B02/C-RED/Bolinas-Cascade/36,800ft 20%	GS	CIPP	1.4	7,360			7	CIPP	35		\$ 478,400
29	FX	CIPP/FX/B02/C-RED/Bolinas-Cascade/36,800ft 20%	GS	CIPP	1.4	7,360			8	CIPP	35		\$ 478,400
30	FX	CIPP/FX/B02/C-RED/Bolinas-Cascade/36,800ft 20%	GS	CIPP	1.4	7,360			9	CIPP	35		\$ 478,400
31	FX	CIPP/FX/B02/C-RED/Bolinas-Cascade/36,800ft 20%	GS	CIPP	1.4	7,360			10	CIPP	35		\$ 478,400
32	FX	PB/FX/B02/C-RED/Bolinas-Cascade/1,780ft	GS	PB	0.3	1,780	1,270		6	HDPE	19	Upsize existing 4-inch diameter pipes	\$ 467,748
33	GB	CIPP/GB/B13/C-RED/GB Unincorporated/27,660ft 25%	GS	CIPP	1.3	6,915			6	CIPP	45		\$ 531,759
34	GB	CIPP/GB/B13/C-RED/GB Unincorporated/27,660ft 25%	GS	CIPP	1.3	6,915			6	CIPP	45		\$ 531,759
35	GB	CIPP/GB/B13/C-RED/GB Unincorporated/27,660ft 25%	GS	CIPP	1.3	6,915			6	CIPP	45		\$ 531,759
36	GB	CIPP/GB/B13/C-RED/GB Unincorporated/27,660ft 25%	GS	CIPP	1.3	6,915			6	CIPP	45		\$ 531,759
<b>TOTAL</b>					<b>21.8</b>	<b>114,860</b>	<b>30,120</b>	<b>4,875</b>	<b>=</b>	<b>149,855</b>	<b>feet</b> (Actual + Laterals + In Lieu)		<b>\$ 19,353,851</b>

RVSD Rolling 10 Year Capital Improvement Plan (CIP) Fiscal Years 2013-2022

Updated: 5/15/2012

Number	Area	Project Description	Type	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Fiscal Year</b>		<b>2014</b>											
1	CIP-4	SA/RO SFD/Winship Rehabilitation/Capacity Improvements 11%	GS	ENG								Design Engineering. Upsize pipe.	\$ 700,000
2	CIP-8a/10/22/24	LK Hwy 101/Riviera FM 21/33 Replacement & PS 20/30-36 Pump/Flow Meter/Equipment Improvs 82%	PS/FM	PS/FM	0.2	1,050			8	HDPE		CIPs 8a, 10, 22 & 23	\$ 1,823,500
3	CIP-11a	SA Miracle Mile Capacity Improvements 86%	GS	PB/MT	0.6	3,250			15	HDPE		Reevaluate after rehab.	\$ 1,690,700
4	CIP-11b	SA Red Hill Rehabilitation 7%	GS	ENG								Design Engineering. Replace Pipe.	\$ 39,600
5	CIP-12	KF Hillside Ave Rehabilitation 93%	GS	OC	0.7	3,489	2,490		8	C900			\$ 1,163,800
6	CIP-13*/17	GB PS 12 Bon Air/PS 13 Greenbrae Mech & Elec Improvs & Greenbrae Force Main Replacement 40%	FM	SL	0.6	2,900			30	HDPE		2,900 ft of 30-inch FM	\$ 2,000,000
7	CIP-14	SA Upper Butterfield Capacity Improvements 88%	GS	PB	0.7	3,836	2,740		15	HDPE	18		\$ 1,535,600
8	CIP-16b	LK Magnolia Avenue Trunkline Improvements 9%	TL	ENG					10-27			Engineering design	\$ 300,000
9	CIP-20	SA Lower Butterfield/Meadowcroft/Broadmoor/SFD Capacity Improvements 12%	GS	ENG								Design Engineering. Upsize pipe.	\$ 262,000
10	HG	LK Heather Gardens Pipeline Replacement 80%	GS	OC	0.7	3,800	2,710		10	C900	26	Upsize and regrade to PS.	\$ 864,000
11	PB	RVSD District Capital Pipebursting Crew	GS	PB	1.0	5,280	3,770		8	HDPE	15	Replacement of maintenance problem lines	\$ 850,000
12	LRGP	RVSD Lateral Replacement Grant Program	LAT	LRGP			9,050					Grants for homeowner replacement of private sewer laterals	\$ 500,000
13	FY14-1	LK Hillview Pipeline Replacement 88%	GS	OC	1.5	7,630	5,450		8-10	C900	44	"College streets"	\$ 2,479,750
14	FY14-2	GB La Cuesta/Corte Morada Pipeline Improvements	GS	OC	0.4	2,100	1,500		8-12	C900		Includes engineering	\$ 500,000
15	FY14-3	RVSD BDR Structural Priority Pipe and Manhole Replacement Project 1	GS	OC	0.7	3,500	2,500		8	C900	20		\$ 1,276,275
16	FY14-4	RVSD BDR Structural Priority Pipe and Manhole Replacement Project 2	GS	OC	0.7	3,500	2,500		8	C900	20		\$ 1,276,275
17	FY14-5	RVSD BDR Structural Priority Pipe and Manhole Replacement Project 3	GS	OC	0.7	3,500	2,500		8	C900	20		\$ 1,276,275
18	FY14-6	LK CIPP/LK/B16/C-RED/Larkspur Creek/25,230ft 25%	GS	CIPP	1.2	6,308			6-8	CIPP	40		\$ 410,020
19	FY14-7	LK CIPP/LK/B16/C-RED/Larkspur Creek/25,230ft 25%	GS	CIPP	1.2	6,308			6-8	CIPP	40		\$ 410,020
20	FY14-8	LK CIPP/LK/B16/C-RED/Larkspur Creek/25,230ft 25%	GS	CIPP	1.2	6,308			6-8	CIPP	40		\$ 410,020
21	FY14-9	LK CIPP/LK/B16/C-RED/Larkspur Creek/25,230ft 25%	GS	CIPP	1.2	6,308			6-8	CIPP	40		\$ 410,020
22	FY14-10	SH CIPP/SH/B03/C-GRN/Upper SH Creek/13,610ft 50%	GS	CIPP	1.3	6,805			4-10	CIPP	32		\$ 442,325
23	FY14-11	SH CIPP/SH/B03/C-GRN/Upper SH Creek/13,610ft 50%	GS	CIPP	1.3	6,805			4-10	CIPP	32		\$ 442,325
24	FY14-12	SH CIPP/SH/B03-4/C-RED/Lower SH Creek/12,890ft 50%	GS	CIPP	1.2	6,445				CIPP	35		\$ 418,925
25	FY14-13	SH CIPP/SH/B03-4/C-RED/Lower SH Creek/12,890ft 50%	GS	CIPP	1.2	6,445				CIPP	35		\$ 418,925
<b>TOTAL</b>					<b>18.1</b>	<b>95,567</b>	<b>35,210</b>		<b>=</b>	<b>130,777</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 21,900,355</b>

RVSD Rolling 10 Year Capital Improvement Plan (CIP) Fiscal Years 2013-2022

Updated: 5/15/2012

Number	Area	Project Description	Type	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Fiscal Year</b>		<b>2015</b>											
1	CIP-4	SA/RO SFD/Winship Rehabilitation/Capacity Improvements 15%	GS	PB/MT	0.6	3,100	60		8-12	C900		Phase I	\$ 975,000
2	CIP-6	SA/RO Sequoia Park/Tozzi Creek Rehabilitation 1%	GS	ENG								Preliminary Engineering. Replace pipe.	\$ 48,400
3	CIP-11b	SA Red Hill Rehabilitation 93%	GS	OC	0.3	1,677	1,200		15	C905			\$ 559,900
4	CIP-13*/17	GB PS 12 Bon Air/PS 13 Greenbrae Mech & Elec Improvs & Greenbrae Force Main Replacement 40%	PS	PS								PS 12/13	\$ 2,000,000
5	CIP-16b	LK Magnolia Avenue Trunkline Improvements 89%	TL	OC	0.8	4,375			10-27	C905			\$ 3,000,000
6	CIP-20	SA Lower Butterfield/Meadowcroft/Broadmoor/SFD Capacity Improvements 88%	GS	PB/MT/OC	0.7	3,493			15	C905			\$ 1,922,000
7	PB	RVSD District Capital Pipebursting Crew	GS	PB	1.0	5,280	3,770		8	HDPE	15	Replacement of maintenance problem lines	\$ 850,000
8	LRGP	RVSD Lateral Replacement Grant Program	LAT	LRGP			9,050					Grants for homeowner replacement of private sewer laterals	\$ 500,000
9	FY15-1	RVSD BDR Structural Priority Pipe and Manhole Replacement Project 1	GS	OC	0.7	3,500	2,500		8	C900	20		\$ 1,276,275
10	FY15-2	RVSD BDR Structural Priority Pipe and Manhole Replacement Project 2	GS	OC	0.7	3,500	2,500		8	C900	20		\$ 1,276,275
11	FY15-3	RVSD BDR Structural Priority Pipe and Manhole Replacement Project 3	GS	OC	0.7	3,500	2,500		8	C900	20		\$ 1,276,275
12	FY15-4	LK CIPP/LK/B17/C-ORG/Northern Larkspur/25,040ft 33%	GS	CIPP	1.6	8,347				CIPP	50		\$ 542,555
13	FY15-5	LK CIPP/LK/B17/C-ORG/Northern Larkspur/25,040ft 33%	GS	CIPP	1.6	8,347				CIPP	50		\$ 542,555
14	FY15-6	LK CIPP/LK/B17/C-ORG/Northern Larkspur/25,040ft 33%	GS	CIPP	1.6	8,347				CIPP	50		\$ 542,555
15	FY15-7	SA PB/SA/B04/C-RED/Lower Butterfield/3,890ft	GS	PB	0.7	3,890	2,780			HDPE	24		\$ 1,022,214
16	FY15-8	SA CIPP/SA/B04/C-RED/Lower Butterfield/31,480ft 25%	GS	CIPP	1.5	7,870			6-8	CIPP	45		\$ 511,550
17	FY15-9	SA CIPP/SA/B04/C-RED/Lower Butterfield/31,480ft 25%	GS	CIPP	1.5	7,870			6-8	CIPP	45		\$ 511,550
18	FY15-10	SA CIPP/SA/B04/C-RED/Lower Butterfield/31,480ft 25%	GS	CIPP	1.5	7,870			6-8	CIPP	45		\$ 511,550
19	FY15-11	SA CIPP/SA/B04/C-RED/Lower Butterfield/31,480ft 25%	GS	CIPP	1.5	7,870			6-8	CIPP	45		\$ 511,550
20	FY15-12	GB PB/GB/B18/C-ORG/GB Larkspur/2,865ft	GS	PB	0.5	2,865	2,050		6	HDPE	26	Upsize 4-inch and Eliseo 6-inch pipes. Includes CIP-21d.	\$ 752,865
21	FY15-13	KW CIPP/KW/B11A/C-ORG/Woodland/38,480ft 25%	GS	CIPP	1.8	9,620			6-8	CIPP	52		\$ 625,300
22	FY15-14	KW CIPP/KW/B11A/C-ORG/Woodland/38,480ft 25%	GS	CIPP	1.8	9,620			6-8	CIPP	52		\$ 625,300
23	FY15-15	KW CIPP/KW/B11A/C-ORG/Woodland/38,480ft 25%	GS	CIPP	1.8	9,620			6-8	CIPP	52		\$ 625,300
24	FY15-16	KW CIPP/KW/B11A/C-ORG/Woodland/38,480ft 25%	GS	CIPP	1.8	9,620			6-8	CIPP	52		\$ 625,300
25	FY15-17	KW PB/KW/B11A/C-ORG/Woodland/2,330f	GS	PB	0.4	2,330	1,660		6	HDPE	16	Upsize existing 4-inch diameter pipes	\$ 612,277
26	FY15-18	RVSD SHECAP Update - Basins 2, 3, 4, 6, 7D, 11A, 13, 16, 17	ENG	ENG								Flow monitoring, hydraulic model update, project evaluation	\$ 300,000
	<b>TOTAL</b>				<b>25.1</b>	<b>132,511</b>	<b>28,070</b>		<b>=</b>	<b>160,581</b>	<b>feet</b>	<b>(Actual + Laterals + In Lieu)</b>	<b>\$ 22,546,546</b>

RVSD Rolling 10 Year Capital Improvement Plan (CIP) Fiscal Years 2013-2022

Updated: 5/15/2012

Number	Area	Project Description	Type	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Fiscal Year</b>		<b>2016</b>											
1	CIP-4	SA/RO SFD/Winship Rehabilitation/Capacity Improvements 53%	GS	PB/MT	2.2	11,450	240		8-12	C900		Phase I	\$ 3,512,300
2	CIP-6	SA/RO Sequoia Park/Tozzi Creek Rehabilitation 11%	GS	ENG								Design Engineering. Replace Pipe.	\$ 793,100
3	CIP-16a	KF Laurel Grove/McAllister Capacity Improvements 12%	GS	ENG								Design Engineering. Upsize pipe. Reevaluate after rehab.	\$ 125,400
4	PB	RVSD District Capital Pipebursting Crew	GS	PB	1.0	5,280	3,770		8	HDPE	15	Replacement of maintenance problem lines	\$ 850,000
5	LRGP	RVSD Lateral Replacement Grant Program	LAT	LRGP			9,050					Grants for homeowner replacement of private sewer laterals	\$ 500,000
6	FY16-1	RVSD Ross Valley Trunk Sewer Design 40%	TL	ENG					18-42			Engineering design	\$ 800,000
7	FY16-2	RVSD BDR Structural Priority Pipe and Manhole Replacement Project 1	GS	OC	0.7	3,500	2,500		8	C900	20		\$ 1,276,275
8	FY16-3	RVSD BDR Structural Priority Pipe and Manhole Replacement Project 2	GS	OC	0.7	3,500	2,500		8	C900	20		\$ 1,276,275
9	FY16-4	RVSD BDR Structural Priority Pipe and Manhole Replacement Project 3	GS	OC	0.7	3,500	2,500		8	C900	20		\$ 1,276,275
10	FY16-5	RO PB/RO/B10/C-ORG/Bridge/3,100ft	GS	PB	0.6	3,100	2,210		6	HDPE	15	Upsize existing 4-inch diameter pipes	\$ 814,618
11	FY16-6	GB CIPP/GB/B18/C-ORG/GB Larkspur/27,100ft 33%	GS	CIPP	1.7	9,033			6-12	CIPP	45		\$ 587,145
12	FY16-7	GB CIPP/GB/B18/C-ORG/GB Larkspur/27,100ft 33%	GS	CIPP	1.7	9,033			6-12	CIPP	45		\$ 587,145
13	FY16-8	GB CIPP/GB/B18/C-ORG/GB Larkspur/27,100ft 33%	GS	CIPP	1.7	9,033			6-8	CIPP	45		\$ 587,145
14	FY16-9	LK CIPP/LK/B19/C-ORG/Landing/4,660ft	GS	CIPP	0.9	4,660			6-10	CIPP	27		\$ 302,900
15	FY16-10	KW CIPP/KW/B11B/C-ORG/Evergreen/14,020ft 50%	GS	CIPP	1.3	7,010			6	CIPP	35		\$ 455,650
16	FY16-11	KW CIPP/KW/B11B/C-ORG/Evergreen/14,020ft 50%	GS	CIPP	1.3	7,010			6	CIPP	36		\$ 455,650
17	FY16-12	KW CIPP/KW/B10/C-ORG/Goodhill/18,710 ft 33%	GS	CIPP	1.2	6,237			6	CIPP	28		\$ 405,405
18	FY16-13	KW CIPP/KW/B10/C-ORG/Goodhill/18,710 ft 33%	GS	CIPP	1.2	6,237			6	CIPP	28		\$ 405,405
19	FY16-14	KW CIPP/KW/B10/C-ORG/Goodhill/18,710 ft 33%	GS	CIPP	1.2	6,237			6	CIPP	28		\$ 405,405
20	FY16-15	RO CIPP/RO/B10/C-ORG/Lagunitas/19,110 ft 33%	GS	CIPP	1.2	6,370			6-8	CIPP	30		\$ 414,050
21	FY16-16	RO CIPP/RO/B10/C-ORG/Lagunitas/19,110 ft 33%	GS	CIPP	1.2	6,370			6-8	CIPP	30		\$ 414,050
22	FY16-17	RO CIPP/RO/B10/C-ORG/Lagunitas/19,110 ft 33%	GS	CIPP	1.2	6,370			6-8	CIPP	30		\$ 414,050
23													
24													
	<b>TOTAL</b>				<b>21.6</b>	<b>113,930</b>	<b>22,770</b>		<b>=</b>	<b>136,700</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 16,658,243</b>

Number	Area	Project Description	Type	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Fiscal Year</b>		<b>2017</b>											
1	CIP-4	SA/RO SFD/Winship Rehabilitation/Capacity Improvements 22%	GS	PB/MT	0.9	4,850	120		8-12	C900		Phase II	\$ 1,464,100
2	CIP-6	SA/RO Sequoia Park/Tozzi Creek Rehabilitation 44%	GS	OC	2.1	11,000	7,860		8	C900			\$ 3,085,500
3	CIP-15b	FX Westbrae/Hawthorne Capacity Improvements 12%	GS	ENG								Design Engineering. Upsize pipe. Reevaluate after rehab.	\$ 56,100
4	CIP-16a	KF Laurel Grove/McAllister Capacity Improvements 88%	GS	PB	0.4	2,256	1,610		15	C905		Reevaluate after rehab.	\$ 920,700
5	PB	RVSD District Capital Pipebursting Crew	GS	PB	1.0	5,280	3,770		8	HDPE	15	Replacement of maintenance problem lines	\$ 850,000
6	LRGP	RVSD Lateral Replacement Grant Program	LAT	LRGP			9,050					Grants for homeowner replacement of private sewer laterals	\$ 500,000
7	FY17-1	RVSD Ross Valley Trunk Sewer Design 30%	TL	ENG					18-42			Engineering design	\$ 600,000
8	FY17-2	RVSD BDR Structural Priority Pipe and Manhole Replacement Project 1	GS	OC	0.7	3,500	2,500		8	C900	20		\$ 1,276,275
9	FY17-3	RVSD BDR Structural Priority Pipe and Manhole Replacement Project 2	GS	OC	0.7	3,500	2,500		8	C900	20		\$ 1,276,275
10	FY17-4	RVSD BDR Structural Priority Pipe and Manhole Replacement Project 3	GS	OC	0.7	3,500	2,500		8	C900	20		\$ 1,276,275
11	FY17-5	KF CIPP/KF/B12/C-ORG/Laurel Grove/28,090ft 25%	GS	CIPP	1.3	7,023			6-12	CIPP	34		\$ 456,495
12	FY17-6	KF CIPP/KF/B12/C-ORG/Laurel Grove/28,090ft 25%	GS	CIPP	1.3	7,023			6-12	CIPP	34		\$ 456,495
13	FY17-7	KF CIPP/KF/B12/C-ORG/Laurel Grove/28,090ft 25%	GS	CIPP	1.3	7,023			6-12	CIPP	34		\$ 456,495
14	FY17-8	KF CIPP/KF/B12/C-ORG/Laurel Grove/28,090ft 25%	GS	CIPP	1.3	7,023			6-12	CIPP	34		\$ 456,495
15	FY17-9	KF PB/KF/B12/C-ORG/Laurel Grove/3,070ft	GS	PB	0.6	3,070	2,190		6	HDPE	21	Upsize existing 4-inch diameter pipes	\$ 806,735
16	FY17-10	RO PB/RO/B08/C-ORG/Hillgirt/1,380ft	GS	PB	0.3	1,380	990		8-10	HDPE	7		\$ 362,636
17	FY17-11	SA PB/SA/B08/C-ORG/Austin Barber Wellington/3,440ft	GS	PB	0.7	3,440	2,460		8-10	HDPE	22		\$ 903,963
18													
19													
20													
21													
22													
23													
24													
	<b>TOTAL</b>				<b>13.2</b>	<b>69,868</b>	<b>35,550</b>		<b>=</b>	<b>105,418</b>		<b>feet (Actual + Laterals + In Lieu)</b>	<b>\$ 15,204,539</b>

RVSD Rolling 10 Year Capital Improvement Plan (CIP) Fiscal Years 2013-2022

Updated: 5/15/2012

Number	Area	Project Description	Type	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Fiscal Year</b>		<b>2018</b>											
1	CIP-6	SA/RO Sequoia Park/Tozzi Creek Rehabilitation 44%	GS	OC	2.1	11,000	7,860		8	C900			\$ 3,085,500
2	CIP-15b	FX Westbrae/Hawthorne Capacity Improvements 88%	GS	PB	0.2	1,278	910		8	C900	8	Reevaluate after rehab.	\$ 411,400
3	CIP-21a	KF SFD/Berry Capacity Improvements	GS	PB	0.2	1,100	790		15	HDPE		Reevaluate after rehab.	\$ 519,200
4	CIP-21b	SA The Alameda/Brookmead Capacity Improvements	GS	OC/PB	0.3	1,670			15	C905		Reevaluate after rehab.	\$ 842,600
5	PB	RVSD District Capital Pipebursting Crew	GS	PB	1.0	5,280	3,770		8	HDPE	15	Replacement of maintenance problem lines	\$ 850,000
6	LRGP	RVSD Lateral Replacement Grant Program	LAT	LRGP			9,050					Grants for homeowner replacement of private sewer laterals	\$ 500,000
7	FY18-1	RVSD Ross Valley Trunk Sewer Design 30%	TL	ENG					18-42			Engineering design	\$ 600,000
8	FY18-2	GB PB/GB/B15/C-ORG/LK Greenbrae/4,200ft	GS	PB	0.8	4,200	3,000		6	HDPE	31	Upsize existing 4-inch diameter pipes	\$ 1,103,676
9	FY18-3	GB CIPP/GB/B15/C-ORG/LK Greenbrae/34,740ft 25%	GS	CIPP	1.6	8,685			6-8	CIPP	52		\$ 564,525
10	FY18-4	GB CIPP/GB/B15/C-ORG/LK Greenbrae/34,740ft 25%	GS	CIPP	1.6	8,685			6-8	CIPP	52		\$ 564,525
11	FY18-5	GB CIPP/GB/B15/C-ORG/LK Greenbrae/34,740ft 25%	GS	CIPP	1.6	8,685			6-8	CIPP	52		\$ 564,525
12	FY18-6	GB CIPP/GB/B15/C-ORG/LK Greenbrae/34,740ft 25%	GS	CIPP	1.6	8,685			6-8	CIPP	52		\$ 564,525
13	FY18-7	RO CIPP/RO/B08/C-ORG/Ross/8,770ft	GS	CIPP	1.7	8,770			6-8	CIPP	40		\$ 570,050
14	FY18-8	SA CIPP/SA/B08/C-ORG/San Anselmo/21,660ft 33%	GS	CIPP	1.4	7,220			6-8	CIPP	35		\$ 469,300
15	FY18-9	SA CIPP/SA/B08/C-ORG/San Anselmo/21,660ft 33%	GS	CIPP	1.4	7,220			6-8	CIPP	35		\$ 469,300
16	FY18-10	SA CIPP/SA/B08/C-ORG/San Anselmo/21,660ft 33%	GS	CIPP	1.4	7,220			6-8	CIPP	35		\$ 469,300
17	FY18-11	GB/KF PB/GB-KF/B14/C-ORG/Elm Via Casitas/1,030ft	GS	PB	0.2	1,030	740		6	HDPE	31	Upsize existing 4-inch diameter pipes	\$ 270,663
18	FY18-12	KF CIPP/KF/B14/C-ORG/Kentfield/5,840ft	GS	CIPP	1.1	5,840			6	CIPP	27		\$ 379,600
19	FY18-13	GB CIPP/GB/B14/C-ORG/Greenbrae/19,460ft 33%	GS	CIPP	1.2	6,487			6-8	CIPP	39		\$ 421,655
20	FY18-14	GB CIPP/GB/B14/C-ORG/Greenbrae/19,460ft 33%	GS	CIPP	1.2	6,487			6-8	CIPP	39		\$ 421,655
21	FY18-15	GB CIPP/GB/B14/C-ORG/Greenbrae/19,460ft 33%	GS	CIPP	1.2	6,487			6-8	CIPP	39		\$ 421,655
22	FY18-16	RVSD SHECAP Update - Basins 1, 5, 7, 8, 9, 10, 11B, 12, 14, 15, 18, 19, 20	ENG	ENG								Flow monitoring, hydraulic model update, project evaluation	\$ 300,000
23													
24													
	<b>TOTAL</b>				<b>22.0</b>	<b>116,029</b>	<b>26,120</b>		<b>=</b>	<b>142,149</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 14,363,654</b>

Number	Area	Project Description	Type	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Fiscal Year</b>		<b>2019</b>											
1	CIP-18	FX	Spruce/Park/Merwin/Broadway Capacity Improvements	GS	PB/OC/MT	0.5	2,405	180		15	C905		\$ 1,929,400
2	CIP-21c	GB	Manor Easement Capacity Improvements	GS	PB	0.2	864	120		15	C905		\$ 372,900
3	PB	RVSD	District Capital Pipebursting Crew	GS	PB	1.0	5,280	3,770		8	HDPE	15	Replacement of maintenance problem lines
4	LRGP	RVSD	Lateral Replacement Grant Program	LAT	LRGP			9,050					Grants for homeowner replacement of private sewer laterals
5	FY19-1	KF	Ross Valley Trunk Sewer - Corte Madera Creek 60%	TL	OC	0.7	3,420			42	HDPE	9	\$ 6,840,000
6	FY19-2	KF	Ross Valley Trunk Sewer Engineering Services During Construction	TL	ENG								\$ 2,052,000
7	FY19-3	RVSD	Large Diameter Sewer Structural Condition Assessment	ENG	ENG								\$ 750,000
8	FY19-4	RVSD	SSRMP Update	ENG	ENG							update	\$ 250,000
9													
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11													
12													
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14													
15													
16													
17													
18													
19													
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21													
22													
23													
24													
	<b>TOTAL</b>					<b>2.3</b>	<b>11,969</b>	<b>13,120</b>		<b>=</b>	<b>25,089</b>	<b>feet (Actual + Laterals + In Lieu)</b>	<b>\$ 13,544,300</b>

RVSD Rolling 10 Year Capital Improvement Plan (CIP) Fiscal Years 2013-2022

Updated: 5/15/2012

Number	Area	Project Description	Type	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Fiscal Year</b>		<b>2020</b>											
1	CIP-19	SA	Sonoma/Nokomis Capacity Improvements	GS	OC/MT	0.5	2,765	1,050	15	C905		Design Engineering and Construction. Reevaluate after rehab.	\$ 1,967,900
2	PB	RVSD	District Capital Pipebursting Crew	GS	PB	1.0	5,280	3,770	8	HDPE	15	Replacement of maintenance problem lines	\$ 850,000
3	LRGP	RVSD	Lateral Replacement Grant Program	LAT	LRGP			9,050				Grants for homeowner replacement of private sewer laterals	\$ 500,000
4	FY20-1	KF/RO	Ross Valley Trunk Sewer - Corte Madera Creek 40%	TL	OC	0.4	2,260		42	HDPE	9		\$ 4,520,000
5	FY20-2	KF/RO	Ross Valley Trunk Sewer Engineering Services During Construction	TL	ENG								\$ 1,356,000
6	FY20-3	FX	CIPP/FX/B01/C-GRN/Upper Fairfax/65,790ft 11%	GS	CIPP	1.4	7,310		6-12	CIPP	31		\$ 475,150
7	FY20-4	FX	CIPP/FX/B01/C-GRN/Upper Fairfax/65,790ft 11%	GS	CIPP	1.4	7,310		6-12	CIPP	31		\$ 475,150
8	FY20-5	FX	CIPP/FX/B01/C-GRN/Upper Fairfax/65,790ft 11%	GS	CIPP	1.4	7,310		6-12	CIPP	31		\$ 475,150
9	FY20-6	FX	CIPP/FX/B01/C-GRN/Upper Fairfax/65,790ft 11%	GS	CIPP	1.4	7,310		6-12	CIPP	31		\$ 475,150
10	FY20-7	FX	CIPP/FX/B01/C-GRN/Upper Fairfax/65,790ft 11%	GS	CIPP	1.4	7,310		6-12	CIPP	31		\$ 475,150
11	FY20-8	FX	CIPP/FX/B01/C-GRN/Upper Fairfax/65,790ft 11%	GS	CIPP	1.4	7,310		6-12	CIPP	31		\$ 475,150
12	FY20-9	FX	CIPP/FX/B01/C-GRN/Upper Fairfax/65,790ft 11%	GS	CIPP	1.4	7,310		6-12	CIPP	31		\$ 475,150
13	FY20-10	FX	CIPP/FX/B01/C-GRN/Upper Fairfax/65,790ft 11%	GS	CIPP	1.4	7,310		6-12	CIPP	31		\$ 475,150
14	FY20-11	FX	CIPP/FX/B01/C-GRN/Upper Fairfax/65,790ft 11%	GS	PB	1.4	7,310	5,220	6-8	HDPE	31	Pipeburst allowance due to size or condition	\$ 1,920,922
15	FY20-12	KF/RO	CIPP/RO/B09/C-GRN/Ross/24,130ft 30%	GS	CIPP	1.4	7,240		6-12	CIPP	35		\$ 470,600
16	FY20-13	KF/RO	CIPP/RO/B09/C-GRN/Ross/24,130ft 30%	GS	CIPP	1.4	7,240		6-12	CIPP	35		\$ 470,600
17	FY20-14	KF/RO	CIPP/RO/B09/C-GRN/Ross/24,130ft 30%	GS	CIPP	1.4	7,240		6-12	CIPP	35		\$ 470,600
18	FY20-15	KF/RO	CIPP/RO/B09/C-GRN/Ross/24,130ft 10%	GS	PB	0.5	2,410	1,720	6-8	HDPE	12	Pipeburst allowance due to size or condition	\$ 633,300
19													
20													
21													
22													
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24													
<b>TOTAL</b>						<b>19.0</b>	<b>100,225</b>	<b>20,810</b>	<b>=</b>	<b>121,035</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 16,961,122</b>

Number	Area	Project Description	Type	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Fiscal Year</b>		<b>2021</b>											
1	PB	RVSD District Capital Pipebursting Crew	GS	PB	1.0	5,280	3,770		8	HDPE	15	Replacement of maintenance problem lines	\$ 850,000
2	LRGP	RVSD Lateral Replacement Grant Program	LAT	LRGP			9,050					Grants for homeowner replacement of private sewer laterals	\$ 500,000
3	FY21-1	RO/SA Ross Valley Trunk Sewer - San Anselmo/Sylvan	TL	OC	1.0	5,390			36-42	HDPE	22		\$ 10,780,000
4	FY21-2	RO/SA Ross Valley Trunk Sewer Engineering Services During Construction	TL	ENG									\$ 3,234,000
5	FY21-3	FX CIPP/FX/B05/C-GRN/Lower Fairfax/38,260ft 30%	GS	CIPP	2.2	11,480			6-12	CIPP	60		\$ 746,200
6	FY21-4	FX CIPP/FX/B05/C-GRN/Lower Fairfax/38,260ft 20%	GS	CIPP	1.5	7,650			6-12	CIPP	40		\$ 497,250
7	FY21-5	FX CIPP/FX/B05/C-GRN/Lower Fairfax/38,260ft 20%	GS	CIPP	1.5	7,650			6-12	CIPP	40		\$ 497,250
8	FY21-6	FX CIPP/FX/B05/C-GRN/Lower Fairfax/38,260ft 20%	GS	CIPP	1.5	7,650			6-12	CIPP	40		\$ 497,250
9	FY21-7	FX CIPP/FX/B05/C-GRN/Lower Fairfax/38,260ft 10%	GS	PB	0.7	3,830	2,740		6-8	HDPE	20	Pipeburst allowance due to size or condition	\$ 1,006,447
10	FY21-8	SA CIPP/SA/B05/C-GRN/San Anselmo/44,340ft 15%	GS	CIPP	1.3	6,650			6-12	CIPP	39		\$ 432,250
11	FY21-9	SA CIPP/SA/B05/C-GRN/San Anselmo/44,340ft 15%	GS	CIPP	1.3	6,650			6-12	CIPP	39		\$ 432,250
12	FY21-10	SA CIPP/SA/B05/C-GRN/San Anselmo/44,340ft 15%	GS	CIPP	1.3	6,650			6-12	CIPP	39		\$ 432,250
13	FY21-11	SA CIPP/SA/B05/C-GRN/San Anselmo/44,340ft 15%	GS	CIPP	1.3	6,650			6-12	CIPP	39		\$ 432,250
14	FY21-12	SA CIPP/SA/B05/C-GRN/San Anselmo/44,340ft 15%	GS	CIPP	1.3	6,650			6-12	CIPP	39		\$ 432,250
15	FY21-13	SA CIPP/SA/B05/C-GRN/San Anselmo/44,340ft 15%	GS	CIPP	1.3	6,650			6-12	CIPP	39		\$ 432,250
16	FY21-14	SA CIPP/SA/B05/C-GRN/San Anselmo/44,340ft 10%	GS	PB	0.8	4,430	3,160		6-8	HDPE	26	Pipeburst allowance due to size or condition	\$ 1,164,115
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<b>TOTAL</b>					<b>17.7</b>	<b>93,260</b>	<b>18,720</b>		<b>=</b>	<b>111,980</b>	<b>feet (Actual + Laterals + In Lieu)</b>		<b>\$ 22,366,013</b>

Number	Area	Project Description	Type	Method	Actual Pipe Length, mi	Actual Pipe Length, ft	Lateral Length, ft	In Lieu Length, ft	Size	Pipe Material	No. of MHs	Comments	Total \$
<b>Fiscal Year</b>		<b>2022</b>											
1	PB	RVSD District Capital Pipebursting Crew	GS	PB	1.0	5,280	3,770		8	HDPE	15	Replacement of maintenance problem lines	\$ 850,000
2	LRGP	RVSD Lateral Replacement Grant Program	LAT	LRGP			9,050					Grants for homeowner replacement of private sewer laterals	\$ 500,000
3	FY22-1	SA Ross Valley Trunk Sewer - Downtown San Anselmo	TL	OC	1.3	6,580			30-36	HDPE	27		\$ 13,160,000
4	FY22-2	RO/SA Ross Valley Trunk Sewer Engineering Services During Construction	TL	ENG									\$ 3,948,000
5	FY22-3	GB/LK SFD/FM 1 Ross Valley Interceptor Force Main Replacement Design 25%	FM	ENG					54	HDPE			\$ 1,795,500
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<b>TOTAL</b>					<b>2.3</b>	<b>11,860</b>	<b>12,820</b>		<b>=</b>	<b>24,680</b>		<b>feet (Actual + Laterals + In Lieu)</b>	<b>\$ 20,253,500</b>

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

In the matter of:	)	
	)	
<b>SANITARY DISTRICT #1</b>	)	<b>Order No. R2-2012-0055</b>
<b>OF MARIN, a.k.a. ROSS</b>	)	
<b>VALLEY SANITARY DISTRICT</b>	)	<b>Settlement Agreement and Stipulation for</b>
	)	<b>Entry of Order; Order</b>
<b>Administrative Civil Liability</b>	)	
<b>for Sanitary Sewer Overflows</b>	)	

**Section I: Introduction**

This Settlement Agreement and Stipulation for Entry of Administrative Civil Liability Order (“Stipulation” or “Stipulation and Order”) is entered into by and between the Regional Water Quality Control Board Prosecution Staff (“Prosecution Staff”) and Sanitary District No. #1 of Marin, also known as Ross Valley Sanitary District (“Settling Respondent”) (collectively “Parties”) and is presented to the San Francisco Bay Regional Water Quality Control Board (“Regional Water Board”) for adoption as an Order, by settlement, pursuant to Government Code section 11415.60.

**Section II: Recitals**

1. The Settling Respondent owns, operates, and maintains a collection system in Marin County that serves a population of approximately 50,000. The Settling Respondent’s collection system is approximately 195 miles of gravity sewer pipeline, 9 miles of force mains, and 20 pumping stations that collect and transport an average of five million gallons of wastewater per day to the Central Marin Sanitation Agency Treatment Plant.
2. The collection system is subject to the requirements set forth in the Federal Water Pollution Control Act (“Clean Water Act”) (33 U.S.C. § 1311 et seq.), the Statewide General Waste Discharge Requirements, State Water Resources Control Board (“State Water Board”) Order No. 2006-0003-DWQ, and State Water Board Monitoring and Reporting Requirements Order No. WQ 2008-0002-EXEC (amending Order No. 2006-0003-DWQ).
3. The Prosecution alleges the following violations (collectively referred to as the “Alleged Violations”).
  - a. Between January 1, 2008, and April 21, 2011, there were 36 sanitary sewer overflows (“SSOs”) of untreated wastewater that discharged to waters of the State and the United States, violating Order No. 2006-0003-DWQ section C. Prohibitions 1. The Settling Respondent is subject to administrative civil

- liability pursuant to California Water Code sections 13385(a)(1), (2) and (5), and 13385(c) for each unauthorized discharge, violation of the waste discharge order, and failure to comply with section 301 of the Clean Water Act. These 36 SSOs totaled 3,125,493 gallons discharged, of which 2,555,535 gallons were not recovered or cleaned up.
- b. On or about and between December 17 and 19, 2010, the Settling Respondent failed to provide notice within 2 hours of becoming aware of the SSOs to the local health officer or directors of environmental health, and the Regional Water Board. The Settling Respondent failed to submit within 24 hours to the Regional Water Board a certification that the Settling Respondent had notified the State Office of Emergency Services and the local health officer or directors of environmental health of the SSOs. The failure to provide notice and certification of notice violated reporting requirements in Order No. 2006-0003-DWQ as amended by Order No. WQ 2008-0002-EXEC and subjects the Settling Respondent to administrative civil liability pursuant to Water Code sections 13267(a), and 13268(a)(1)-(2).
- i. The Settling Respondent initially reported the December 17-19, 2010, SSOs within 2 hours to the California Emergency Management Agency (“CalEMA”) (formerly known as the State Office of Emergency Services) as a 1,000-gallon SSO not reaching surface waters. On December 18, 2010, the Settling Respondent discovered that the SSO and other SSOs in close proximity were greater than 1,000 gallons and had reached surface waters. The Settling Respondent notified the Regional Water Board and Marin County Environmental Health Services on December 22, 2010, and updated CalEMA on December 27, 2010.
- ii. The Settling Respondent failed to provide notice of the SSOs to the Regional Water Board and Marin County Environmental Health Services for five days from December 17 through December 22, 2010. The Settling Respondent failed to provide updated accurate information to CalEMA for nine days from December 18 through December 27, 2010.
- c. On or about January 1, 2011, and January 6, 2011, the Settling Respondent failed to submit a certified report in the California Integrated Water Quality System (“CIWQS”) within 15 days after completing response and remediation for the SSOs. Failing to submit the certified reports to the online SSO system violated requirements in Order No. 2006-0003-DWQ as amended by Order No. WQ 2008-0002-EXEC and subjects the Settling Respondent to administrative civil liability pursuant to Water Code sections 13267(a), and 13268(a)(1)-(2).

- i. For the December 17-19, 2010, SSOs, the Settling Respondent submitted a certified report in CIWQS on April 4, 2011, 91 days after the certified report due date of January 4, 2011. The statutory maximum liability is \$1,000 a day.
  - ii. For the December 22, 2010, SSOs, the Settling Respondent submitted a certified report in CIWQS on April 4, 2011, 88 days after the due date of January 7, 2011.
- d. Between December 22, 2010, and December 12, 2011, the Settling Respondent failed to report an SSO from manhole #2647 in CIWQS pursuant to Order No. 2006-0003-DWQ as amended by Order No. WQ 2008-0002-EXEC. The Settling Respondent is subject to administrative civil liability pursuant to Water Code sections 13267(a), and 13268(a)(1)-(2).

4. To resolve by consent and without further administrative proceedings certain alleged violations of the California Water Code, the Statewide General Waste Discharge Requirements in Order No. 2006-0003-DWQ, and State Water Board Monitoring and Reporting Requirements Order No. WQ 2008-0002-EXEC, the Parties have agreed to the imposition of \$1,539,100 against the Settling Respondent, which includes \$75,600 for staff costs. Payment of \$807,350 to the State Water Pollution Cleanup and Abatement Account is due no later than 30 days following the Regional Water Board executing this Order. The remaining \$731,750 in penalties shall be suspended upon completion of two Supplemental Environmental Projects ("SEP") described in Attachments A and B of this Order. The Southeastern Creekside Marsh Habitat Enhancement SEP is for \$249,370 and the Private Lateral Replacement Grant Program SEP is for \$482,380.

5. The liability amount was determined using a factors analysis consistent with Water Code section 13385 and the State Water Board Water Quality Enforcement Policy (May 2010)("Enforcement Policy"). The staff report dated February 15, 2012, contained in Attachment C and incorporated herein describes the violations and liability consideration.

6. The Parties have engaged in settlement negotiations and agree to settle the matter without administrative or civil litigation and by presenting this Stipulation to the Regional Water Board for adoption as an Order pursuant to Government Code section 11415.60. The Prosecution Staff believes that the resolution of the alleged violations is fair and reasonable and fulfills its enforcement objectives, that no further action is warranted concerning the Alleged Violations except as provided in this Stipulation and that this Stipulation is in the best interest of the public.

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### **Section III: Stipulations**

The Parties stipulate to the following:

7. **Administrative Civil Liability:** The Settling Respondent hereby agrees to pay the administrative civil liability totaling \$1,539,100 as set forth in Paragraph 4 of Section II herein. Further, the Settling Respondent agrees that \$731,750 of this administrative civil liability shall be suspended pending completion of the two SEPs as set forth in Paragraph 4 of Section II herein and Attachments A and B attached hereto and incorporated by reference.

8. The Parties agree that this resolution includes two supplemental environmental projects (SEPs) as provided for as follows:

#### **a. Definitions**

“Cleanup and Abatement Account” – the State Water Pollution Cleanup and Abatement Account.

“Implementing Party” – An independent third party with whom the Settling Respondent has contracted or otherwise engaged to implement the SEP.

“Oversight Party” – An independent third party with whom the Settling Respondent has contracted or otherwise engaged to oversee the SEP.

“Milestone Requirement” – A requirement with an established time schedule for meeting/ascertaining certain identified measurements of completed work. Upon the timely and successful completion of each milestone requirement, an amount of liability will be permanently suspended or excused as set forth in the Description of the SEP below.

“SEP Completion Date” – The date in which the SEP will be completed in its entirety.

#### **b. Administrative Civil Liability and Costs Of Enforcement**

##### **1. Total Civil Liability**

The Settling Respondent shall be subject to administrative civil liability in the total amount of \$1,539,100. This includes the amount of \$75,600 for the costs incurred by Regional Water Board staff to investigate and prosecute the administrative civil liability enforcement action. The administrative civil liability also includes the cost of two SEPs in the amount of \$731,750 total. The cost of the SEPs will be referred to as the SEP Amount and will be treated as a Suspended Administrative Civil Liability.

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## 2. Payment and Costs

Payment of \$807,350 shall be made within 30 days of receipt of the Stipulated Order executed on behalf of the Regional Water Board to the Cleanup and Abatement Account. Payment shall be submitted to the San Francisco Bay Regional Water Quality Control Board, Attn: Claudia Villacorta, 1515 Clay Street, Suite 1400, Oakland, CA, 94612.

## 3. Funding of Special Environmental Projects

The Settling Respondent agrees to fund the SEPs as described further in Section III, Paragraph 8.c., and Attachments A and B.

### c. Description of the SEPs

#### 1. Southeastern Creekside Marsh Habitat Enhancement SEP

The goal of this project is to improve the habitat for flora and fauna in the eastern portion of Creekside Marsh by increasing the size of the existing single culvert near Bon Air Road to increase flushing action in the marsh. \$249,370 of the total SEP amount will fund seven tasks:

- a. characterize existing conditions,
- b. develop criteria for marsh design,
- c. design channels and culvert,
- d. conduct environmental review and obtain permits,
- e. enlarge culvert,
- f. install plants,
- g. monitor and report, and
- h. project management.

This SEP is to be implemented by the Friends of Corte Madera Creek, with the San Francisco Bay Estuary Partnership providing oversight. The Settling Respondent (or the Implementing Party or Oversight Party on behalf of the Settling Respondent) shall provide the final report, including vegetation monitoring, by October 15, 2016. Detailed plans including milestones, budget, and performance measures are provided in Attachment A.

#### 2. Private Lateral Replacement Grant Program

The goal of this project is to reduce inflow and infiltration flows into the Settling Respondent's collection system from leaky defective private sewer laterals. A reduction in flows will benefit water quality and beneficial uses by decreasing the number and volume of sewer overflows during wet weather. SEP funds will subsidize the replacement of 283 defective private laterals at \$1,700 each, with an emphasis on private laterals in basins that are determined to have the highest levels of inflow and infiltration. \$482,380 of the total SEP amount will be allocated to fund this SEP.

This SEP will be overseen by the San Francisco Bay Estuary Partnership. The Settling Respondent (or the Oversight Party on behalf of the Settling Respondent) shall provide the final report and certification of completion by November 1, 2016. Detailed plans concerning how the Settling Respondent will implement this SEP, as well as an implementation schedule and performance measures, are provided in Attachment B.

**d. Representations and Agreements Regarding SEPS**

1. Implementing Party Performing the Southeastern Creekside Marsh Habitat Enhancement SEP

As a material consideration for the Regional Water Board's acceptance of this Stipulated Order, the Settling Respondent represents that the Friends of Corte Madera Creek, as the Implementing Party, shall utilize the funds provided to it by the Settling Respondent to implement the SEP in accordance with the Project Milestones and Budget set forth in the Attachment A. The Settling Respondent understands that its promise to implement the SEP, in its entirety and in accordance with the schedule for implementation (including payments outlined in paragraphs 12 and 13 of Attachment A), is a material condition of this settlement of liability between the Settling Respondent and the Regional Water Board.

2. Settling Respondent Performing Private Lateral Replacement Grant Program SEP

a. Representation of the Settling Respondent

As a material consideration for the Regional Water Board's acceptance of this Stipulated Order, the Settling Respondent represents that it will utilize the funds outlined in Paragraph 8.c.2. to implement the SEP in accordance with the Project Milestones and Budget as described in Attachment B. The Settling Respondent understands that its promise to implement the SEP, in its entirety (subject to section I-3 of Attachment B, and pursuant to Paragraphs 8.i. and 8.j., below) and in accordance with the schedule for implementation, is a material condition of this settlement of liability between the Settling Respondent and the Regional Water Board.

3. Agreement of Settling Respondent to have the Southeastern Creekside Marsh Habitat Enhancement SEP Implemented, and to Implement the Private Lateral Replacement Grant Program SEP

The Settling Respondent represents that: 1) it will spend the SEP amounts as described in this Stipulated Order; 2) it will provide certified, written reports to the Regional Water Board consistent with the terms of this Stipulated Order detailing the implementation of the SEPs, and 3) within 30 days of the completion of the SEPs, it will provide written certification, under penalty of perjury, that the Settling Respondent followed all applicable environmental laws and regulations in the implementation of the SEP

including but not limited to the California Environmental Quality Act (CEQA), the Clean Water Act and the Porter-Cologne Act. The Settling Respondent agrees that the Regional Water Board has the right to require an audit of the funds expended by it to implement the SEP.

**e. Publicity Associated with SEPs**

Whenever the Settling Respondent or its agents or subcontractors or the Implementing Party publicizes one or more elements of one of the SEPs, they shall state in a **prominent manner** that the project is being undertaken as part of the settlement of an enforcement action by the Regional Water Board against the Settling Respondent.

**f. Submittal of Progress Reports**

The Settling Respondent and/or the Implementing Party shall provide quarterly reports of progress as described in Attachments A and B. The Settling Respondent and/or the Implementing Party shall permit inspection of the SEPs by Regional Water Board staff at any time without notice.

**g. Audits and Certification of Environmental Project**

1. Certification of Expenditures

- a. Southeastern Creekside Marsh Habitat Enhancement SEP: On or before October 15, 2016, the Settling Respondent (or the Implementing Party or Oversight Party on behalf of the Settling Respondent) shall submit a certified statement by a responsible district officer representing the Settling Respondent and a responsible official representing the Implementing Party documenting the expenditures by the Settling Respondent and the Implementing Party during the completion period for the SEP.
- b. Private Lateral Replacement Grant Program SEP: On or before November 1, 2016, the Settling Respondent shall submit a certified statement by a responsible district officer representing the Settling Respondent documenting the expenditures by the Settling Respondent during the completion period for the SEP.
- c. For both SEP certifications, the expenditures may be external payments to outside vendors or contractors implementing the SEP. In making such certification, the officials may rely upon normal company project tracking systems that capture employee time expenditures and external payments to outside vendors such as environmental and information technology contractors or consultants. The Settling Respondent shall provide any additional information requested by Regional Water Board staff that is

reasonably necessary to verify the Settling Respondent's SEP expenditures.

2. Certification of Performance of Work
  - a. Southeastern Creekside Marsh Habitat Enhancement SEP: On or before October 15, 2016, the Settling Respondent shall submit a report, under penalty of perjury, stating that the SEP has been completed in accordance with the terms of this Stipulated Order including Attachment A.
  - b. Private Lateral Replacement Grant Program SEP: On or before November 1, 2016, the Settling Respondent (shall submit a report, under penalty of perjury, stating that the SEP has been completed in accordance with the terms of this Stipulated Order including Attachment B.
  - c. For both Performance of Work Certifications, documentation may include photographs, invoices, receipts, certifications, and other materials reasonably necessary for the Regional Water Board to evaluate the completion of the SEP and the costs incurred by the Settling Respondent.
3. Certification that Work Performed on SEP Met or Exceeded Requirements of CEQA and Other Environmental Laws
  - a. Southeastern Creekside Marsh Habitat Enhancement SEP: On or before October 1, 2013, the Settling Respondent shall submit documentation, under penalty of perjury, stating that the SEP meets or exceeds the requirements of CEQA, if applicable, and/or other applicable environmental laws.
  - b. Private Lateral Replacement Grant Program SEP: Within two months of this Stipulation and Order becoming effective, the Settling Respondent shall submit documentation, under penalty of perjury, stating that the SEP meets or exceeds the requirements of CEQA, if applicable, and/or other applicable environmental laws.
  - c. For both SEPs, the Settling Respondent (or the Implementing Party on behalf of the Settling Respondent) shall, before the SEP implementation date, consult with other interested State agencies regarding potential impacts of the SEP. Other interested State agencies include, but are not limited to, the California Department of Fish and Game. To ensure compliance with CEQA where necessary, the Settling Respondent and/or the Implementing Party shall provide the Regional Water Board with the following documents from the lead agency:
    - i. Categorical or statutory exemptions;
    - ii. Negative Declaration if there are no "significant" impacts;

- iii. Mitigated Negative Declaration if there are potential "significant" impacts but revisions to the project have been made or may be made to avoid or mitigate those potential significant impacts; and
- iv. Environmental Impact Report if there are "significant" impacts.

4. Third Party Audit

If Regional Water Board staff obtains information that causes staff to reasonably believe that the Settling Respondent or Implementing Party has not expended money in the amounts claimed by the Settling Respondent or Implementing Party, or has not adequately completed any of the work in the SEPs, Regional Water Board staff may require, and the Settling Respondent shall submit, at its sole cost, a report prepared by an independent third party acceptable to Regional Water Board staff providing such party's professional opinion that the Settling Respondent and/or the Implementing Party has expended money in the amounts claimed by the Settling Respondent. In the event of such an audit, the Settling Respondent and the Implementing Party agree that they will provide the third-party auditor with access to all documents which the auditor requests. Such information shall be provided to Regional Water Board Staff within three months of the completion of the Settling Respondent's SEP obligations.

**h. Regional Water Board Acceptance of Completed SEP**

Upon the Settling Respondent's satisfaction of its obligations under this Stipulated Order, the completion of the SEPs and any audits, Regional Water Board staff shall request that the Regional Water Board issue a "Satisfaction of Order." The issuance of the Satisfaction of Order shall terminate any further obligations of the Settling Respondent and/or the Implementing Party under this Stipulated Order.

**i. Failure to Expend All Suspended Administrative Civil Liability Funds on the Approved SEPs**

In the event that the Settling Respondent is not able to demonstrate to the reasonable satisfaction of Regional Water Board staff that it and/or the Implementing Party has spent the entire SEP Amount for the completed SEPs, the Settling Respondent shall pay the difference between the Suspended Administrative Civil Liability and the amount the Settling Respondent can demonstrate was actually spent on the SEPs, as an administrative civil liability.

**j. Failure to Complete the SEP**

If either SEP is not fully implemented within the SEP Completion Period required by this Stipulated Order or there has been a material failure to satisfy a Milestone Requirement, Regional Water Board enforcement staff shall issue a Notice of Violation. As a consequence, the Settling Respondent shall be liable to pay the entire Suspended Liability or some portion thereof less the value of the completion of any Milestone Requirements. Unless otherwise ordered, the Settling Respondent shall not be entitled

to any credit, offset, or reimbursement from the Regional Water Board for expenditures made on the SEP(s) prior to the date of the "Notice of Violation" by the Regional Water Board. The amount of the suspended liability owed shall be determined by the Executive Officer or the Executive Officer's delegate. Upon notification of the amount assessed for failure to fully impellent the SEP(s), the amount assessed shall be paid to the Cleanup and Abatement Account within thirty days. In addition, the Settling Respondent shall be liable for the Regional Water Board's reasonable costs of enforcement, including but not limited to legal costs and expert witness fees. Payment of the assessed amount will satisfy the Settling Respondent's obligations to implement the SEP(s).

9. **Regional Water Board is Not Liable:** Neither the Regional Water Board's members nor the Regional Water Board's staff, attorneys, or representatives shall be liable for any injury or damage to persons or property resulting from acts or omissions by the Settling Respondent (or the Implementing Party where applicable), its directors, officers, employees, agents, representatives or contractors in carrying out activities pursuant to this Stipulated Order, nor shall the Regional Water Board, its members or staff be held as parties to or guarantors of any contract entered into by the Settling Respondent, its directors, officers, employees, agents, representatives or contractors in carrying out activities pursuant to this Stipulated Order. The Settling Respondent and the Implementing Party covenant not to sue or pursue any administrative or civil claim or claims against any State agency or the State of California, or their officers, employees, representatives, agents, or attorneys arising out of or relating to any matter expressly addressed by this Stipulated Order or the SEPs.

10. **Compliance with Applicable Laws:** The Settling Respondent understands that payment of administrative civil liability in accordance with the terms of this Order or compliance with the terms of this Order is not a substitute for compliance with applicable laws, and that continuing violations of the provisions of this Stipulation and Order may subject the Settling Respondent to further enforcement, including additional administrative civil liability.

11. **Attorney's Fees and Costs:** Except as otherwise provided herein, each Party shall bear all attorneys' fees and costs arising from the Party's own counsel in connection with the matters set forth herein.

12. **Matters Addressed by Stipulation:** Upon adoption by the Regional Water Board as an Order, this Stipulation represents a final and binding resolution and settlement of the Alleged Violations based on the specific facts alleged in this Stipulation and Order ("Covered Matters"). The provisions of this Paragraph are expressly conditioned on the full payment of the administrative civil liability by the deadlines specified in Paragraph 4, and the Settling Respondent's full satisfaction of the obligations described in Paragraphs 7 and 8.

13. **Public Notice:** The Settling Respondent understands that this Stipulation and Order will be noticed for a 30-day public review and comment period prior to

consideration by the Regional Water Board or its delegate. If significant new information is received that reasonably affects the propriety of presenting this Stipulation and Order to the Regional Water Board, or its delegate, for adoption, the Assistant Executive Officer may unilaterally declare this Stipulation and Order void and decide not to present it to the Regional Water Board or its delegate. The Settling Respondent agrees that it may not rescind or otherwise withdraw its approval of this proposed Stipulation and Order.

14. **Addressing Objections Raised During Public Comment Period:** The Parties agree that the procedure contemplated for adopting the Order by the Regional Water Board and review of this Stipulation by the public is lawful and adequate. In the event procedural objections are raised prior to the Order becoming effective, the Parties agree to meet and confer concerning any such objections, and may agree to revise or adjust the procedure as necessary or advisable under the circumstances.

15. **Interpretation:** This Stipulation and Order shall be construed as if the Parties prepared it jointly. Any uncertainty or ambiguity shall not be interpreted against any one Party. The Settling Respondent is represented by counsel in this matter.

16. **Modification:** This Stipulation and Order shall not be modified by any of the Parties by oral representation made before or after its execution. All modifications must be in writing, signed by all Parties and approved by the Regional Water Board.

17. **If Order Does Not Take Effect:** In the event that this Order does not take effect because it is not approved by the Regional Water Board, or its delegate, or is vacated in whole or in part by the State Water Resources Control Board or a court, the Parties acknowledge that they expect to proceed to a contested evidentiary hearing before the Regional Water Board to determine whether to assess administrative civil liabilities for the underlying alleged violations, unless the Parties agree otherwise. The Parties agree that all oral and written statements and agreements made during the course of settlement discussions will not be admissible as evidence in the hearing. The Parties agree to waive any and all objections based on settlement communications in this matter, including, but not limited to:

- a. Objections related to prejudice or bias of any of the Regional Water Board's members or their advisors and any other objections that are premised in whole or in part on the fact that the Regional Water Board's members or their advisors were exposed to some of the material facts and the Parties' settlement positions as a consequence of reviewing the Stipulation and/or the Order, and therefore may have formed impressions or conclusions prior to any contested evidentiary hearing in this matter; or
- b. Laches or delay or other equitable defenses based on the time period for administrative or judicial review to the extent this period has been extended by these settlement proceedings.

18. **Waiver of Hearing:** The Settling Respondent has been informed of the rights provided by Water Code section 13323, subdivision (b), and hereby waives its right to a hearing before the Regional Water Board prior to the adoption of the Stipulation and Order.

19. **Waiver of Right to Petition:** The Settling Respondent hereby waives its right to petition the Regional Water Board's adoption of the Order for review by the State Water Board, and further waives its rights, if any, to appeal the same to a California Superior Court and/or any California appellate level court.

20. **Settling Respondent's Covenant Not to Sue:** The Settling Respondent covenants not to sue or pursue any administrative or civil claim(s) against any State agency or the State of California, their officers, board members, employees, representatives, agents, or attorneys arising out of or relating to any Covered Matter.

21. **Necessity for Written Approvals:** All approvals and decisions of the Regional Water Board under the terms of this Stipulation and Order shall be communicated to the Settling Respondent in writing. No oral advice, guidance, suggestions or comments by employees or officials of the Regional Water Board regarding submissions or notices shall be construed to relieve the Settling Respondent of its obligation to obtain any final written approval required by this Stipulation and Order.

22. **Authority to Bind:** Each person executing this Stipulation in a representative capacity represents and warrants that he or she is authorized to execute this Stipulation on behalf of and to bind the entity on whose behalf he or she executes the Stipulation.

23. **Effective Date:** The obligations under Paragraphs 4 and 6 of this Stipulation are effective and binding on the Parties only upon the entry of an Order by the Regional Water Board that incorporates the terms of this Stipulation.

24. **Severability:** This Stipulation and Order are severable; should any provision be found invalid the remainder shall remain in full force and effect.

25. **Counterpart Signatures:** This Stipulation may be executed and delivered in any number of counterparts, each of which when executed and delivered shall be deemed to be an original, but such counterparts shall together constitute one document.

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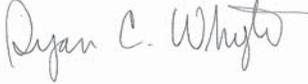
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Settlement Agreement and Stipulation for Entry of Order and Order  
Sanitary Settling Respondent #1 of Marin a.k.a. Ross Valley Sanitary District

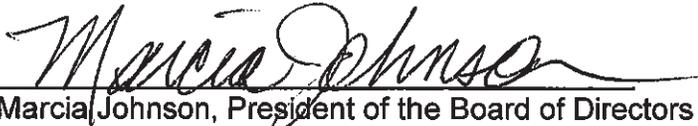
**IT IS SO STIPULATED.**

California Regional Water Quality Control Board Prosecution Team  
San Francisco Bay Region

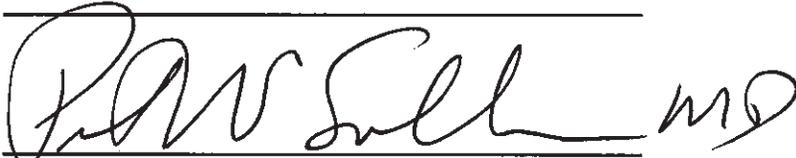
By:   
Dyan C. Whyte, Assistant Executive Officer

Date: April 20, 2012

Sanitary District #1 of Marin

By:   
Marcia Johnson, President of the Board of Directors

Date: \_\_\_\_\_

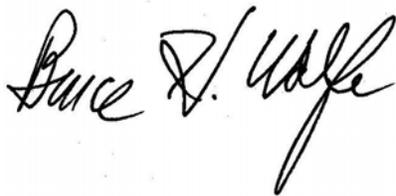
By:   
Dr. Peter Wm Sullivan, Secretary of the Board of Directors

Date: 19 Aug 2012

### Order of the Regional Water Board

1. This Order incorporates the foregoing Stipulation, the SEP proposals in Attachments A and B, and the Staff Report in Attachment C.
2. In accepting the foregoing Stipulation, the Regional Water Board has considered, where applicable, each of the factors prescribed in Water Code section 13385(e). The Regional Water Board's consideration of these factors is based upon information obtained by Regional Water Board staff in investigating the allegations in the Stipulation or otherwise provided to the Regional Water Board. In addition to these factors, this settlement recovers the costs incurred by the staff of the Regional Water Board for this matter.
3. This is an action to enforce the laws and regulations administered by the Regional Water Board. The Regional Water Board finds that issuance of this Order is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, sections 21000 et seq.), in accordance with section 15321(a)(2), Title 14, of the California Code of Regulations.

**IT IS HEREBY ORDERED**, pursuant to Water Code section 13323 and Government Code section 11415.60, on behalf of the California Regional Water Quality Control Board, San Francisco Bay Region.



Digitally signed by  
Bruce Wolfe  
Date: 2012.06.20  
16:02:41 -07'00'

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Bruce H. Wolfe  
Executive Officer

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Date

**ATTACHMENT C**

**STAFF REPORT TITLED PROPOSED ADMINISTRATIVE CIVIL LIABILITY FOR  
THE SANITARY DISCHARGER #1 OF MARIN (ALSO KNOWN AS "ROSS  
VALLEY SANITARY DISTRICT") REGARDING SANITARY SEWER  
OVERFLOWS: STAFF REPORT AND CONSIDERATION OF FACTORS  
UNDER WATER CODE SECTION 13385**



# California Regional Water Quality Control Board

## San Francisco Bay Region



**Matthew Rodriguez**  
Secretary for  
Environmental Protection

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(510) 622-2300 • Fax (510) 622-2460  
<http://www.waterboards.ca.gov/sanfranciscobay>

**Edmund G. Brown, Jr.**  
Governor

**TO:** Laura Drabandt  
Staff Counsel  
Office of Enforcement  
State Water Resources Control Board

**FROM:** Claudia Villacorta, P.E.  
Sr. Water Resources Control Engineer  
NPDES Enforcement Section  
San Francisco Bay Regional Water Quality Control Board

Reviewed and Approved By:

**DATE:** December 13, 2011

**SUBJECT:** Administrative Civil Liability for the Sanitary Discharger #1 of Marin (also known as “Ross Valley Sanitary District”) regarding Sanitary Sewer Overflows: Staff Report and Consideration of Factors under Water Code Section 13385

### INTRODUCTION

The Ross Valley Sanitary District (herein referred as the “Discharger”) provides wastewater collection service for the towns of Fairfax, San Anselmo, and Ross, the City of Larkspur, and the unincorporated areas of Sleepy Hollow, Kentfield, Kent Woodlands, Oak Manor, and Greenbrae. Under contract, the Discharger also serves the collection system of Murray Park and the conveyance system (pump station and force main) for San Quentin Prison. The Discharger owns, operates, and maintains approximately 195 miles of gravity sewer pipelines, 9 miles of force mains, and 20 pumping stations that collect and transport an average of 5 million gallons per day (MGD) of wastewater to the Central Marin Sanitation Agency (CMSA) Treatment Plant. The Discharger’s collection system serves a population of approximately 50,000.

From January 1, 2008, through April 21, 2011, the Discharger reported 149 SSOs that total 3,162,243 gallons with 2,588,758 gallons not recovered. Of the total volume not recovered, the Discharger reported approximately 2,553,944 gallons or 36 SSOs that reached waters of the United States.

Of the 36 SSOs reported that reached waters of the United States, 2 were particularly significant and resulted in the discharge of about 2,384,789 gallons of raw sewage diluted with storm runoff and groundwater to waters of the United States. The nature and circumstances of these overflows, which occurred from December 17-19, 2010, and on December 22, 2010, are discussed in detail below together with notification and reporting deficiencies for various SSOs related to both SSO reports. In general, the cause of the SSOs during December 17-19, 2010, was insufficient wet weather capacity of the Discharger’s collection system, particularly when



one of its major pump stations, the Kentfield Pump Station (or Pump Station 15), was shutdown, in combination with debris blockage. The cause of the SSOs during December 22, 2010, was pipeline failure and insufficient wet weather capacity of the collection system when Pump Station 15 was shut down, and possibly debris blockage. The causes of the remaining SSOs (totaling about 169,155 gallons of raw sewage to waters of the United States) were root and debris blockages, flow exceeding capacity, and pipeline/structural failure. The reported causes and final spill destinations of these SSOs are summarized in Tables 1 (see Appendix A).

The 36 SSOs that occurred during the period January 1, 2008, through April 21, 2011, resulted in the discharge of untreated wastewater and pollutants to waters of the United States in violation of State Water Board Orders (Order No. 2006-0003 DWQ and Order No. 2008-0002-EXEC) and Section 301 of the Clean Water Act. Pursuant to Water Code sections 13385(a)(1) and (5), the Regional Water Board may impose civil liability for an unauthorized discharge of pollutants to waters of the United States, and for violating section 301 of the Clean Water Act. For violations of the Orders reporting and notification requirements, the Regional Water Board may impose civil liability pursuant to Water Code section 13268(b)(1). Based upon consideration of the factors in Water Code Section 13385, which are discussed in detail below, the Assistant Executive Officer proposes that civil liability be imposed upon the Discharger in the amount of \$1,539,100.

### **AUTHORITY**

The requirements applicable to the Discharger are:

1. California Water Code section 13376 prohibits the discharge of pollutants to surface waters of the United States except in compliance with a National Pollutant Discharge Elimination System (NPDES) permit.
2. Federal Water Pollution Control Act (Clean Water Act) (33 U.S.C. § 1311) section 301 provides that it is unlawful for any person to discharge any pollutant into waters of the United States unless that person has complied with all permitting requirements under the Clean Water Act.
3. The Discharger's collection system is regulated by Statewide General Waste Discharge Requirements, Order No. 2006-0003 DWQ, adopted by the State Water Resources Control Board (or State Water Board) on May 2, 2006. As owner of a collection system, the Discharger is required to comply with Order No. 2006-0003 DWQ (or General WDR). The Discharger filed a Notice of Intent for coverage under the General WDR on July 11, 2006. The effective date of the General WDR is July 27, 2006.
4. Order No. 2006-0003 DWQ includes the following finding, prohibition and provisions:
  2. *Sanitary sewer overflows (SSOs) are overflows from sanitary sewer systems of domestic wastewater . . .*

### **C. PROHIBITIONS**

1. *Any SSO that results in a discharge of untreated or partially treated wastewater to waters of the United States is prohibited.*

*D. PROVISIONS*

8. *The Enrollee shall properly manage, operate and maintain all parts of the sanitary sewer system owned and operated by the Enrollee, and shall ensure that the system operators (including employees, contractors, or other agents) are adequately trained and possess knowledge, skills, and abilities.*

*I. INCOMPLETE REPORTS*

1. *If an Enrollee becomes aware that it failed to submit any relevant facts in any report required under this Order, the Enrollee shall promptly submit such facts or information by formally amending the report in the Online SSO Database (Herein referred as the California Integrated Water Quality System or CIWQS).*
5. The Discharger's collection system is also regulated by Monitoring and Reporting Requirements as revised by Order No. 2008-0002-EXEC, Amended Monitoring and Reporting Requirements for Order No. 2006-0003-DWQ.
6. Order No. 2008-0002-EXEC includes the following requirements:

*Notification*

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 not 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.*
4. *Category 1 SSOs-... all SSOs that meet the ... criteria for Category 1 SSOs must be reported...to the Online SSO System as soon as possible but not later than 3 business days after the Enrollee is made aware of the SSO...A final certified report must be completed through the Online SSO System, within 15 calendar days of the conclusion of SSO response and remediation.*

5. *Category 2 SSOs-All SSOs that meet the... 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...*

The California Water Code Provisions relevant to the Discharger are:

1. Pursuant to California Water Code section 13376, a discharger is prohibited to discharge pollutants to surface waters of the United States except in compliance with a National Pollutant Discharge Elimination System (NPDES) Permit. State Water Board Order No. 2006-0003-DWQ and Order No. 2006-0003 DWQ are not NPDES permits. A discharger is liable for violating section 13376 pursuant to California Water Code section 13385(a)(1) in an amount not to exceed the sum of both of the following:
  - a. Ten thousand dollars (\$10,000) for each day for each violation.
  - b. Ten dollars (\$10) for each gallon exceeding 1,000 gallons of discharge and not cleaned up.

If this matter is referred to the Attorney General for judicial enforcement, a higher liability of \$25,000 for each day for each violation and \$25 for each gallon exceeding 1,000 gallons of discharge and not cleaned up, may be imposed by a superior court

2. Pursuant to the Federal Water Pollution Control Act (Clean Water Act) (33 U.S.C. § 1311) section 301, a discharger is prohibited to discharge pollutants to surface waters of the United States except in compliance with an NPDES permit. A discharger is liable for violating section 301 of the Clean Water Act pursuant to California Water Code section 13385(a)(5) in an amount not to exceed the sum of both of the following:
  - a. Ten thousand dollars (\$10,000) for each day for each violation.
  - b. Ten dollars (\$10) for each gallon exceeding 1,000 gallons of discharge and not cleaned up.

If this matter is referred to the Attorney General for judicial enforcement, a higher liability of \$25,000 for each day for each violation and \$25 for each gallon exceeding 1,000 gallons of discharge and not cleaned up, may be imposed by a superior court

3. Pursuant to California Water Code section 13267(b)(1), a discharger is required to submit technical and monitoring reports for any discharge or proposed discharge to waters of the state. State Water Board Order No. 2006-0003-DWQ and Order No. 2006-0003 DWQ require technical and monitoring reports. A discharger is liable for violating section 13267 pursuant to section 13268(b)(1) for up to \$1,000 a day for each violation.

If this matter is referred to the Attorney General for judicial enforcement, a higher liability of \$5,000 for each day for each violation may be imposed by a superior court.

## **VIOLATIONS**

1. SSOs that occurred during the period January 1, 2008, through April 21, 2011, resulted in the discharge of untreated wastewater and pollutants to waters of the United States in violation of Order No. 2006-0003-DWQ, and Section 301 of the Clean Water Act, and California Water Code section 13376.
2. SSOs that occurred during the period January 1, 2008, through April 21, 2011, were caused by the Discharger's failure to properly operate and maintain its collection system in violation of Order No. 2006-0003-DWQ.
3. For the SSOs on December 17-19, 2010, , the Discharger failed to provide notice of the SSOs to the appropriate agencies within 2 hours, and to provide within 24 hours a certification that the local health officer had been notified of the discharge, thus violating Order No. 2008-0002-EXEC (amending Order No. 2006-0003-DWQ).
4. For the December 17-19, and 22, 2010, SSOs, the Discharger failed to timely report the SSOs via CIWQS in violation of Order No. 2008-0002-EXEC (amending Order No. 2006-0003-DWQ).
5. The Discharger failed to report via CIWQS an SSO that occurred from manhole # 2647 at the intersection of Behrens Drive and Sherwood Drive on December 22, 2010, in violation of Order No. 2008-0002-EXEC.

## **MAXIMUM LIABILITY**

The maximum administrative civil liability the Regional Water Board may impose for each of the violations described above is \$25,860,790. See Tables in Appendix A for calculations.

## **CONSIDERATION OF FACTORS**

### **Nature and Circumstances**

From January 1, 2008, through April 21, 2011, the Discharger reported 149 SSOs that total 3,162,243 gallons with 2,539,105 gallons not recovered. Of the total volume not recovered, the Discharger reported that approximately 2,553,944 gallons or 36 SSOs reached waters of the United States.

Of the 36 SSOs that occurred during the period January 1, 2008, through April 21, 2011, there were two significant SSOs reported that resulted in the discharge of about 2,384,789 gallons of raw sewage diluted with storm runoff and groundwater to surface waters of the United States. The nature and circumstances of these two SSO reports are discussed in more detail below. The causes of the remaining SSOs (totaling about 169,155 gallons of raw sewage to waters of the United States) are primarily root and debris blockages, flow exceeding capacity and pipeline/structural failure. The cause and final spill destinations of these SSOs are summarized in Tables A-1 (see Appendix A).

### **Background of System Operation Prior to December 2010 SSOs**

As depicted in Figure 1 (see Appendix B), during normal operation, sewage from the unincorporated areas of Kent Woodlands and portions of Kentfield flows through two parallel gravity pipelines (27-inch and 30-inch pipelines) along the Kent Middle School property, crosses Corte Madera Creek via a double barrel siphon, and then combines with sewage from the 39-inch Ross Valley gravity pipeline (which carries flows from the towns of Fairfax, San Anselmo, portions of Ross and the unincorporated area of Sleepy Hollow). This combined flow is then directed to either the 30-inch McAllister gravity pipeline or pumped via Pump Station 15 to the 36-inch Kentfield force main (Force Main 15<sup>1</sup>). Flows from Force Main 15 and the 30-inch McAllister pipeline are ultimately transported via a series pump stations and force mains to the CMSA Treatment Plant. According to the Discharger's Sewer Hydraulic Evaluation and Capacity Assurance Plan (SHECAP), Force Main 15 conveys about 60 percent of the Discharger's sewage flow during wet weather<sup>2</sup>.

Prior to the December 17-19, 2010, SSOs, the Discharger turned off Pump Station 15 in order to replace Force Main 15<sup>3</sup>. Force Main 15 is composed of Techite, a fiberglass material known to have a greater probability of failure than other pipeline materials, including catastrophic failures. Due to the high risk of failure and the critical nature of Force Main 15, its replacement was a priority for the Discharger. While Pump Station 15 was off, sewage in the 39-inch Ross Valley pipeline and the two parallel Kent Middle School pipelines flows to the 30-inch McAllister pipeline.

#### December 17 to 19, 2010, SSOs

The Discharger reported all SSOs that occurred during this time period as one SSO that discharged 909,991 gallons of raw sewage diluted with storm runoff and groundwater to waters of the United States. The Discharger reported that this SSO occurred over a period of three days from six different locations and was caused solely by construction-debris blockage. In response to the Prosecution Staff's requests, the Discharger provided additional details on March 2, 2011<sup>4</sup>, about the six SSO locations. Prosecution Staff summarized these details in Table 2, below. Figure 1<sup>5</sup> illustrates the various collection system pipelines, locations where these six overflow occurred, and relevant pump stations.

Upon further analysis of each of the locations and times when each SSO started and stopped, Prosecution Staff has determined that what was reported as one SSO, was four separate incidents. The rationale for this conclusion is described in subsections below for each of the overflow locations reported. In summary, the Prosecution Staff grouped the six SSO locations as follows: (1) SSO locations #1, #3, and #4, (2) SSO location #2, (3) SSO location #5, and (4) SSO location #6.

**Table 5. December 17-19, 2010, SSO Locations, Start/End Dates and Volumes**

<b>Number</b>	<b>SSO Location</b>	<b>Associated Pipeline(s) of SSO Location</b>	<b>Start Date/ Time</b>	<b>End Date/ Time</b>	<b>SSO Volume, gallons</b>
1	Cleanout at 5 Stadium Way	Sewer lateral that connects to 30-inch	12/17/10 20:43	12/18/10 01:30	24,482

Number	SSO Location	Associated Pipeline(s) of SSO Location	Start Date/ Time	End Date/ Time	SSO Volume, gallons
		McAllister pipeline			
2	Manhole #3863 at intersection of College Avenue and Magnolia Avenue	14-inch pipeline that connects to both parallel 27-inch and 30-inch Kent Middle School pipelines	12/17/10 23:00	12/18/10 13:00	62,364
3	Cleanout at 221 McAllister Avenue	Sewer lateral that connects to 30-inch McAllister pipeline	12/18/10 02:00	12/18/10 05:00	144
4	Manhole at Pump Station 15 Kentfield	Connects to Pump Station 15 which discharges to Kentfield Force Main (Force Main 15)	12/18/10 02:30	12/18/10 04:30	7,440
5	Manhole #7317 at Kent Middle School	30-inch Kent Middle School pipeline	12/18/10 07:30	12/18/10 15:00	998,100
6	Manhole #3800 at intersection of Laurel Street and Locust Street	pipeline that connects to 39-inch Ross Valley pipeline	12/18/10 19:40	12/19/10 03:10	18,000
<b>Total SSO Volume from all locations</b>					<b>1,110,530</b>
<b>Total SSO Volume Recovered</b>					<b>200,539<sup>b</sup></b>
<b>Total SSO Volume Reached Surface Water</b>					<b>909,991</b>

#### General Causes of December 17-19 SSOs

The shutdown of Pump Station 15, excessive I/I flows into the Discharger's collection system, and debris or other material in the system, led to the SSOs summarized in Table 2.

As discussed in more detail in the Degree of Culpability Section below, during wet weather conditions, when Pump Station 15 is offline, some parts of the collection system are operating at a reduced capacity while other parts operate near maximum capacity. Additionally, the Discharger's collection system is subject to high rates of I/I due to its aging infrastructure (71 % of the system was constructed between 1940-1959<sup>7</sup>), high rainfall in the area, and low

permeability soils. The Discharger's collection system, in particular the Kent Woodlands collection system area, is located in a microclimate that receives some of the highest amounts of rainfall in Marin County. Due to the low permeability of the substrata leaking and broken sewer pipes end us acting as subdrains during storm events and taking a large amount of I/I<sup>8</sup>.

Based on precipitation data obtained from the Marin County Flood Control and Water Conservation District<sup>9</sup> (see Appendix A.1 for storm hyetograph), approximately 2.36 inches of rain fell over a 24-hour period at the Kentfield rain gauge site on December 17-18, 2010, and previous to this event, approximately 13.44 inches had fallen at the site since October 1, and 2.45 inches since December 1. Because the December 17-18, 2010, storm event was not the first storm event of the wet weather season, the soils were likely somewhat saturated. When soils are saturated, they have a reduced capacity of absorbing water and attenuating flows thus leading to greater surface water flows in nearby streams and greater I/I into the collection system. Stream elevation data, indicates a 3.4-foot increase in the elevation of surface water levels in Corte Madera Creek during the December 17-18, 2010 storm event. This notable rise in surface water levels over a short period suggests that soils in the surrounding area were indeed saturated prior to the storm and high I/I into the collection system likely.

For comparison, during the first storm event of the wet weather season on October 23-24, 2010, the Discharger had Pump Station 15 turned off with no SSO occurrences. Based on precipitation data obtained from the Marin County Flood Control and Water Conservation District, approximately 4.6 inches of rain fell over a 24-hour period at the Kentfield rain gauge site on October 23-24, 2010, and previous to this storm event only 0.5 inches of rain had fallen at the site since October 1 and no rain since June 1. Because the October 23-24, 2010, storm event was the first significant storm event of the wet weather season, the surrounding soils were minimally saturated. The stream water level rise in Corte Madera Creek during this storm event was less than half of the rise that occurred during the December 17-18, 2010, storm event (about a 1-foot rise was recorded during the October 23-24 storm event). When soils are unsaturated or minimally saturated, they have an increased capacity to absorb and attenuate water leading to minimal I/I flows into the collection system. With minimal I/I rates entering the system, the Discharger's collection system appears to have had sufficient capacity to handle wet weather flows during the October 23-24, 2010, storm event, even with Pump Station 15 turned off.

Our conclusion that debris could have been a factor in causing the overflows is based on the Discharger finding debris, including construction debris, in parts of the system, and the Discharger's reported overflow start and end times. On December 18 and 21, 2010, the Discharger removed debris from three manholes (manhole #3831, #2513 and #3813) along the 27-inch Kent Middle School pipeline between SSO locations #2 and #3. The debris removed consisted of asphalt pieces of various sizes<sup>10</sup> (see Photo 1 in Appendix D) and various other construction materials<sup>11</sup>. On December 19, 2010, the Discharger also removed pieces of running track from the screen at Pump Station 15 (see Photo 2 in Appendix D). Subsequently, on December 30, 2010, the Discharger cleaned the Corte Madera siphon and found debris in the 18-inch barrel of the siphon consisting of nail gun cartridges and Class II engineered backfill. Prior to the SSO events (on August 5, 2010, mid-October, 2010, and November 5, 2010), the Discharger documented discovering various other construction materials from the screens at Pump Stations 13 and 15, and from manholes on College Avenue and Magnolia Avenue<sup>12</sup>.

While there is no direct evidence to determine if debris found after these SSOs was present prior to or during the SSOs, the most plausible explanation for the disconnected timing of the overflows is that the lodging and dis-lodging of debris contributed to the timing and magnitude of the overflows, as described below.

#### Possible Chain of Events and Specific Causes of December 17-19, 2010, SSOs

The following sections provide a possible chain of events and causes for the December 17-19 SSOs based on the evidence provided to Regional Water Board Prosecution Staff. It also provides the rationale for the conclusion that the one single SSO reported by the Discharger were really four separately caused SSOs. The chain of events is based on the assumption that the overflow location start and stop times provided by the Discharger are accurate. Accurate manhole and cleanout rim elevation could verify or refute the chain of events. However, the Discharger does not have sufficiently accurate elevation information.

#### *December 17-19 SSO Locations # 1, #3, and #4*

The timing of the three SSOs at these locations was within minutes to a couple of hours of each other, so it is likely that these overflows are part of the same chain of events. Specifically, the following is a possible and likely chain of events:

- wet weather which began at approximately 02:00 on December 17 fully saturates soils and causes I/I, which in combination with the Pump Station 15 shutdown causes the 30-inch McAllister line to run at or near surcharged capacity;
- debris partially restricts flow in the line somewhere downstream of location #1;
- overflow at #1 cleanout starts December 17 at 20:43;
- some or all of the debris dislodges a few hours later on December 18 at about 01:30 and moves downstream to block the line somewhere downstream of location #3;
- overflow at #1 stops at 01:30;
- overflow at # 3 starts 30 minutes later at 02:00;
- same blockage causes higher surcharging upstream resulting in overflow at location #4 about 1 hour later at 02:30 (this assumes rim elevation at #1 is higher than #3 and #4, otherwise #1 would also overflow; if assumption is false, overflow at #4 would be unrelated to # 1 or #3 and was separately caused);
- rainfall stops at about 04:00 decreasing the rate of I/I, which in turn leads to lower flows and surcharge levels in the system;
- the blockage downstream of #3 could also fully or partially dislodge sometime prior to 05:00;
- overflow at #4 stops at 04:30; overflow at #3 stops at 05:00.

#### *December 17-19 SSO Location #2*

The SSO at location #2 appears to be separate from the other five overflows. While it started within 3 hours after the overflow at location #1 and 3 hours before the overflows at location #3 and #4, overflow location #2 is upstream from #1, #3 and #4. It also continued well over 8 hours

after overflows at #1, #3, and #4 stopped. The following is a possible and likely chain of events for the overflow at #2:

- wet weather starting on December 17, in combination with Pump Station 15 shutdown, causes 14-inch College Avenue line to run at or very near capacity with I/I;
- debris partially restricts flow in the line somewhere downstream of the manhole;
- surcharge level reaches manhole rim and overflow at #2 starts at 23:00;
- rain fall subsides and ends next morning on December 18 at about 04:00 (I/I starts to recede but blockage remains and overflow continues);
- debris blockage partially or fully dislodges sometime before 13:00;
- overflow at # 2 stops at 13:00 on December 18.

#### *December 17-19 SSO Location #5*

Location #5 is where the most significant overflow occurred. The cause appears to be separate from the other five overflows. This is because SSO #5 started over 2 hours after the overflows that were further down the system had stopped. While SSO #5 is in the same flow path downstream of SSO #2, the causes are likely separate because SSO #5 started 8.5 hours after SSO#2. The following is the possible and likely chain of events for SSO #5:

- wet weather starting on December 17, in combination with Pump Station 15 shutdown, causes the parallel Kent Middle School lines to run at higher flows than normal and the Corte Madera Creek siphon to operate at a reduced capacity;
- rain fall subsides and ends next morning on December 18 at about 04:00 (I/I starts to recede, but system still flowing high from residual I/I and Pump Station 15 shutdown);
- debris partially restricts flow somewhere downstream of the manhole possibly at the siphon early on December 18;
- overflow starts at 07:30;
- debris dislodges sometime before 15:00;
- overflow stops at 15:00 on December 18.

#### *December 17-19 SSO Location #6*

The cause of the SSO at location #6 appears to be separate from the other SSOs because it started about 5 hours after SSO #5 ended and was not along the same flow path as #2 and #5. It was also upstream of the flow path from SSOs #1, #3, and #4, and started over 14 hours after the last of these SSOs ended. The following is the possible and likely chain of events for SSO #6:

- rain fall starts again at about 16:00 on December 18 and subsides around 18:00;
- wet weather causes Laurel Avenue pipeline to run at or near capacity with I/I;
- debris or other material partially blocks the line and restricts flow;
- overflow starts at 19:40;
- rain fall restarts at 01:00 on December 19;
- blockage dislodges sometime before 03:00;
- overflow stops at 03:00.

#### 27-inch Kent Middle School Pipeline Collapse Not a Factor

On December 29, 2010, the Discharger inspected the 27-inch Kent Middle School pipeline and discovered it had collapsed in two locations. The cause of the collapse is unknown. It is also unknown whether the pipeline collapsed prior to or after the SSO events. Nonetheless, its collapse would not have restricted flows through the collection system. The new 30-inch Kent Middle School pipeline, which was installed about 1 foot deeper and in parallel to the 27-inch pipeline, was designed with sufficient capacity to handle all flows<sup>13</sup>.

#### December 22, 2010, SSOs

The Discharger reported all SSOs that occurred on December 22, 2010, as one SSO that discharged 1,474,798 gallons of raw sewage diluted with storm runoff and groundwater. The Discharger reported in CIWQS that this SSO occurred on one day from seven different locations and was caused by pipeline failure. The SSOs discharged to Central San Francisco Bay via Corte Madera Creek, both waters of the U.S.

In response to the Prosecution Staff's request, the Discharger provided additional details about the seven overflows. Prosecution staff summarized these details in Table 3, below. Figure 2<sup>14</sup> (in Appendix C) illustrates the various collection system pipelines where these seven overflows occurred.

Upon further analysis of the locations and times when each overflow started and stopped, Prosecution Staff has determined that this one reported SSO was four separate SSO incidents. The rationale for this conclusion is described in subsections below for each of the overflow locations reported. In summary, the Prosecution Staff grouped the seven SSO locations as follows: (1) SSO location #1, (2) SSO locations #2, #5, and #6 (3) SSO locations #3 and #4, and (4) SSO location #7.

**Table 6. December 22, 2010, SSO Locations, Start/End Times, and Volumes**

Number	SSO Location	Start Date/Time	End Date/Time	Total SSO Volume, gallons
1	Berm at Pit 5	12/22/10 9:18	12/22/10 10:20	58,178
2	Cleanout at 5 Stadium Way	12/22/10 11:00	12/22/2010 17:00	50
3	Manhole #7316 at Kent Middle School	12/22/10 11:00	12/22/10 23:00	8,460
4	Manhole #7317 at Kent Middle School	12/22/10 11:00	12/22/10 23:00	1,762,380
5	Manhole #2262 at Laurel Street	12/22/10 11:00	12/22/10 17:00	5,400
6	Cleanout at 18 Laurel Street	12/22/10 11:00	12/22/10 17:00	1,800
7	Cleanout at 131 Kent	12/22/10	12/22/10	300 <sup>15</sup>

Number	SSO Location	Start Date/Time	End Date/Time	Total SSO Volume, gallons
	Street	15:00	time not provided	
<b>Total SSO Volume from all Locations</b>				<b>1,836,568</b>
<b>Total SSO Volume Recovered</b>				<b>361,770<sup>16</sup></b>
<b>Total SSO Volume Reached Surface Water</b>				<b>1,474,798</b>

The cause of SSO location #1 was failure of the Techite portion of Force Main 15 along the berm at Pit 5 near Creekside Park. Upon discovery of the ruptured force main, the Discharger shut down Pump Station 15 to prevent further discharge from Force Main 15 at Pit 5 into Corte Madera Creek. The shutdown of Pump Station 15, excessive I/I flows into the Discharger's collection system, and debris or other material in the system, led to five additional overflows (SSOs #2-6). The cause of SSO #7 is likely blockage.

As discussed in more detail in the Degree of Culpability Section below, during wet weather conditions, when Pump Station 15 is offline, some parts of the collection system are operating at reduced capacity while others operate near maximum capacity. Additionally, as mentioned above for the December 17-19 SSOs, the Discharger's collection system is subject to high I/I rates. Approximately 1.24 inches of rain fell over a 24-hour period at the Kentfield rain gauge site on December 21-22, 2010. The storm intensity was not significant (see Appendix A.2 for storm hyetograph). It was not the first storm event in December and was preceded just three days prior by the 2.36-inch December 17-18, 2010, storm event. Thus, the soils were very likely saturated during the December 22, 2010, SSOs. Saturated soil cannot absorb stormwater which maximizes I/I effects in the collection system. This likely led to notable I/I flow into the system. This is evident in stream water level data, which show close to a 2-foot rise in surface water levels in Corte Madera Creek during the December 21-22, 2010, storm event<sup>17</sup>.

As discussed above for the December 17-19 SSOs, the conclusion that debris could have been a factor in causing the overflows is based on the Discharger finding debris including construction debris in parts of the system and the Discharger's reported overflow times. As previously mentioned, on December 30, 2010, the Discharger cleaned the Corte Madera siphon and found debris in the 18-inch barrel of the siphon consisting of nail gun cartridges and Class II engineered backfill. Additionally, on December 27, 2010, the Discharger found a hard hat at the screen of Pump Station 15<sup>18</sup>. While there is no evidence to determine if debris found after these SSOs was present prior to or during the SSOs, the fact that the SSOs at Kent Middle School (SSOs #3 and #4) ended six hours after the other SSOs strongly suggests that debris also played an important part in causing these overflows.

#### Possible Chain of Events and Specific Causes of December 22, 2010, SSOs

The following sections provide a possible chain of events and causes for the December 22, 2010, SSOs, and the rationale for the conclusion that the one single SSO was four separate SSOs. The chain of events is based on the assumption that the overflow start and stop times provided by the Discharger are accurate. Also, with the exception of SSO at location #1, accurate manhole and cleanout rim elevation could verify or refute the chain of events. However, the Discharger does not have accurate elevation information.

*December 22 SSO Location #1*

Overflow from location #1 occurred when Force Main 15 ruptured. Specifically, at approximately 09:18 on 12/22, the Techite portion of the force main failed catastrophically resulting in the overflow.

*December 22 SSO Locations #2, #5, and #6*

The timing of SSOs at locations #2, #5, and #6 was the same, so it is likely that these overflows are part of the same chain of events. Specifically, the following is a possible and likely chain of events:

- wet weather on December 21 and 22<sup>19</sup> causes I/I;
- due to rupture in Force Main 15, Pump Station 15 is shutdown at 09:30 to prevent sewage from entering Corte Madera Creek;
- I/I in conjunction with Pump Station 15 shutdown causes 30-inch McAllister line to run at or near surcharged capacity and the Corte Madera Creek siphon to operate at a reduced capacity;
- overflows at locations #2, #5, and #6 start at 11:00;
- rainfall subsides around 11:00 on December 22;
- shortly thereafter, debris partially restricts flow somewhere downstream of locations #2, #5, and #6;
- overflows continue for an additional 6 hours;
- debris dislodges sometime before 17:00;
- overflows at locations #2, #5, and #6 stop at 17:00.

*December 22 SSO Locations #3 and #4*

The timing of SSOs at locations #3 and #4 was the same, so it is likely that these overflows are part of the same chain of events. Specifically, the following is a possible and likely chain of events:

- wet weather on December 21 and 22 causes I/I;
- due to rupture in Force Main 15, Pump Station 15 is shutdown at 09:30 to prevent sewage from entering Corte Madera Creek;
- I/I in conjunction with Pump Station 15 shutdown causes the parallel Kent Middle School pipelines to run at higher flows than normal and the Corte Madera Creek siphon to operate at a reduced capacity;
- overflows at locations #3 and #4 start at 11:00;
- debris partially restricts flow in the Kent Middle School pipelines sometime before 17:00 somewhere downstream of the manholes possibly at the siphon or in one or both of the lines;
- overflows at locations #3 and #4 continue due to debris blockage even though overflows at locations #2, #5, and #6 stopped;

- debris dislodges sometime before 23:00;
- overflows at #3 and #4 stop at 23:00.

#### *December 22 SSO Location #7*

This SSO started about 4 hours after all other SSOs, so the cause of this SSO appears to be separate from the others. The following is the possible and likely chain of events for SSO #7:

- wet weather on 12/21 and 12/22 causes I/I;
- the Kent Avenue pipeline is running at or very near capacity due to previous wet weather I/I;
- debris partially restricts flow in the line somewhere downstream of the cleanout;
- overflow starts at 15:00;
- overflow end time is unknown, but Discharger reports that the total volume discharged of 300 gallons was all recovered.

#### SSO Notification Deficiencies

The Discharger initially reported the December 17-19, 2010, SSOs to the California Emergency Management Agency (CalEMA) as a contained, 1,000-gallon SSO on December 17, 2010, at 23:35 hours, within 2 hours of becoming aware of the SSO. Approximately, 1 hour later, on December 18, 2010, at about 00:30 hours, the Discharger learned that this SSO was greater than 1,000 gallons and that it had reached surface waters. Though it became aware of this, the Discharger did not notify or update CalEMA, the Regional Water Board, nor the Marin County Environmental Health Services within 2 hours. Additionally, the Discharger did not submit to the Regional Water Board within 24 hours, a certification that CalEMA and the local health department had been notified of a discharge to surface waters. Instead, the Discharger notified the Regional Water Board and the Marin County Environmental Health Services via telephone three days later on December 22, 2010, and updated CalEMA seven days later on December 27, 2010. Late notification deprived Regional Water Board staff of the opportunity to be onsite soon after the SSO events occurred to gather its own evidence regarding the nature, circumstances and potential water quality impacts of these events.

For the December 22, 2010, SSOs, the Discharger notified all appropriate agencies in a timely manner.

#### SSO Reporting Deficiencies

For the December 17-19, and 22, 2010, SSOs, the Discharger did not submit a certified report via CIWQS within 15 calendar days after completion of SSO response and remediation<sup>20</sup>. For the December 17-19, 2010, SSOs, the Discharger submitted a certified report on April 4, 2011, 91 days after the certified report due date of January 4, 2011. For the December 22, 2010, SSOs, the Discharger submitted a certified report via CIWQS, 88 days after the due date of January 7, 2011.

Furthermore, during the December 22, 2010, SSOs, the Discharger failed to report an unknown volume SSO that occurred on the same date, from manhole #2647 at the intersection of Behrens Drive and Sherwood Ct (see Appendix D, Photo 3). Photo 3 was taken by Nute Engineering, Inc. staff who stated that shortly after this photo was taken, a Discharger vactor truck arrived<sup>21</sup>. The total SSO volume discharged was likely small based on the photographic evidence and the fact that Discharger staff arrived to recover sewage shortly after the picture was taken. Nonetheless, this SSO should have been reported via CIWQS.

### **Whether the discharge is susceptible to cleanup or abatement**

Typically, the majority of insufficient capacity wet weather related SSOs are not susceptible to cleanup or containment because the sanitary collection system in the vicinity is more than full so the overflows cannot be easily routed back to it, and the storm drains and surface waters are also flowing high so the overflows cannot be contained and recovered from them. In some cases, a small portion of the SSO can be recovered and returned to a different part of the collection system that if there is sufficient capacity at that location, or transported directly to a treatment facility.

### **December 2010 SSOs and Other Capacity Related Wet Weather SSOs**

For the December 17-19, and 22, 2010, SSOs and other capacity related wet weather SSOs, less than 50% of these SSOs were susceptible to cleanup and abatement since the collection system, storm drains, and creeks are flowing full at the time.

### **All other SSOs**

For all other SSOs, either all or a portion of the SSO, can be contained and returned to the collection system for treatment. While the Discharger's average response time of about one hour is usually considered adequate, we note that the Discharger recovered a low percentage (12%) of all other SSOs.

### **Degree of toxicity of the discharge**

Untreated wastewater would be expected to have a deleterious effect on the environment, including causing potential nuisance in the near shore areas. Raw or diluted wastewater typically has elevated concentrations of biochemical oxygen demand, total suspended solids, oil and grease, ammonia, high levels of viruses and bacteria, trash (only in the case of raw sewage) and toxic pollutants (such as heavy metals, pesticides, personal care products, and pharmaceuticals). These pollutants exert varying levels of impact on water quality, and, as such, will adversely affect beneficial uses of receiving waters to different extents. These conclusions

are based on general knowledge of untreated wastewater and not on laboratory analysis of any specific SSO discharge conducted by the Discharger.

#### December 17-19 and 22, 2010, SSOs, and Other Capacity Related Wet Weather SSOs

The toxicity of the discharge for SSOs that occurred during wet weather conditions was medium. Since storm related SSOs are diluted with storm runoff and groundwater, they would not pose the same level of toxicity as an equal volume of raw sewage during non-storm conditions. While the Discharger provided calculations showing the levels of solids and biochemical oxygen demand for December 2010 SSOs were theoretically within federally permissible discharge standards because of dilution, Water Board prosecution staff maintains that solids and biochemical oxygen demand are just indicator parameters of an acceptable level of treatment, and that low levels of these indicator parameters alone (without treatment) is not proof that the sewage in the December 2010 SSOs were equivalent to sewage that has in fact gone through treatment processes. Biologically treated sewage reduces other pollutants that are not reflected in those two indicator parameters. Viruses and bacteria that are present in undisinfected wastewater at such levels where dilution alone cannot mitigate potential negative effects pose a serious water quality concern. Bacteria and viruses levels in raw sewage are typically tens of thousands times greater than safe levels. The sewage in the December 2010 SSOs was only diluted by ten to a hundred times. Furthermore, samples of the Corte Madera Creek indicated levels above bacteria water quality standards<sup>19</sup>. Other toxic pollutants such as ammonia, metals, pharmaceuticals, and personal care products, while diluted, may also been present at toxic concentrations in the discharge.

#### All other Non-Capacity Related Dry Weather SSOs

The toxicity of the discharge that occurred during dry weather conditions was high. These SSOs consisted of raw undiluted sewage. SSOs that occur during dry weather are generally much smaller in volume than wet weather related SSOs. The Discharger reported that its largest dry weather SSO from January 1, 2008, to April 21, 2011, had a volume of 7,200 gallons and was due to pipeline/structural failure on May 4, 2008. All except 1 gallon of this SSO was recovered.

### **Extent**

#### December 17-19, and 22, 2010, SSOs

Bacteria concentrations in receiving waters are used to indicate the presence of waste. The SSO events in December 2010 resulted in the exceedance of bacterial water quality standards<sup>22</sup>.

Bacterial monitoring results conducted by the Discharger in Corte Madera Creek on December 18, 2010, demonstrated total coliform bacteria as high as 16,000 colonies per 100 ml near the source (Kent Middle School site), and 100 feet upstream and downstream of the source. Fecal coliform bacteria as high as 16,000 colonies per 100 ml were detected near the source and 100 feet downstream of the source. E. Coli levels were detected as high as about 2,419 colonies per 100 ml near the source and 100 ft upstream and downstream<sup>23</sup>. Enterococci levels as high as 200 colonies per 100 ml were detected near the source and 100 feet upstream and downstream<sup>24</sup>.

Bacterial monitoring results conducted by the Discharger in Corte Madera Creek on December 23, 2010, demonstrated total coliform bacteria as high as 12,997 colonies per 100 ml near the source (West Side Creek Running Track site). E. Coli levels were detected as high as about 1,153 colonies per 100 ml at the source and 100 feet upstream and downstream. Enterococci levels as high as 538 colonies per 100 ml were detected near the source and 100 feet upstream and downstream.

The temporal extent of bacterial exceedances at various sampling locations was from December 18, 2010, to January 6, 2011.

### All Other SSOs

The temporal extent of the remaining SSOs which reached waters of the United States consisted of at least 39 days over 3 years. This is because the Discharger for the period of January 1, 2008, to April 21, 2011, with the exception of the December 17-19 and 22, 2010 SSOs, reported SSOs reaching surface waters during at least 39 days. The spatial extent of the SSOs generally includes Corte Madera Creek, San Anselmo Creek, Sleepy Hollow Creek, Fairfax Creek, Tamalpais Creek and Woodland Road Creek, all waters of the United States, throughout the Discharger's service area.

### Gravity

#### December 17-19, and 22, 2010, SSOs

As mentioned previously, the SSOs resulted in the discharge of a significant cumulative volume of raw sewage diluted with stormwater and groundwater to waters of the United States. Since it was diluted raw sewage, it did not pose the same level of toxicity or impact as an equal volume of raw sewage during dry weather. Nonetheless, because undisinfected sewage contain high levels of bacteria and virus, the December 2010 SSOs resulted in the posting of signs warning the public of sewage contamination, thus impacting water contact and non-water contact recreational uses. The Discharger was required to post signs warning of sewage contamination for a period of 24 days, from December 18, 2010, to January 10, 2011. It is likely, however, that some of the residual bacteria present in the Corte Madera Creek during this period were due to bacteria common in urban runoff (i.e., from animal waste). While some of the warning signs posted were precautionary in nature, they still restricted potential water contact recreational use, and aesthetic enjoyment and other non-contact water uses of Corte Madera Creek. Lower Corte Madera Creek is a popular spot for kayaking. Additionally, the SSOs impacted water quality and potentially other beneficial uses<sup>25</sup> with higher concentrations of toxic pollutants that would not otherwise be discharged to Corte Madera Creek. Other beneficial uses in this receiving water body are particularly important to protect, as Corte Madera Creek is among the few streams flowing to San Francisco Bay that retain a steelhead trout population<sup>26</sup>. Other species known or highly likely to be present in Corte Madera Creek and marsh include the federally threatened green sturgeon, the state threatened California black rail, and state and federally endangered California clapper rail<sup>27</sup>.

For the December 17-19, 2010, SSOs, the Marin County Environmental Health Services was not informed of the magnitude of the SSOs until December 22, 2010, and as such did not require the Discharger to post signs or sample Corte Madera Creek. Nonetheless, the Discharger stated that it posted warning signs along Stadium Way alignment and sampled Corte Madera Creek at locations near the Kent Middle School SSO site and 100 feet upstream and downstream of this site.

On December 23, 2010, in light of new information regarding the magnitude of the December 17-19, 2010, SSOs, and upon receiving notification of the SSOs on December 22, 2010, the County Health Department required the Discharger to post warning signs intermittently at a minimum of 1/2 mile upstream and downstream of the SSO sites. The County Health Department also required the Discharger to sample Corte Madera Creek near the SSO sites and 100 feet upstream and downstream, and then intermittently 1/2 mile upstream and downstream of the SSO sites. The Discharger posted signs as required and sampled Corte Madera Creek.

#### Other Capacity Related Wet Weather SSOs

The gravity of the other wet weather SSOs is below moderate. This is because although the SSOs are diluted with stormwater and groundwater, the combined volume of about 164,000 gallons that reached surface waters is moderately significant, and it is likely that there were impacts to beneficial uses of the receiving waters.

#### Non-Capacity Related Dry Weather SSOs

The gravity of dry weather SSOs is below moderate. The Discharger reported a combined total of about 5,100 gallons reaching surface waters during dry weather conditions. A majority of these SSOs (97 %) are small in volume (<1,000 gallons reaching surface waters) and received no dilution.

### **Any Voluntary Cleanup Efforts Undertaken and Cooperation**

#### Emergency Bypasses during December 17-19, and 22, 2010, SSOs

Upon arriving onsite during the December 2010 SSOs, the Discharger implemented several cleanup efforts to mitigate the effects of the SSOs. This included installing several emergency bypass systems to relieve and redirect flows within its collection system. The purpose of these emergency bypass systems was to reduce the volume of overflow occurring within the collection system. The specific bypass systems put in place are briefly described below:

1. COLLEGE AVE EMERGENCY BYPASS: On December 18 and 22, 2010 (time unknown), the Discharger placed a 5 MGD pump and a 6-inch hose above ground along College Avenue and Magnolia Avenue. Sewage was pumped from manhole #7322 on College Avenue and reintroduced into the system via manhole #3934 on Magnolia Avenue. This temporary bypass system reduced the amount of sewage flows entering the

Kent Middle School parallel pipelines by diverting flows from the Kentfield collection system area to the Larkspur collection system area.

2. PS25 to PS24 EMERGENCY BYPASS: On December 18, 2010, (time unknown) the Discharger placed a 5 MGD pump and 6-inch pipe along South Eliseo Drive from a manhole near Pump Station 25 to a manhole near Pump Station 24. According to the Discharger, this emergency bypass system did not significantly reduce flows during the SSO event and as such was not utilized during the December 22 SSOs<sup>28</sup>.
3. PS15 EMERGENCY BYPASS: On December 22, 2010, (time unknown) the Discharger placed a 12-inch pipe on the berm alongside Corte Madera Creek from a manhole near PS15 to manhole #4552 at the intersection of Magnolia Avenue and Bon Air Road. This emergency bypass system was not in place during the SSOs due to “contractor liability concerns”<sup>29</sup>.
4. EL PORTAL EMERGENCY BYPASS: On December 22, 2010, (time unknown) the Discharger placed a 20 horse power pump in a manhole on El Portal Drive (Manhole #5051) with an above ground hose extending to a manhole near Pump Station 13 (Manhole #3497). This bypass relieved flows in the 30-inch McAllister Line.

In terms of voluntary cooperation, though the Discharger ultimately provided the necessary evidence to corroborate what volume was recovered it did not do so until 10 months after the SSOs and only after repeated requests from Prosecution Staff for the evidence. Additionally, as of November 1, 2011, the Discharger has not updated CIWQS to indicate its findings on the volumes recovered during the December 17-19, and 22, 2010, SSOs.

The Discharger initially reported that it recovered approximately 105,352 gallons of sewage during the December 17-19, 2010, SSOs, and approximately 241,770 gallons of sewage during the December 22, 2010, SSOs. In response to the Prosecution Staff’s requests, the Discharger provided additional evidence to corroborate the total volume recovered during the December 2010 SSOs<sup>30</sup>, and revised the estimated total volume discharged and recovered. The revised volumes are shown in Table 2 and 3 above<sup>31</sup>.

#### Other Response Actions Related to December 17-19, 2010, SSOs

On December 18, 2010, in order to re-establish sewage flows through Force Main 15, the Discharger reconnected whatever portion of the new HDPE pipeline that had been installed to the remaining Techite portion of Force Main 15. The Discharger used a temporary repair coupler to reconnect the Techite to the new HDPE pipeline. By installing this temporary repair coupler, the Discharger was able to turn Pump Station 15 back on. It took the Discharger about eight to ten hours to install the coupler. Force Main 15 was then reenergized and Pump Station 15 was put back online on December 19, 2010.

#### Other Response Actions Related to December 22, 2010, SSOs

Upon shutting down Pump Station 15 on December 22, 2010, the Discharger immediately began repairing the ruptured Force Main 15. The Discharger opted to complete replacement of the entire remaining Techite portion of Force Main 15 by placing approximately 2,000 feet of HDPE pipeline aboveground from Pit 5 to Pump Station 15. It took the Discharger about 48 hours to

replace the remaining Techite portion of the force main. The Discharger will move this pipeline underground during the next construction season.

### **Any Prior History of Violations**

The Water Board has taken previous enforcement against the Discharger. On July 14, 2006, Water Board staff issued an administrative civil liability complaint proposing a civil liability of \$78,000 against the Discharger for SSOs totaling 472,600 gallons. The SSOs, which occurred on December 31, 2005, were caused by a shutdown of Pump Station 15 during a storm event. Pump Station 15 including its back-up power system shut down due to a power failure and a false over-temperature alarm that caused the pumps to automatically turn off. The phone line notification system also failed during this time. The Discharger corrected the problems with back-up power and phone line notification systems.

On April 24, 2006, the Discharger entered into a consent decree and order with Ms. Garril Page, a private citizen, to address violations of the Clean Water Act, 33 U.S.C. §1251et seq. (*Garril Page v. Sanitary District No. 1 of Marin County*, United States District Court, Northern District of California, case number C 05 4358). The consent decree and order requires the Discharger to implement a total of sixteen actions related to its sanitary sewer collection system. These actions include but are not limited to the following: implement an asset inspection program, develop a computerized maintenance management system, develop a capital improvement program and hire a professional engineer. The Discharger stated that it has complied with all consent decree and order requirements. Ms. Garril Page wrote a letter (dated September 2009) confirming that the Discharger has met and in some cases exceeded consent decree and order requirements.

### **Ability to Pay**<sup>32</sup>

The Discharger has the ability to pay the proposed penalty and continue to provide its services. The Discharger's operating budget for fiscal year 2010-2011 was \$16,455,340, with net assets totaling \$51,463,304 at the beginning of the fiscal year (July 1, 2010). The Discharger's primary sources of revenue are sewer service charges and property tax collection. The Discharger also receives some revenue from inspection fees, connection fees, and investment income.

The Discharger has authority to adjust its sewer rate scale to provide for financial needs in accordance with California Proposition 218 and District Ordinance 48. In fiscal year 2008-2009, the Discharger implemented sewer rate increases to ensure adequate financial resources are available to implement capital improvement and operation and maintenance needs through fiscal year 2010-2011.

The Discharger has two sewer rate zones. Prior to the sewer rate increases, the Discharger's annual sewer rates were \$270 per Equivalent Dwelling Unit (EDU) for the Ross Valley Rate Zone and \$342 per EDU for the Larkspur Rate Zone. For fiscal year 2010-2011, the Discharger's annual sewer fee is \$520 per EDU for the Ross Valley Rate Zone and \$592 per EDU for the Larkspur Rate Zone. This equates to a 93% increase in sewer rates from fiscal year

2008-2009 to fiscal year 2010-2011 for the Ross Valley Rate Zone and a 72% increase in rates for the Larkspur Rate Zone.

### **Degree of Culpability**

The Discharger is culpable for the violations because it is responsible for the proper operation and maintenance of its collection system facilities, and for achieving full compliance with prohibitions and provisions of Orders No. 2006-0003-DWQ and No. 2008-0002-EXEC, and Section 301 of the Clean Water Act. As noted earlier, the shutdown of Pump Station 15, excessive I/I flows into the Discharger's collection system, and debris or other material, including construction debris, in the system, led to the multiple SSOs that occurred December 17-19, 2010. As described below, a majority of these SSOs could have been mitigated with the implementation of an adequate contingency plan that included prior installation of emergency bypass systems and having a temporary repair coupler onsite prior to shutting down Pump Station 15. Additionally, the December 17-19, 2010, SSO #5 could have been mitigated with proper maintenance of the Corte Madera Creek siphon. As described below, the culpability for the December 22, 2010, SSOs is lower since it was originally caused by pipeline failure, which forced the Discharger to shutdown Pump Station 15. The pipeline failed without warning. The cause of the remaining SSOs was primarily blockages due to root and debris. These SSOs can be prevented with a more strategic cleaning and inspection program and system upgrades.

#### **December 17-19, 2010 SSOs**

The Discharger is culpable for the December 17-19, 2010, SSOs. The Discharger failed to timely put in place adequate contingencies and to properly maintain the Corte Madera Creek siphon.

*1. The Discharger had no adequate back-up plan in place in the event flows exceeded system capacity when Pump station 15 is shut down.*

Prior to shutting down Pump Station 15, the Discharger had no adequate contingency plan in place to redirect flows within its collection system in the event that flows exceeded the collection system capacities. During wet weather conditions, when Pump Station 15 is offline, the 30-inch McAllister pipeline is operating at or near maximum capacity. Additionally, when Pump Station 15 is offline, the capacity of the Corte Madera Creek siphon is likely reduced.

The hydraulic capacity of the 30-inch McAllister pipeline ranges from 11.4 to 14 million gallons per day<sup>33</sup>. The actual flows through the pipeline during the December 17-18, 2010, storm event were not measured, but can be estimated based on actual measured flows through the collection system during a similar but less intense storm event in February 2005 of 1.6 inches over a 24-hour period in Fairfax<sup>34</sup>. During that storm event, the flow through the 30-inch McAllister pipeline has a calculated average about 9 million gallons per day with a peak at about 16.5 million gallons per day<sup>35</sup>.

The hydraulic capacity of the Corte Madera Creek siphon<sup>36</sup> is about 16.3 million gallons per day<sup>37</sup>. Wastewater is “pulled” through the siphon when the upstream sewer elevation (at the junction manhole) is higher than the downstream sewer. When Pump Station 15 was shutdown, it caused the wastewater elevation in the downstream sewer to be higher than typical and most likely higher than design. When the wastewater level differential across the siphon was minimized, the draw or pull power of the siphon was reduced and less wastewater from upstream sewers would be pulled through the siphon. Additionally, when siphon is partially blocked, as likely occurred during overflow location #5, the siphon capacity was further reduced.

Considering that (1) the Corte Madera Creek siphon would be operating at a reduced capacity due to Pump Station 15 shutdown, (2) and that the 30-inch McAllister pipeline would be operating at, and at times very likely above, its maximum capacity during wet weather conditions, the Discharger should have had additional contingencies in place prior to the December 17-18, 2010, storm event. Specifically, the Discharger should have had the College Avenue and El Portal emergency bypass systems in place prior to the storm event. These bypass systems would have reduced the total volume of sewage discharged by redirecting flows to other parts of the collection system that were not under capacity constraints because of the Pump Station 15 project .

In addition, the Discharger should have had a temporary repair coupler on site prior to continuing to slip line Force Main 15 with an HDPE pipeline during the December 17-18 storm event. A temporary repair coupler enables the Discharger to reestablish sewage flows by reconnecting the new HDPE pipeline with the remaining Techite portion of Force Main 15. Installation of the temporary repair coupler would have allowed the Discharger to turn Pump Station 15 back on to alleviate capacity limitations of the system in anticipation of significant wet weather. Although the Discharger pre-ordered a temporary repair coupler, it did not do so until December 14, six business days after the Discharger made its decision to proceed with Force Main 15 replacement into the wet weather season<sup>38</sup>. This resulted in the repair coupler not being on site and available until December 18 after the SSO started. Having the coupler available could have significantly reduced the SSO volume.

Because Pump Station 15 shutdown likely contributed to the overflows at locations #1, #2, #3, #4, and #5, the Discharger’s failure to have in place an adequate back-up plan weighed into determining overall culpability for these SSOs.

*2. The Discharger did not properly maintain the double barrel siphon 5804/5805 under Corte Madera Creek (Corte Madera Creek siphon).*

Based on data provided by the Discharger, there is no evidence of when the Corte Madera Creek siphon was last cleaned prior to the December SSO events. It is likely that the siphon may not have been cleaned in the past couple of years. The Discharger’s policy is to clean siphons every 6 months. However, due to an oversight, the Discharger did not put the Corte Madera Creek siphon on a 6-month cleaning schedule. The Discharger should have regularly cleaned the Corte Madera siphon per its own maintenance plan particularly since there was construction in the line upstream during the summer. Cleaning of this siphon could have, at a minimum, reduced the amount of debris, including construction debris that accumulated within the siphon.

Since debris blockage at the siphon is a likely cause of SSO #5, the Discharger’s poor maintenance practices of the Corte Madera Creek siphon weighed into determining overall culpability for SSO#5. Nonetheless, as discussed below, the Discharger’s pipeline cleaning and inspection program to reduce debris-induced SSOs is on schedule and has the main elements necessary for an effective program to reduce such SSOs. Because the Discharger’s pipeline cleaning and inspection program is generally adequate, the Discharger’s pipeline maintenance practices did not significantly weigh into determining the overall culpability for SSOs #2 and #6.

December 22, 2010, SSOs

The Discharger is culpable for the December 22, 2010, SSOs, but there were circumstances beyond the Discharger’s control because Force Main 15 failed without warning. In this case, the Discharger had no alternative other than to shut down Pump Station 15 to prevent the direct discharge of raw sewage diluted with rainwater and groundwater from Force Main 15 into Corte Madera Creek. The Discharger was well aware of the critical nature of Force Main 15, and as discussed previously, had embarked on implementing a capital improvement project to replace this force main with a more reliable pipeline material. Since Force Main 15 failed without warning, the Discharger could not have planned the shutdown of Pump Station 15 by putting in place adequate contingencies prior to shutting down the pump station.

However, as discussed earlier, the Discharger did not properly maintain the Corte Madera Creek siphon. Cleaning of this infrastructure could have, at a minimum, reduced the amount of debris accumulated within the siphon, and also possibly reduced the likelihood that such debris further compromised the collection system’s ability to handle flows when Pump Station 15 was offline. Since debris blockage is a possible contributing cause that extended the duration of some December 22 SSOs, the Discharger’s poor maintenance practices of the Corte Madera Creek siphon weighed into determining overall culpability for these SSOs.

Other SSOs

The Discharger is culpable for SSOs caused by roots and debris. The Discharger has the necessary program elements, but could implement a more strategic root control and cleaning/inspection program to prevent such SSOs. The Discharger’s rate of SSOs including the rate of root and debris-induced SSOs appears comparatively higher than other agencies within Marin County and the San Francisco Bay region (see Tables 4, 5 and 6 below). The number of SSOs, in particular the number of root and debris related SSOs, has not decreased over the past three years. Additionally, of the total volume discharged due to debris blockages (29, 832 gallons), about 76% (22, 553 gallons) reached surface waters. However, of the total volume discharged due to root blockages (about 13,762 gallons), only about 830 gallons (6% of total volume) reached surface waters.

Table 7: All SSOs (Rate = # SSO/100 miles of system)				
Year	# of SSOs Reported by Discharger	Discharge r SSO rate	SF Bay Region Median SSO	Marin County Median SSO rate

			rate	
2008	47.0	22.5	7.2	16.3
2009	39.0	18.7	6.3	14.6
2010	43.0	20.6	5.6	9.8

Table 8: Root blockage caused SSOs (Rate = # SSO/100 miles of system)				
Year	# of SSOs Reported by Discharger	Discharger SSO rate	SF Bay Region Median SSO rate	Marin County Median SSO rate
2008	10.0	4.8	0.6	2.9
2009	18.0	8.6	1.1	8.2
2010	15.0	7.2	0.0	0.0

Table 9: Debris caused SSOs (Rate = # SSO/100 miles of system)				
Year	# of SSOs Reported by Discharger	Discharger SSO rate	SF Bay Region Median SSO rate	Marin County Median SSO rate
2008	10.0	4.8	0.0	0.0
2009	10.0	4.8	0.1	0.9
2010	15.0	7.2	0.0	0.0

The Discharger’s collection system cleaning and inspection program to reduce/eliminate debris and root-induced SSOs is on schedule and has the main elements necessary for an effective program to reduce debris and root-induced SSOs<sup>39</sup>. However, the Discharger’s rate of SSOs remains high and the Discharger needs to apply a more strategic approach in its efforts to reduce the number of SSOs due to roots and debris.

The Discharger is culpable for other SSOs due to insufficient capacity, excessive I/I, pipeline failure, and fats, oils, and grease (FOG) blockages. Over the past several years, the Discharger has completed various sewer rehabilitation and replacement projects and maintains a list of identified sewer rehabilitation needs. The Discharger is generally on track with its schedule to rehabilitate and replace collection system pipelines to address insufficient capacity, excessive I/I and aging infrastructure.

Additionally, the Discharger reports that it has a grease hotspot GIS database (established in July 2006) and a six-month priority maintenance schedule for flushing and/or rodding problem sewer lines. Additional sewer lines can be added to the six-month priority maintenance schedule after an SSO event or if closed circuit television (CCTV) inspection indicates grease buildup<sup>40</sup>. As of April 2007, the Discharger and the CMSA entered into an agreement for administering a FOG Control Program for use throughout its tributary service area, which includes the Discharger's service area. CMSA will be regulating targeted Food Service Establishments (FSE) through source control activities, including developing a database of FSEs, issuing permits, and inspecting facilities for proper installation and maintenance of grease removal devices.

#### Notification and Reporting Deficiencies

The Discharger is culpable for the notification violation because it failed to notify the appropriate regulatory agencies within 2 hours, and it did not submit within 24 hours, a certification that the local health officer had been notified of a discharge to surface waters.

The Discharger is culpable for the reporting violations. The reporting requirements have been in place since 2008, over 2 years prior to the December 17-19, and 22, 2010, SSOs. The Discharger was well aware of the reporting requirements and did not timely submit a certified report via CIWQS for these SSOs. The Discharger also did not report via CIWQS the SSO from manhole #2647 that occurred on December 22, 2010.

#### Economic Benefit

The Discharger gained no economic benefit or savings from the SSOs. The Discharger is on track with its schedule to clean/inspect and rehabilitate/replace its collection system pipelines pursuant to its Capital Improvement Strategic Plan developed in January 2007, and thus has not incurred any significant savings by delaying necessary upgrades. The Discharger also has staff who are responsible for responding to, evaluating, and reporting SSOs; thus there is no economic benefit of savings for the notification and alleged reporting deficiencies.

#### Other Factors as Justice May Require

##### Matters considered that increased the administrative civil liability

###### *Staff Time*

Regional Water Board Prosecution Team time to investigate the violations, and prepare this report, supporting evidence, and other documents related to those violations is estimated to be about 504 hours. Based on an average cost to the State of \$150 per hour, the total staff cost is \$75,600.

##### Matters considered that did not impact the administrative civil liability

Over the past several years, the District has completed various sewer rehabilitation and replacement projects and maintains a list of identified sewer rehabilitation needs. The District's Sewer System Replacement Master Plan (January 2007) included a review of the District's list of identified sewer rehabilitation needs as well as the capacity projects identified in the Sewer Hydraulic Evaluation and Capacity Assurance Plan (SHECAP). The recommended system improvements presented in the Sewer System Replacement Master Plan were incorporated into the District's Capital Improvement Strategic Plan (CIP). The Discharger's current annual capital expenditure budget for sanitary sewer system facilities is \$13,172,200<sup>41</sup>. The Discharger's annual capital expenditures rate or annual capital expenditure budget (\$) per 100 miles of system is approximately \$6.5 million/100 miles<sup>42</sup>. This rate is above the median rate of \$1.1 million/100 miles for San Francisco Bay Region collection system agencies with a collection system greater than 100 miles.

The District has demonstrated its commitment to improving its collection system by raising its sewer rates by a total of 93 percent for the Ross Valley Rate Zone and by a total of 72% for the Larkspur Rate Zone since fiscal year 2008-2009. These rates are on par with the other collection system's sewer rates in Marin County.

Prior to rehabilitating Force Main 15 and recognizing the capacity issues associated with the 30-inch McAllister Line, the Discharger rehabilitated the 30-inch McAllister Line in 2010. Additionally, in anticipation of the December 17-18 storm event, the Discharger stationed collection system staff to monitor sewage levels at the manholes likely to overflow. This allowed the Discharger to more rapidly initiate cleanup and abatement efforts in the event of sewage overflows.

Additionally, in early 2011 in response to the December 17-19 notification deficiencies, the Discharger conducted a review of its in-field notification and response practices during an SSO event. As a result of this review, the Discharger revised its SSO response plan and notification procedures in order to ensure adequate response and notification of SSOs. The revised plan and procedures include a flow chart for response activities and notification requirements for all SSO categories.

#### Matters considered that decreased the administrative civil liability

The Discharger reported that all 19 of its collection system staff maintain a California Water Environment Association (CWEA) certification. The CWEA certification provides evidence and a level of assurance that a Discharger is staffed with employees who have demonstrated an appropriate level of collection system O&M knowledge, skills, and abilities, and who are competent in safe work practices. The basic standard of CWEA certification is that all certificate holders have, and continue to perform at a level of basic competence that enables them to perform the essential duties of their job safely, effectively, without close supervision and without further training. Because of the Discharger's commitment to a knowledgeable and skilled work force, the proposed amount of the liability is reduced by \$14,400.

#### Penalty Calculation Methodology

The proposed liability is calculated in accordance with the methodology set forth in the State Water Board's Water Quality Enforcement Policy (dated May 20, 2010). A summary of the factors assigned for the alleged violations is summarized in the tables below.

**Table 10. Potential for Harm for Discharge Violations**

Category	Harm Factor	Reason
Harm or Potential Harm to Beneficial Uses	2	For the December 17-19, and 22, 2010, SSOs, the potential harm is below moderate. Though there were impacts to uses of Corta Madera Creek, a below moderate harm is warranted because the discharges were diluted with high wet weather flows in the receiving water; and the actual recreational uses are typically less during wet weather events. And while the Enforcement Policy indicates an “above moderate” or a “major” harm due to the more than 5 days of restrictions on beneficial uses, the high number of days posted were likely extended due to residual bacteria from urban runoff sources rather than the events themselves.
	1	For other capacity-related wet weather SSOs, the potential harm factor is minor for the same reasons as described above, and because they occurred in recreation areas with fewer, if any, days posted.
	2	For non-capacity related dry weather SSOs, the potential harm factor is below moderate, because though smaller in volume and thus smaller areal extent than wet weather related SSOs, there is little or no dilution from flows in the receiving water to reduce potential impacts.
Physical, Chemical, Biological, or Thermal Characteristics (Degree of Toxicity)	3	Discharge from the December 17-19, and 22, 2010, SSOs and other capacity-related and wet weather SSOs pose an above moderate risk or threat to potential receptors because, though diluted by I&I, the SSOs are not at all treated and would contain bacteria at levels exceeding human health standards and potentially toxic to aquatic organisms.
	3	All other non-capacity related dry weather SSOs pose an above moderate risk or threat to potential receptors because these SSOs consist of undiluted sewage.
Susceptibility to Cleanup or Abatement	1	For capacity-related wet weather SSOs, less than 50% of these SSOs is amenable to cleanup or containment because the collection system, storm drains, and creeks are also flowing full at the time;
	0	For all other SSOs, greater than 50% of each is susceptible to cleanup as the Discharger response time is adequate (average of about 1 hour). However, we note that the actual average SSO recovery is about 12 percent.
Final Potential to Harm Scores	6 5 5	For December 17-19, and 22, 2010, SSOs For other capacity-related SSOs; For non-capacity related dry weather SSOs

**Table 11. Per Gallon and Per Day Assessments for Discharge Violations**

Category	Factor	Reason
Per Gallon and Per Day Assessment	0.22	For December 17-19, and 22, 2010, SSOs, the discharge of a total of about 2.4 million gallons of untreated sewage to waters of the United States is a major deviation from required standards (Prohibition C.1 in Order No. 2006-0003 DWQ). The SSOs rendered the Prohibition on discharging untreated sewage to waters of the United States ineffective in its essential functions because the prohibition would be effective only if no SSO had occurred. Additionally, because these SSOs resulted in high volume of discharges resulting from wet weather, consistent with the direction in the Enforcement Policy, a maximum per gallon liability of less than \$10 is appropriate. Thus, for these SSOs, a maximum liability of \$2 per gallon was selected.
	0.15	For other capacity-related wet weather SSOs (including those SSOs due to pipeline failure and FOG), the discharge of about 151,000 gallons of untreated sewage to waters of the United States is a major deviation from required standards for the same reason as the December 17-19, and 22, 2010, SSOs. Along those lines, a maximum liability of less than \$10 per gallon is also appropriate. Thus, consistent with the direction in the Enforcement Policy, a maximum liability of \$2 per gallon was selected.
	0.15	For non-capacity related dry weather SSOs (including SSOs due to debris and root), the discharge of about 19,000 gallons of untreated sewage to waters of the United States is a major deviation from required standards for the same reason as stated above. However, unlike the above, the statutory maximum liability of \$10 per gallon is appropriate for these SSOs since these SSOs were not diluted by wet weather and did not result in high volume of discharges.

**Table 12. Assessments for Non-Discharge Violations**

Category	Factor	Reason
Per Day Assessment	0.7	Failure to provide 2-hour and 24-hour notification of the December 17-19, 2010, SSOs, warrants a major deviation from required standards and an above moderate potential for harm. The reporting requirement in Order No. 2008-0002-EXEC has been rendered ineffective in its essential functions. The necessary agencies were not notified in a timely manner so that they can perform their critical functions to control harm to the public by providing information to minimize the public’s exposure to the event, or to be on site to observe and investigate.
	0.4	Failure to accurately report SSO causes and to separately report in CIWQS each SSO from December 17-19, and 22, 2010, warrants an above moderate deviation from requirement and a moderate potential for harm. Moderate deviation is warranted because the Discharger did report that the SSOs occurred and the multiple locations. However, for both sets of SSOs, it failed to report each SSO separately despite its own evidence that point to separate causes due to very different SSO times and locations. The Discharger also failed to report capacity as a contributing cause despite the fact that (1) the SSOs occurred during and/or shortly after a significant storm, (2) the system has high I/I, and (3) a critical pump station was shutdown. Above moderate harm is warranted because theses failures both impeded Prosecution Staff’s prosecution of these matters, as well as compromise the integrity and reliability of the CIWQS public database that relies solely on accurate and complete self-reporting by dischargers.
	0.4	Failure to timely certify the December 17-19, and 22, 2010, SSOs via CIWQS warrants a moderate deviation from requirement and a moderate potential for harm. A moderate deviation is warranted because the Discharger ultimately certified the SSOs in CIWQS on April 4, 2011. Above moderate potential for harm is warranted because these failures compromise the integrity and reliability of the CIWQS public database that relies solely on accurate and complete self-reporting by dischargers. The public does not have access to reports until they are certified.
	0.4	Failure to report via CIWQS an SSO on December 22, 2010, from manhole #2647 warrants a major deviation from requirement and a moderate potential for harm. A major deviation is warranted because the Discharger did not report that the SSO occurred. A moderate potential for harm is warranted because this failure compromises the integrity and reliability of the CIWQS public database.

**Table 13. Violator’s Conduct**

Category	Adjustment Factor	Reason
Culpability	1.2	For December 17-19, 2010 SSOs #1, #2, #3, and #4, the Discharger is culpable because it failed to timely put in place an adequate back-up plan in case flows exceeded system capacity during Pump Station 15 shutdown.
	1.2	For the December 17-19, 2010, SSO #5, the Discharger is culpable because it failed to properly maintain the Corte Madera Creek siphon. Additionally, considering that the siphon capacity is likely reduced when Pump Station 15 is shutdown, the Discharger should have put in place an adequate back-up plan in case flows exceeded system capacity.
	1.0	For the December 17-19, 2010, SSO #6, the Discharger is culpable because it is responsible for maintaining its collection system pipelines. Although the Discharger's cleaning and inspection program could be more strategic, the Discharger's pipeline maintenance practices are reasonable.
	0.5	For the December 22, 2010, SSOs #1, #2, #5, and #6, the Discharger is culpable, but there were circumstances beyond the Discharger's control because Force Main 15 failed without warning. The Discharger was well aware of the critical nature of Force Main 15 and had embarked on rehabilitating it. It had no alternative but to shut down Pump Station 15 once Force Main 15 ruptured in order to prevent or reduce direct discharge of sewage flows into Corte Madera Creek.
	1.2	For the December 22, 2010, SSOs #3 and #4, the Discharger is culpable because it failed to properly maintain the Corte Madera Creek siphon.
	1.0	For the December 22, 2010, SSO #7, Discharger is culpable because it is responsible for maintaining its collection system pipelines. Although the Discharger's cleaning and inspection program could be more strategic, the Discharger's pipeline maintenance practices are reasonable.
	1.0	For SSOs due to debris and root blockages, the Discharger is culpable, but not negligent. The Discharger could have implemented a more strategic root control and cleaning/inspection program to reduce and prevent such SSOs.
	1.0	For all other SSOs primarily due to insufficient capacity, excessive I/I,

Category	Adjust- ment Factor	Reason
		<p>pipeline failure and FOG, the Discharger is culpable, but not negligent. The Discharger has completed various rehabilitation/replacement projects over the years and reports an adequate FOG control program to prevent such SSOs.</p> <p>1.0 For failure to provide 2-hour and 24-hour notifications for the December 17-19 SSOs, the Discharger is culpable and no adjustment is warranted.</p> <p>1.2 For failure to accurately report the December 17-19, and 22, 2010, SSOs via CIWQS, the Discharger is culpable. An increase is warranted because the Discharger shared little or no analysis of its own evidence with the Prosecution Staff of the SSOs to substantiate its original conclusion as to cause or relationship, and failed to amend CIWQS to report capacity as a contributing cause. The Discharger has had access to, and ample time to analyze, its own evidence since at least March 2, 2011, when the Discharger provided the evidence in response to a Water Board's Prosecution Staff 13267 order. Thus, as of November 1, 2011, the Discharger has accrued a total of 490 violation days for failing to amend CIWQS with relevant facts pertaining to SSO causes. However, because these violations lasted more than 30 days, consistent with the Enforcement Policy, it is appropriate to compress this total down to 28 days' worth of violations.</p> <p>1.0 For failure to timely report the December 17-19, and 22, 2010, SSOs via CIWQS, the Discharger is culpable. The Discharger submitted the certified reports via CIWQS a total of 179 days past the required due dates. However, because these violations lasted more than 30 days, consistent with the Enforcement Policy, it is appropriate to compress the total down to 17 days' worth of violations.</p> <p>1.0 For failure to report an SSO on December 22, 2010, from manhole #2647, the Discharger is culpable and no adjustment is warranted. For this SSO, the Discharger has not yet submitted a certified report via CIWQS. Thus, as of November 1, 2011, the Discharger has accrued a total of 300 violation days. However, because this violation has lasted more than 30 days, consistent with the Enforcement Policy, it is appropriate to compress the total down to 16 days' worth of violation.</p>

Category	Adjustment Factor	Reason
Cleanup and Cooperation	1.06	For the December 17-19, 2010, SSOs, no credit is assigned for the Dischargers emergency bypass measures, because they could have been in place earlier. However, the Discharger failed to timely provide documentation of SSO recovery volumes which impeded Prosecution Staff's investigation.
	0.95	For the December 22 SSOs, the Discharger installed several emergency bypass systems to relieve and redirect flows within its collection system; thus reducing the volume of the SSOs. However, less credit is assigned because the Discharger failed to timely provide documentation of SSO recovery volumes which impeded Prosecution Staff's investigation.
	1.1	For SSOs due to debris and root blockages, the volume of SSO recovered averages only 12% of the volume overflowed, despite a good response time of within 1 hour.
History of Violations	1	There is no history of SSOs similar to the December 17-19, and 22, 2010, SSOs as the circumstances for these events are unique. There is also no known evidence of history of non-reporting or inaccurate reporting and no known history of failure to timely notify the appropriate agencies.
	1.1	For all other SSOs, there is a history of similar SSOs reported.
Other factors that justice may require: <ul style="list-style-type: none"> <li>• Overall issues</li> </ul>	Neutral	Over the past several years, the Discharger has demonstrated its commitment to improving its collection system through the implementation of various capital improvement projects. The Discharger recently revised its SSO response plan and reporting procedures in order to ensure adequate response and reporting of SSOs.
<ul style="list-style-type: none"> <li>• Increased sewer rates</li> </ul>	Neutral	The Discharger has demonstrated its commitment to improving its collection system by raising its sewer rates by a total of 93 percent for the Ross Valley Rate Zone and by a total of 72% for the Larkspur Rate Zone since fiscal year 2008-2009. These rates are on par with the other collection system's sewer rates in Marin County.
<ul style="list-style-type: none"> <li>• CWEA certification</li> </ul>	Decrease	The Discharger is credited with \$14,400 for maintaining all 19 of its collection system staff with CWEA certification. The basic standard of CWEA certification is that all certificate holders have, and continue to perform at a level of basic competence that enables them to perform the essential duties of their job safely, effectively, without close supervision and without further training.

Category	Adjust- ment Factor	Reason
• Staff costs	Increase	498 hours of staff time at \$150 per hour for a total cost of \$74,700.

**STATE WATER RESOURCES CONTROL BOARD  
ORDER NO. 2006-0003-DWQ**

**STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS  
FOR  
SANITARY SEWER SYSTEMS**

The State Water Resources Control Board, hereinafter referred to as "State Water Board", finds that:

1. All federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California are required to comply with the terms of this Order. Such entities are hereinafter referred to as "Enrollees".
2. Sanitary sewer overflows (SSOs) are overflows from sanitary sewer systems of domestic wastewater, as well as industrial and commercial wastewater, depending on the pattern of land uses in the area served by the sanitary sewer system. SSOs often contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen-demanding organic compounds, oil and grease and other pollutants. SSOs may cause a public nuisance, particularly when raw untreated wastewater is discharged to areas with high public exposure, such as streets or surface waters used for drinking, fishing, or body contact recreation. SSOs may pollute surface or ground waters, threaten public health, adversely affect aquatic life, and impair the recreational use and aesthetic enjoyment of surface waters.
3. Sanitary sewer systems experience periodic failures resulting in discharges that may affect waters of the state. There are many factors (including factors related to geology, design, construction methods and materials, age of the system, population growth, and system operation and maintenance), which affect the likelihood of an SSO. A proactive approach that requires Enrollees to ensure a system-wide operation, maintenance, and management plan is in place will reduce the number and frequency of SSOs within the state. This approach will in turn decrease the risk to human health and the environment caused by SSOs.
4. Major causes of SSOs include: grease blockages, root blockages, sewer line flood damage, manhole structure failures, vandalism, pump station mechanical failures, power outages, excessive storm or ground water inflow/infiltration, debris blockages, sanitary sewer system age and construction material failures, lack of proper operation and maintenance, insufficient capacity and contractor-caused damages. Many SSOs are preventable with adequate and appropriate facilities, source control measures and operation and maintenance of the sanitary sewer system.

### **SEWER SYSTEM MANAGEMENT PLANS**

5. To facilitate proper funding and management of sanitary sewer systems, each Enrollee must develop and implement a system-specific Sewer System Management Plan (SSMP). To be effective, SSMPs must include provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost benefit analysis. Additionally, an SSMP must contain a spill response plan that establishes standard procedures for immediate response to an SSO in a manner designed to minimize water quality impacts and potential nuisance conditions.
6. Many local public agencies in California have already developed SSMPs and implemented measures to reduce SSOs. These entities can build upon their existing efforts to establish a comprehensive SSMP consistent with this Order. Others, however, still require technical assistance and, in some cases, funding to improve sanitary sewer system operation and maintenance in order to reduce SSOs.
7. SSMP certification by technically qualified and experienced persons can provide a useful and cost-effective means for ensuring that SSMPs are developed and implemented appropriately.
8. It is the State Water Board's intent to gather additional information on the causes and sources of SSOs to augment existing information and to determine the full extent of SSOs and consequent public health and/or environmental impacts occurring in the State.
9. Both uniform SSO reporting and a centralized statewide electronic database are needed to collect information to allow the State Water Board and Regional Water Quality Control Boards (Regional Water Boards) to effectively analyze the extent of SSOs statewide and their potential impacts on beneficial uses and public health. The monitoring and reporting program required by this Order and the attached Monitoring and Reporting Program No. 2006-0003-DWQ, are necessary to assure compliance with these waste discharge requirements (WDRs).
10. Information regarding SSOs must be provided to Regional Water Boards and other regulatory agencies in a timely manner and be made available to the public in a complete, concise, and timely fashion.
11. Some Regional Water Boards have issued WDRs or WDRs that serve as National Pollution Discharge Elimination System (NPDES) permits to sanitary sewer system owners/operators within their jurisdictions. This Order establishes minimum requirements to prevent SSOs. Although it is the State Water Board's intent that this Order be the primary regulatory mechanism for sanitary sewer systems statewide, Regional Water Boards may issue more stringent or more

prescriptive WDRs for sanitary sewer systems. Upon issuance or reissuance of a Regional Water Board's WDRs for a system subject to this Order, the Regional Water Board shall coordinate its requirements with stated requirements within this Order, to identify requirements that are more stringent, to remove requirements that are less stringent than this Order, and to provide consistency in reporting.

## REGULATORY CONSIDERATIONS

12. California Water Code section 13263 provides that the State Water Board may prescribe general WDRs for a category of discharges if the State Water Board finds or determines that:

- The discharges are produced by the same or similar operations;
- The discharges involve the same or similar types of waste;
- The discharges require the same or similar treatment standards; and
- The discharges are more appropriately regulated under general discharge requirements than individual discharge requirements.

This Order establishes requirements for a class of operations, facilities, and discharges that are similar throughout the state.

13. The issuance of general WDRs to the Enrollees will:

- a) Reduce the administrative burden of issuing individual WDRs to each Enrollee;
- b) Provide for a unified statewide approach for the reporting and database tracking of SSOs;
- c) Establish consistent and uniform requirements for SSMP development and implementation;
- d) Provide statewide consistency in reporting; and
- e) Facilitate consistent enforcement for violations.

14. The beneficial uses of surface waters that can be impaired by SSOs include, but are not limited to, aquatic life, drinking water supply, body contact and non-contact recreation, and aesthetics. The beneficial uses of ground water that can be impaired include, but are not limited to, drinking water and agricultural supply. Surface and ground waters throughout the state support these uses to varying degrees.

15. The implementation of requirements set forth in this Order will ensure the reasonable protection of past, present, and probable future beneficial uses of water and the prevention of nuisance. The requirements implement the water quality control plans (Basin Plans) for each region and take into account the environmental characteristics of hydrographic units within the state. Additionally, the State Water Board has considered water quality conditions that could reasonably be achieved through the coordinated control of all factors that affect

water quality in the area, costs associated with compliance with these requirements, the need for developing housing within California, and the need to develop and use recycled water.

16. The Federal Clean Water Act largely prohibits any discharge of pollutants from a point source to waters of the United States except as authorized under an NPDES permit. In general, any point source discharge of sewage effluent to waters of the United States must comply with technology-based, secondary treatment standards, at a minimum, and any more stringent requirements necessary to meet applicable water quality standards and other requirements. Hence, the unpermitted discharge of wastewater from a sanitary sewer system to waters of the United States is illegal under the Clean Water Act. In addition, many Basin Plans adopted by the Regional Water Boards contain discharge prohibitions that apply to the discharge of untreated or partially treated wastewater. Finally, the California Water Code generally prohibits the discharge of waste to land prior to the filing of any required report of waste discharge and the subsequent issuance of either WDRs or a waiver of WDRs.
17. California Water Code section 13263 requires a water board to, after any necessary hearing, prescribe requirements as to the nature of any proposed discharge, existing discharge, or material change in an existing discharge. The requirements shall, among other things, take into consideration the need to prevent nuisance.
18. California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:
  - a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
  - b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
  - c. Occurs during, or as a result of, the treatment or disposal of wastes.
19. This Order is consistent with State Water Board Resolution No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California) in that the Order imposes conditions to prevent impacts to water quality, does not allow the degradation of water quality, will not unreasonably affect beneficial uses of water, and will not result in water quality less than prescribed in State Water Board or Regional Water Board plans and policies.
20. The action to adopt this General Order is exempt from the California Environmental Quality Act (Public Resources Code §21000 et seq.) because it is an action taken by a regulatory agency to assure the protection of the environment and the regulatory process involves procedures for protection of the environment. (Cal. Code Regs., tit. 14, §15308). In addition, the action to adopt

this Order is exempt from CEQA pursuant to Cal.Code Regs., title 14, §15301 to the extent that it applies to existing sanitary sewer collection systems that constitute “existing facilities” as that term is used in Section 15301, and §15302, to the extent that it results in the repair or replacement of existing systems involving negligible or no expansion of capacity.

21. The Fact Sheet, which is incorporated by reference in the Order, contains supplemental information that was also considered in establishing these requirements.
22. The State Water Board has notified all affected public agencies and all known interested persons of the intent to prescribe general WDRs that require Enrollees to develop SSMPs and to report all SSOs.
23. The State Water Board conducted a public hearing on February 8, 2006, to receive oral and written comments on the draft order. The State Water Board received and considered, at its May 2, 2006, meeting, additional public comments on substantial changes made to the proposed general WDRs following the February 8, 2006, public hearing. The State Water Board has considered all comments pertaining to the proposed general WDRs.

**IT IS HEREBY ORDERED**, that pursuant to California Water Code section 13263, the Enrollees, their agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted hereunder, shall comply with the following:

**A. DEFINITIONS**

1. **Sanitary sewer overflow (SSO)** - Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include:
  - (i) Overflows or releases of untreated or partially treated wastewater that reach waters of the United States;
  - (ii) Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and
  - (iii) Wastewater backups into buildings and on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.
2. **Sanitary sewer system** – Any system of pipes, pump stations, sewer lines, or other conveyances, upstream of a wastewater treatment plant headworks used to collect and convey wastewater to the publicly owned treatment facility. Temporary storage and conveyance facilities (such as vaults, temporary piping, construction trenches, wet wells, impoundments, tanks, etc.) are considered to be part of the sanitary sewer system, and discharges into these temporary storage facilities are not considered to be SSOs.

For purposes of this Order, sanitary sewer systems include only those systems owned by public agencies that are comprised of more than one mile of pipes or sewer lines.

3. **Enrollee** - A federal or state agency, municipality, county, district, and other public entity that owns or operates a sanitary sewer system, as defined in the general WDRs, and that has submitted a complete and approved application for coverage under this Order.
4. **SSO Reporting System** – Online spill reporting system that is hosted, controlled, and maintained by the State Water Board. The web address for this site is <http://ciwqs.waterboards.ca.gov>. This online database is maintained on a secure site and is controlled by unique usernames and passwords.
5. **Untreated or partially treated wastewater** – Any volume of waste discharged from the sanitary sewer system upstream of a wastewater treatment plant headworks.
6. **Satellite collection system** – The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility to which the sanitary sewer system is tributary.
7. **Nuisance** - California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:
  - a. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
  - b. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
  - c. Occurs during, or as a result of, the treatment or disposal of wastes.

## **B. APPLICATION REQUIREMENTS**

1. **Deadlines for Application** – All public agencies that currently own or operate sanitary sewer systems within the State of California must apply for coverage under the general WDRs within six (6) months of the date of adoption of the general WDRs. Additionally, public agencies that acquire or assume responsibility for operating sanitary sewer systems after the date of adoption of this Order must apply for coverage under the general WDRs at least three (3) months prior to operation of those facilities.
2. **Applications under the general WDRs** – In order to apply for coverage pursuant to the general WDRs, a legally authorized representative for each agency must submit a complete application package. Within sixty (60) days of adoption of the general WDRs, State Water Board staff will send specific instructions on how to

apply for coverage under the general WDRs to all known public agencies that own sanitary sewer systems. Agencies that do not receive notice may obtain applications and instructions online on the Water Board's website.

3. Coverage under the general WDRs – Permit coverage will be in effect once a complete application package has been submitted and approved by the State Water Board's Division of Water Quality.

### **C. PROHIBITIONS**

1. Any SSO that results in a discharge of untreated or partially treated wastewater to waters of the United States is prohibited.
2. Any SSO that results in a discharge of untreated or partially treated wastewater that creates a nuisance as defined in California Water Code Section 13050(m) is prohibited.

### **D. PROVISIONS**

1. The Enrollee must comply with all conditions of this Order. Any noncompliance with this Order constitutes a violation of the California Water Code and is grounds for enforcement action.
2. It is the intent of the State Water Board that sanitary sewer systems be regulated in a manner consistent with the general WDRs. Nothing in the general WDRs shall be:
  - (i) Interpreted or applied in a manner inconsistent with the Federal Clean Water Act, or supersede a more specific or more stringent state or federal requirement in an existing permit, regulation, or administrative/judicial order or Consent Decree;
  - (ii) Interpreted or applied to authorize an SSO that is illegal under either the Clean Water Act, an applicable Basin Plan prohibition or water quality standard, or the California Water Code;
  - (iii) Interpreted or applied to prohibit a Regional Water Board from issuing an individual NPDES permit or WDR, superseding this general WDR, for a sanitary sewer system, authorized under the Clean Water Act or California Water Code; or
  - (iv) Interpreted or applied to supersede any more specific or more stringent WDRs or enforcement order issued by a Regional Water Board.
3. The Enrollee shall take all feasible steps to eliminate SSOs. In the event that an SSO does occur, the Enrollee shall take all feasible steps to contain and mitigate the impacts of an SSO.
4. In the event of an SSO, the Enrollee shall take all feasible steps to prevent untreated or partially treated wastewater from discharging from storm drains into

flood control channels or waters of the United States by blocking the storm drainage system and by removing the wastewater from the storm drains.

5. All SSOs must be reported in accordance with Section G of the general WDRs.
6. In any enforcement action, the State and/or Regional Water Boards will consider the appropriate factors under the duly adopted State Water Board Enforcement Policy. And, consistent with the Enforcement Policy, the State and/or Regional Water Boards must consider the Enrollee's efforts to contain, control, and mitigate SSOs when considering the California Water Code Section 13327 factors. In assessing these factors, the State and/or Regional Water Boards will also consider whether:
  - (i) The Enrollee has complied with the requirements of this Order, including requirements for reporting and developing and implementing a SSMP;
  - (ii) The Enrollee can identify the cause or likely cause of the discharge event;
  - (iii) There were no feasible alternatives to the discharge, such as temporary storage or retention of untreated wastewater, reduction of inflow and infiltration, use of adequate backup equipment, collecting and hauling of untreated wastewater to a treatment facility, or an increase in the capacity of the system as necessary to contain the design storm event identified in the SSMP. It is inappropriate to consider the lack of feasible alternatives, if the Enrollee does not implement a periodic or continuing process to identify and correct problems.
  - (iv) The discharge was exceptional, unintentional, temporary, and caused by factors beyond the reasonable control of the Enrollee;
  - (v) The discharge could have been prevented by the exercise of reasonable control described in a certified SSMP for:
    - Proper management, operation and maintenance;
    - Adequate treatment facilities, sanitary sewer system facilities, and/or components with an appropriate design capacity, to reasonably prevent SSOs (e.g., adequately enlarging treatment or collection facilities to accommodate growth, infiltration and inflow (I/I), etc.);
    - Preventive maintenance (including cleaning and fats, oils, and grease (FOG) control);
    - Installation of adequate backup equipment; and
    - Inflow and infiltration prevention and control to the extent practicable.
  - (vi) The sanitary sewer system design capacity is appropriate to reasonably prevent SSOs.

- (vii) The Enrollee took all reasonable steps to stop and mitigate the impact of the discharge as soon as possible.
7. When a sanitary sewer overflow occurs, the Enrollee shall take all feasible steps and necessary remedial actions to 1) control or limit the volume of untreated or partially treated wastewater discharged, 2) terminate the discharge, and 3) recover as much of the wastewater discharged as possible for proper disposal, including any wash down water.

The Enrollee shall implement all remedial actions to the extent they may be applicable to the discharge and not inconsistent with an emergency response plan, including the following:

- (i) Interception and rerouting of untreated or partially treated wastewater flows around the wastewater line failure;
  - (ii) Vacuum truck recovery of sanitary sewer overflows and wash down water;
  - (iii) Cleanup of debris at the overflow site;
  - (iv) System modifications to prevent another SSO at the same location;
  - (v) Adequate sampling to determine the nature and impact of the release; and
  - (vi) Adequate public notification to protect the public from exposure to the SSO.
8. The Enrollee shall properly, manage, operate, and maintain all parts of the sanitary sewer system owned or operated by the Enrollee, and shall ensure that the system operators (including employees, contractors, or other agents) are adequately trained and possess adequate knowledge, skills, and abilities.
9. The Enrollee shall allocate adequate resources for the operation, maintenance, and repair of its sanitary sewer system, by establishing a proper rate structure, accounting mechanisms, and auditing procedures to ensure an adequate measure of revenues and expenditures. These procedures must be in compliance with applicable laws and regulations and comply with generally acceptable accounting practices.
10. The Enrollee shall provide adequate capacity to convey base flows and peak flows, including flows related to wet weather events. Capacity shall meet or exceed the design criteria as defined in the Enrollee's System Evaluation and Capacity Assurance Plan for all parts of the sanitary sewer system owned or operated by the Enrollee.
11. The Enrollee shall develop and implement a written Sewer System Management Plan (SSMP) and make it available to the State and/or Regional Water Board upon request. A copy of this document must be publicly available at the Enrollee's office and/or available on the Internet. This SSMP must be approved by the Enrollee's governing board at a public meeting.

12. In accordance with the California Business and Professions Code sections 6735, 7835, and 7835.1, all engineering and geologic evaluations and judgments shall be performed by or under the direction of registered professionals competent and proficient in the fields pertinent to the required activities. Specific elements of the SSMP that require professional evaluation and judgments shall be prepared by or under the direction of appropriately qualified professionals, and shall bear the professional(s)' signature and stamp.
13. The mandatory elements of the SSMP are specified below. However, if the Enrollee believes that any element of this section is not appropriate or applicable to the Enrollee's sanitary sewer system, the SSMP program does not need to address that element. The Enrollee must justify why that element is not applicable. The SSMP must be approved by the deadlines listed in the SSMP Time Schedule below.

### **Sewer System Management Plan (SSMP)**

- (i) **Goal:** 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.
- (ii) **Organization:** The SSMP must identify:
  - (a) The name of the responsible or authorized representative as described in Section J of this Order.
  - (b) The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and
  - (c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (OES)).
- (iii) **Legal Authority:** 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.
- (iv) **Operation and Maintenance Program.** The SSMP must include those elements listed below that are appropriate and applicable to the Enrollee's system:
- (a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities;
  - (b) Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;
  - (c) Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;
  - (d) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and

- (e) Provide equipment and replacement part inventories, including identification of critical replacement parts.
- (v) **Design and Performance Provisions:**
  - (a) Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and
  - (b) Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.
- (vi) **Overflow Emergency Response Plan** - Each Enrollee shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:
  - (a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;
  - (b) A program to ensure an appropriate response to all overflows;
  - (c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, Regional Water Boards, water suppliers, etc.) of all SSOs that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDRs or NPDES permit requirements. The SSMP should identify the officials who will receive immediate notification;
  - (d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;
  - (e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and
  - (f) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

- (vii) **FOG Control Program:** Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification for why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall include the following as appropriate:
- (a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;
  - (b) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;
  - (c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;
  - (d) Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;
  - (e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;
  - (f) An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and
  - (g) Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (f) above.
- (viii) **System Evaluation and Capacity Assurance Plan:** The Enrollee shall prepare and implement a capital improvement plan (CIP) that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. At a minimum, the plan must include:
- (a) **Evaluation:** Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs

that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;

- (b) **Design Criteria:** Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria; and
  - (c) **Capacity Enhancement Measures:** The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.
  - (d) **Schedule:** The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements as described in Section D. 14.
- (ix) **Monitoring, Measurement, and Program Modifications:** The Enrollee shall:
- (a) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;
  - (b) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;
  - (c) Assess the success of the preventative maintenance program;
  - (d) Update program elements, as appropriate, based on monitoring or performance evaluations; and
  - (e) Identify and illustrate SSO trends, including: frequency, location, and volume.
- (x) **SSMP Program Audits** - As part of the SSMP, the Enrollee shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the

Enrollee's compliance with the SSMP requirements identified in this subsection (D.13), including identification of any deficiencies in the SSMP and steps to correct them.

- (xi) **Communication Program** – The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.

The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.

14. 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 WDRs within the time frames identified in the time schedule provided in subsection D.15, below.

In order to complete this certification, the Enrollee's authorized representative must complete the certification portion in the Online SSO Database Questionnaire by checking the appropriate milestone box, printing and signing the automated form, and sending the form to:

State Water Resources Control Board  
Division of Water Quality  
Attn: SSO Program Manager  
P.O. Box 100  
Sacramento, CA 95812

The SSMP must be updated every five (5) years, and must include any significant program changes. Re-certification by the governing board of the Enrollee is required in accordance with D.14 when significant updates to the SSMP are made. To complete the re-certification process, the Enrollee shall enter the data in the Online SSO Database and mail the form to the State Water Board, as described above.

15. The Enrollee shall comply with these requirements according to the following schedule. This time schedule does not supersede existing requirements or time schedules associated with other permits or regulatory requirements.

**Sewer System Management Plan Time Schedule**

<u>Task and Associated Section</u>	<b>Completion Date</b>			
	Population > 100,000	Population between 100,000 and 10,000	Population between 10,000 and 2,500	Population < 2,500
Application for Permit Coverage <b>Section C</b>	6 months after WDRs Adoption			
Reporting Program <b>Section G</b>	6 months after WDRs Adoption <sup>1</sup>			
SSMP Development Plan and Schedule <b>No specific Section</b>	9 months after WDRs Adoption <sup>2</sup>	12 months after WDRs Adoption <sup>2</sup>	15 months after WDRs Adoption <sup>2</sup>	18 months after WDRs Adoption <sup>2</sup>
Goals and Organization Structure <b>Section D 13 (i) &amp; (ii)</b>	12 months after WDRs Adoption <sup>2</sup>		18 months after WDRs Adoption <sup>2</sup>	
Overflow Emergency Response Program <b>Section D 13 (vi)</b>	24 months after WDRs Adoption <sup>2</sup>	30 months after WDRs Adoption <sup>2</sup>	36 months after WDRs Adoption <sup>2</sup>	39 months after WDRs Adoption <sup>2</sup>
Legal Authority <b>Section D 13 (iii)</b>				
Operation and Maintenance Program <b>Section D 13 (iv)</b>				
Grease Control Program <b>Section D 13 (vii)</b>	36 months after WDRs Adoption	39 months after WDRs Adoption	48 months after WDRs Adoption	51 months after WDRs Adoption
Design and Performance <b>Section D 13 (v)</b>				
System Evaluation and Capacity Assurance Plan <b>Section D 13 (viii)</b>				
Final SSMP, incorporating all of the SSMP requirements <b>Section D 13</b>				

1. In the event that by July 1, 2006 the Executive Director is able to execute a memorandum of agreement (MOA) with the California Water Environment Association (CWEA) or discharger representatives outlining a strategy and time schedule for CWEA or another entity to provide statewide training on the adopted monitoring program, SSO database electronic reporting, and SSMP development, consistent with this Order, then the schedule of Reporting Program Section G shall be replaced with the following schedule:

Reporting Program <b>Section G</b>	
Regional Boards 4, 8, and 9	8 months after WDRs Adoption
Regional Boards 1, 2, and 3	12 months after WDRs Adoption
Regional Boards 5, 6, and 7	16 months after WDRs Adoption

If this MOU is not executed by July 1, 2006, the reporting program time schedule will remain six (6) months for all regions and agency size categories.

2. In the event that the Executive Director executes the MOA identified in note 1 by July 1, 2006, then the deadline for this task shall be extended by six (6) months. The time schedule identified in the MOA must be consistent with the extended time schedule provided by this note. If the MOA is not executed by July 1, 2006, the six (6) month time extension will not be granted.

**E. WDRs and SSMP AVAILABILITY**

1. A copy of the general WDRs and the certified SSMP shall be maintained at appropriate locations (such as the Enrollee’s offices, facilities, and/or Internet homepage) and shall be available to sanitary sewer system operating and maintenance personnel at all times.

**F. ENTRY AND INSPECTION**

1. The Enrollee shall allow the State or Regional Water Boards or their authorized representative, upon presentation of credentials and other documents as may be required by law, to:
  - a. Enter upon the Enrollee’s premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;

- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
- d. Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the California Water Code, any substances or parameters at any location.

## **G. GENERAL MONITORING AND REPORTING REQUIREMENTS**

1. The Enrollee shall furnish to the State or Regional Water Board, within a reasonable time, any information that the State or Regional Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Enrollee shall also furnish to the Executive Director of the State Water Board or Executive Officer of the applicable Regional Water Board, upon request, copies of records required to be kept by this Order.
2. The Enrollee shall comply with the attached Monitoring and Reporting Program No. 2006-0003 and future revisions thereto, as specified by the Executive Director. Monitoring results shall be reported at the intervals specified in Monitoring and Reporting Program No. 2006-0003. Unless superseded by a specific enforcement Order for a specific Enrollee, these reporting requirements are intended to replace other mandatory routine written reports associated with SSOs.
3. 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 30 days of receiving an account and prior to recording spills into the SSO Database, all Enrollees must complete the "Collection System Questionnaire", which collects pertinent information regarding a Enrollee's collection system. The "Collection System Questionnaire" must be updated at least every 12 months.
4. Pursuant to Health and Safety Code section 5411.5, any person who, without regard to intent or negligence, causes or permits any untreated wastewater or other waste to be discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State, as soon as that person has knowledge of the discharge, shall immediately notify the local health officer of the discharge. Discharges of untreated or partially treated wastewater to storm drains and drainage channels, whether man-made or natural or concrete-lined, shall be reported as required above.

Any SSO greater than 1,000 gallons discharged in or on any waters of the State, or discharged in or deposited where it is, or probably will be, discharged in or on any surface waters of the State shall also be reported to the Office of Emergency Services pursuant to California Water Code section 13271.

#### **H. CHANGE IN OWNERSHIP**

1. This Order is not transferable to any person or party, except after notice to the Executive Director. The Enrollee shall submit this notice in writing at least 30 days in advance of any proposed transfer. The notice must include a written agreement between the existing and new Enrollee containing a specific date for the transfer of this Order's responsibility and coverage between the existing Enrollee and the new Enrollee. This agreement shall include an acknowledgement that the existing Enrollee is liable for violations up to the transfer date and that the new Enrollee is liable from the transfer date forward.

#### **I. INCOMPLETE REPORTS**

1. If an Enrollee becomes aware that it failed to submit any relevant facts in any report required under this Order, the Enrollee shall promptly submit such facts or information by formally amending the report in the Online SSO Database.

#### **J. REPORT DECLARATION**

1. All applications, reports, or information shall be signed and certified as follows:
  - (i) All reports required by this Order and other information required by the State or Regional Water Board shall be signed and certified by a person designated, for a municipality, state, federal or other public agency, as either a principal executive officer or ranking elected official, or by a duly authorized representative of that person, as described in paragraph (ii) of this provision. (For purposes of electronic reporting, an electronic signature and accompanying certification, which is in compliance with the Online SSO database procedures, meet this certification requirement.)
  - (ii) An individual is a duly authorized representative only if:
    - (a) The authorization is made in writing by a person described in paragraph (i) of this provision; and
    - (b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity.

#### **K. CIVIL MONETARY REMEDIES FOR DISCHARGE VIOLATIONS**

1. The California Water Code provides various enforcement options, including civil monetary remedies, for violations of this Order.
2. The California Water Code also provides that any person failing or refusing to furnish technical or monitoring program reports, as required under this Order, or

falsifying any information provided in the technical or monitoring reports is subject to civil monetary penalties.

**L. SEVERABILITY**

1. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.
2. This order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the Enrollee from liability under federal, state or local laws, nor create a vested right for the Enrollee to continue the waste discharge.

**CERTIFICATION**

The undersigned Clerk to the State Water Board does hereby certify that the foregoing is a full, true, and correct copy of general WDRs duly and regularly adopted at a meeting of the State Water Resources Control Board held on May 2, 2006.

AYE: Tam M. Doduc  
Gerald D. Secundy

NO: Arthur G. Baggett

ABSENT: None

ABSTAIN: None



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Song Her  
Clerk to the Board

## STATE WATER RESOURCES CONTROL BOARD

### MONITORING AND REPORTING PROGRAM NO. 2006-0003-DWQ 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.

#### 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.
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 – 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 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 to 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.
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.

**CERTIFICATION**

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Board held on May 2, 2006.



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Song Her  
Clerk to the Board

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:

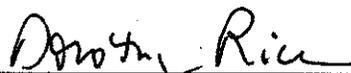
1. The State Water Board is authorized to prescribe statewide general waste discharge requirements for categories of discharges that involve the same or similar operations and the same or similar types of waste pursuant to Water Code 13263, subdivision (i).
2. The State Water Board on May 2, 2006, adopted 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

## ATTACHMENT A

### STATE WATER RESOURCES CONTROL BOARD MONITORING AND REPORTING PROGRAM NO. 2006-0003-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.

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

U.S. Department of Commerce

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State &amp; County QuickFacts

## San Anselmo (town), California

People QuickFacts	San Anselmo	California
Population, 2011 estimate	12,468	37,683,933
Population, 2010 (April 1) estimates base	12,336	37,253,956
Population, percent change, April 1, 2010 to July 1, 2011	1.1%	1.2%
Population, 2010	12,336	37,253,956
Persons under 5 years, percent, 2010	6.0%	6.8%
Persons under 18 years, percent, 2010	23.3%	25.0%
Persons 65 years and over, percent, 2010	13.5%	11.4%
Female persons, percent, 2010	53.3%	50.3%
White persons, percent, 2010 (a)	90.3%	57.6%
Black persons, percent, 2010 (a)	0.9%	6.2%
American Indian and Alaska Native persons, percent, 2010 (a)	0.3%	1.0%
Asian persons, percent, 2010 (a)	3.5%	13.0%
Native Hawaiian and Other Pacific Islander, percent, 2010 (a)	0.2%	0.4%
Persons reporting two or more races, percent, 2010	3.5%	4.9%
Persons of Hispanic or Latino origin, percent, 2010 (b)	5.8%	37.6%
White persons not Hispanic, percent, 2010	86.4%	40.1%
Living in same house 1 year & over, percent, 2007-2011	86.8%	84.2%
Foreign born persons, percent, 2007-2011	11.0%	27.2%
Language other than English spoken at home, percent age 5+, 2007-2011	11.5%	43.2%
High school graduate or higher, percent of persons age 25+, 2007-2011	96.0%	80.8%
Bachelor's degree or higher, percent of persons age 25+, 2007-2011	60.5%	30.2%
Veterans, 2007-2011	877	1,997,566
Mean travel time to work (minutes), workers age 16+, 2007-2011	32.0	27.0
Housing units, 2010	5,538	13,680,081
Homeownership rate, 2007-2011	69.0%	56.7%
Housing units in multi-unit structures, percent, 2007-2011	17.6%	30.8%
Median value of owner-occupied housing units, 2007-2011	\$851,100	\$421,600
Households, 2007-2011	5,117	12,433,172
Persons per household, 2007-2011	2.35	2.91
Per capita money income in the past 12 months (2011 dollars), 2007-2011	\$53,033	\$29,634
Median household income, 2007-2011	\$96,639	\$61,632
Persons below poverty level, percent, 2007-2011	7.4%	14.4%
<b>Business QuickFacts</b>	<b>San Anselmo</b>	<b>California</b>
Total number of firms, 2007	2,298	3,425,510
Black-owned firms, percent, 2007	F	4.0%
American Indian- and Alaska Native-owned firms, percent, 2007	F	1.3%
Asian-owned firms, percent, 2007	F	14.9%
Native Hawaiian and Other Pacific Islander-owned firms, percent, 2007	F	0.3%
Hispanic-owned firms, percent, 2007	S	16.5%
Women-owned firms, percent, 2007	29.4%	30.3%
Manufacturers shipments, 2007 (\$1000)	NA	491,372,092
Merchant wholesaler sales, 2007 (\$1000)	12,689	598,456,486
Retail sales, 2007 (\$1000)	118,045	455,032,270
Retail sales per capita, 2007	\$9,936	\$12,561
Accommodation and food services sales, 2007 (\$1000)	27,403	80,852,787

Geography QuickFacts	San Anselmo	California
Land area in square miles, 2010	2.68	155,779.22
Persons per square mile, 2010	4,608.1	239.1
FIPS Code	64434	06
Counties		

(a) Includes persons reporting only one race.  
 (b) Hispanics may be of any race, so also are included in applicable race categories.

D: Suppressed to avoid disclosure of confidential information  
 F: Fewer than 100 firms  
 FN: Footnote on this item for this area in place of data  
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 X: Not applicable  
 Z: Value greater than zero but less than half unit of measure shown

Source U.S. Census Bureau: State and County QuickFacts. Data derived from Population Estimates, American Community Survey, Census of Population and Housing, County Business Patterns, Economic Census, Survey of Business Owners, Building Permits, Consolidated Federal Funds Report, Census of Governments  
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State &amp; County QuickFacts

## Larkspur (city), California

People QuickFacts	Larkspur	California
Population, 2011 estimate	12,054	37,683,933
Population, 2010 (April 1) estimates base	11,926	37,253,956
Population, percent change, April 1, 2010 to July 1, 2011	1.1%	1.2%
Population, 2010	11,926	37,253,956
Persons under 5 years, percent, 2010	4.6%	6.8%
Persons under 18 years, percent, 2010	18.2%	25.0%
Persons 65 years and over, percent, 2010	21.5%	11.4%
Female persons, percent, 2010	55.0%	50.3%
White persons, percent, 2010 (a)	86.5%	57.6%
Black persons, percent, 2010 (a)	1.6%	6.2%
American Indian and Alaska Native persons, percent, 2010 (a)	0.2%	1.0%
Asian persons, percent, 2010 (a)	4.7%	13.0%
Native Hawaiian and Other Pacific Islander, percent, 2010 (a)	0.1%	0.4%
Persons reporting two or more races, percent, 2010	4.1%	4.9%
Persons of Hispanic or Latino origin, percent, 2010 (b)	7.7%	37.6%
White persons not Hispanic, percent, 2010	82.1%	40.1%
Living in same house 1 year & over, percent, 2007-2011	81.0%	84.2%
Foreign born persons, percent, 2007-2011	20.1%	27.2%
Language other than English spoken at home, percent age 5+, 2007-2011	22.0%	43.2%
High school graduate or higher, percent of persons age 25+, 2007-2011	95.4%	80.8%
Bachelor's degree or higher, percent of persons age 25+, 2007-2011	59.9%	30.2%
Veterans, 2007-2011	865	1,997,566
Mean travel time to work (minutes), workers age 16+, 2007-2011	25.6	27.0
Housing units, 2010	6,376	13,680,081
Homeownership rate, 2007-2011	52.1%	56.7%
Housing units in multi-unit structures, percent, 2007-2011	44.9%	30.8%
Median value of owner-occupied housing units, 2007-2011	\$1,000,001	\$421,600
Households, 2007-2011	5,920	12,433,172
Persons per household, 2007-2011	1.98	2.91
Per capita money income in the past 12 months (2011 dollars), 2007-2011	\$64,646	\$29,634
Median household income, 2007-2011	\$86,046	\$61,632
Persons below poverty level, percent, 2007-2011	4.7%	14.4%
<b>Business QuickFacts</b>	<b>Larkspur</b>	<b>California</b>
Total number of firms, 2007	2,155	3,425,510
Black-owned firms, percent, 2007	F	4.0%
American Indian- and Alaska Native-owned firms, percent, 2007	F	1.3%
Asian-owned firms, percent, 2007	S	14.9%
Native Hawaiian and Other Pacific Islander-owned firms, percent, 2007	F	0.3%
Hispanic-owned firms, percent, 2007	S	16.5%
Women-owned firms, percent, 2007	42.5%	30.3%
Manufacturers shipments, 2007 (\$1000)	NA	491,372,092
Merchant wholesaler sales, 2007 (\$1000)	163,635	598,456,486
Retail sales, 2007 (\$1000)	154,403	455,032,270
Retail sales per capita, 2007	\$13,320	\$12,561
Accommodation and food services sales, 2007 (\$1000)	53,930	80,852,787

<b>Geography QuickFacts</b>	<b>Larkspur</b>	<b>California</b>
Land area in square miles, 2010	3.03	155,779.22
Persons per square mile, 2010	3,939.9	239.1
FIPS Code	40438	06
Counties		

(a) Includes persons reporting only one race.  
(b) Hispanics may be of any race, so also are included in applicable race categories.

D: Suppressed to avoid disclosure of confidential information  
F: Fewer than 100 firms  
FN: Footnote on this item for this area in place of data  
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Source U.S. Census Bureau: State and County QuickFacts. Data derived from Population Estimates, American Community Survey, Census of Population and Housing, County Business Patterns, Economic Census, Survey of Business Owners, Building Permits, Consolidated Federal Funds Report, Census of Governments  
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State &amp; County QuickFacts

**Fairfax (town), California**

<b>People QuickFacts</b>	<b>Fairfax</b>	<b>California</b>
Population, 2011 estimate	7,520	37,683,933
Population, 2010 (April 1) estimates base	7,441	37,253,956
Population, percent change, April 1, 2010 to July 1, 2011	1.1%	1.2%
Population, 2010	7,441	37,253,956
Persons under 5 years, percent, 2010	4.5%	6.8%
Persons under 18 years, percent, 2010	19.3%	25.0%
Persons 65 years and over, percent, 2010	12.8%	11.4%
Female persons, percent, 2010	51.5%	50.3%
White persons, percent, 2010 (a)	88.9%	57.6%
Black persons, percent, 2010 (a)	1.5%	6.2%
American Indian and Alaska Native persons, percent, 2010 (a)	0.5%	1.0%
Asian persons, percent, 2010 (a)	2.7%	13.0%
Native Hawaiian and Other Pacific Islander, percent, 2010 (a)	0.1%	0.4%
Persons reporting two or more races, percent, 2010	4.0%	4.9%
Persons of Hispanic or Latino origin, percent, 2010 (b)	6.8%	37.6%
White persons not Hispanic, percent, 2010	85.4%	40.1%
Living in same house 1 year & over, percent, 2007-2011	83.5%	84.2%
Foreign born persons, percent, 2007-2011	9.1%	27.2%
Language other than English spoken at home, percent age 5+, 2007-2011	9.1%	43.2%
High school graduate or higher, percent of persons age 25+, 2007-2011	98.6%	80.8%
Bachelor's degree or higher, percent of persons age 25+, 2007-2011	61.4%	30.2%
Veterans, 2007-2011	324	1,997,566
Mean travel time to work (minutes), workers age 16+, 2007-2011	30.1	27.0
Housing units, 2010	3,585	13,680,081
Homeownership rate, 2007-2011	59.9%	56.7%
Housing units in multi-unit structures, percent, 2007-2011	24.9%	30.8%
Median value of owner-occupied housing units, 2007-2011	\$697,000	\$421,600
Households, 2007-2011	3,262	12,433,172
Persons per household, 2007-2011	2.26	2.91
Per capita money income in the past 12 months (2011 dollars), 2007-2011	\$49,486	\$29,634
Median household income, 2007-2011	\$97,992	\$61,632
Persons below poverty level, percent, 2007-2011	8.6%	14.4%
<b>Business QuickFacts</b>	<b>Fairfax</b>	<b>California</b>
Total number of firms, 2007	1,594	3,425,510
Black-owned firms, percent, 2007	F	4.0%
American Indian- and Alaska Native-owned firms, percent, 2007	F	1.3%
Asian-owned firms, percent, 2007	F	14.9%
Native Hawaiian and Other Pacific Islander-owned firms, percent, 2007	F	0.3%
Hispanic-owned firms, percent, 2007	F	16.5%
Women-owned firms, percent, 2007	30.0%	30.3%
Manufacturers shipments, 2007 (\$1000)	NA	491,372,092
Merchant wholesaler sales, 2007 (\$1000)	6,029	598,456,486
Retail sales, 2007 (\$1000)	44,049	455,032,270
Retail sales per capita, 2007	\$6,285	\$12,561
Accommodation and food services sales, 2007 (\$1000)	12,633	80,852,787

<b>Geography QuickFacts</b>	<b>Fairfax</b>	<b>California</b>
Land area in square miles, 2010	2.20	155,779.22
Persons per square mile, 2010	3,376.1	239.1
FIPS Code	23168	06
Counties		

(a) Includes persons reporting only one race.

(b) Hispanics may be of any race, so also are included in applicable race categories.

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Last Revised: Thursday, 14-Mar-2013 11:19:56 EDT



State & County QuickFacts

### Kentfield CDP, California

People QuickFacts	Kentfield CDP	California
Population, 2011 estimate	X	37,683,933
Population, 2010 (April 1) estimates base	X	37,253,956
Population, percent change, April 1, 2010 to July 1, 2011	X	1.2%
Population, 2010	6,485	37,253,956
Persons under 5 years, percent, 2010	5.2%	6.8%
Persons under 18 years, percent, 2010	25.6%	25.0%
Persons 65 years and over, percent, 2010	19.5%	11.4%
Female persons, percent, 2010	52.3%	50.3%
White persons, percent, 2010 (a)	91.1%	57.6%
Black persons, percent, 2010 (a)	0.5%	6.2%
American Indian and Alaska Native persons, percent, 2010 (a)	0.2%	1.0%
Asian persons, percent, 2010 (a)	3.5%	13.0%
Native Hawaiian and Other Pacific Islander, percent, 2010 (a)	0.1%	0.4%
Persons reporting two or more races, percent, 2010	3.2%	4.9%
Persons of Hispanic or Latino origin, percent, 2010 (b)	4.6%	37.6%
White persons not Hispanic, percent, 2010	88.3%	40.1%
Living in same house 1 year & over, percent, 2007-2011	92.5%	84.2%
Foreign born persons, percent, 2007-2011	7.7%	27.2%
Language other than English spoken at home, percent age 5+, 2007-2011	11.7%	43.2%
High school graduate or higher, percent of persons age 25+, 2007-2011	98.3%	80.8%
Bachelor's degree or higher, percent of persons age 25+, 2007-2011	73.0%	30.2%
Veterans, 2007-2011	503	1,997,566
Mean travel time to work (minutes), workers age 16+, 2007-2011	27.2	27.0
Housing units, 2010	2,758	13,680,081
Homeownership rate, 2007-2011	73.2%	56.7%
Housing units in multi-unit structures, percent, 2007-2011	16.1%	30.8%
Median value of owner-occupied housing units, 2007-2011	\$1,000,001	\$421,600
Households, 2007-2011	2,554	12,433,172
Persons per household, 2007-2011	2.59	2.91
Per capita money income in the past 12 months (2011 dollars), 2007-2011	\$91,579	\$29,634
Median household income, 2007-2011	\$154,265	\$61,632
Persons below poverty level, percent, 2007-2011	3.5%	14.4%
<b>Business QuickFacts</b>	<b>Kentfield CDP</b>	<b>California</b>
Total number of firms, 2007	1,100	3,425,510
Black-owned firms, percent, 2007	F	4.0%
American Indian- and Alaska Native-owned firms, percent, 2007	F	1.3%
Asian-owned firms, percent, 2007	S	14.9%
Native Hawaiian and Other Pacific Islander-owned firms, percent, 2007	F	0.3%
Hispanic-owned firms, percent, 2007	F	16.5%
Women-owned firms, percent, 2007	S	30.3%
Manufacturers shipments, 2007 (\$1000)	NA	491,372,092
Merchant wholesaler sales, 2007 (\$1000)	3,073	598,456,486
Retail sales, 2007 (\$1000)	37,694	455,032,270
Retail sales per capita, 2007	NA	\$12,561
Accommodation and food services sales, 2007 (\$1000)	4,136	80,852,787

<b>Geography QuickFacts</b>	<b>Kentfield CDP</b>	<b>California</b>
Land area in square miles, 2010	3.03	155,779.22
Persons per square mile, 2010	2,143.8	239.1
FIPS Code	38114	06
Counties		

(a) Includes persons reporting only one race.  
 (b) Hispanics may be of any race, so also are included in applicable race categories.

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## Ross Valley Sanitary District CIWQS Operational Report

## COLLECTION SYSTEM OPERATIONAL REPORT

Please see the [Glossary of Terms](#) for explanations of the search results column headings. [More information about the report is found at the bottom of this page.](#)

General Information  

Region	Place ID	Place Name	CS Category	Place Address	Place County
2	630976	San Dist #1 of Marin CS	Municipal	2960 Kerner San Rafael, CA, 94901	Marin



## Collection System Spill Summary

Operational Indices: San Dist #1 of Marin CS

Spill Rate Index (#spills/100mi/yr)						
	Category 1			Category 2		
	Mainlines	Laterals	Not Specified	Mainlines	Laterals	Not Specified
San Dist #1 of Marin CS	7.4	N/A	0.99	7.4	N/A	0.0
State - Municipal - Average	<a href="#">4.01</a>	N/A	<a href="#">3.63</a>	<a href="#">7.32</a>	N/A	<a href="#">3.22</a>
Region - Municipal - Average	<a href="#">7.21</a>	N/A	<a href="#">5.12</a>	<a href="#">11.36</a>	N/A	<a href="#">2.23</a>

Net Volume Spills Index (Net Vol in gallons/1000 Capita/yr)						
	Category 1			Category 2		
	Mainlines	Laterals	Not Specified	Mainlines	Laterals	Not Specified
San Dist #1 of Marin CS	3721.38	N/A	4.0	32.74	N/A	0.0
State - Municipal - Average	<a href="#">1889.46</a>	N/A	<a href="#">6333.16</a>	<a href="#">67.17</a>	N/A	<a href="#">32.97</a>
Region - Municipal - Average	<a href="#">1387.29</a>	N/A	<a href="#">836.98</a>	<a href="#">63.47</a>	N/A	<a href="#">5.2</a>

**Note:** Click on hyperlinks to get comparison charts for CS, Region, and State grouped by 'Miles Of Pipe'.

- (1) The number of Category 1 and 2 SSOs resulting from a failure in the Enrollee sewer system per 100 miles sewer system owned by the Enrollee per year.
- (2) Net Volume (volume spilled minus volume recovered) of SSOs, for which the reporting Enrollee is responsible, per capita (i.e. the population served by your agency's sanitary sewer system), per year.
- (3) Value calculated using miles of force mains and other pressure systems and miles of gravity sewers the agency is responsible for.
- (4) Value calculated using miles of laterals the agency is responsible for (Lower Only, Upper/Lower). For collection systems with no lateral responsibility a N/A is shown.
- (5) Value Calculated using total miles of collection system pipe the agency is responsible for.
- (6) Comparison made between similar collection systems type (e.g. municipal) and lateral responsibility for the entire state over the selected time period. Comparison indices are calculated for all similar collection systems and averaged for comparison.
- (7) Comparison made between similar collection systems type (e.g. Municipal) and lateral responsibility for collection systems in same region (e.g. Region 5S). Collection system indices are calculated for all similar collection systems and averaged for comparison. For airport, hospital, marinas, military, park, port, prison, school,

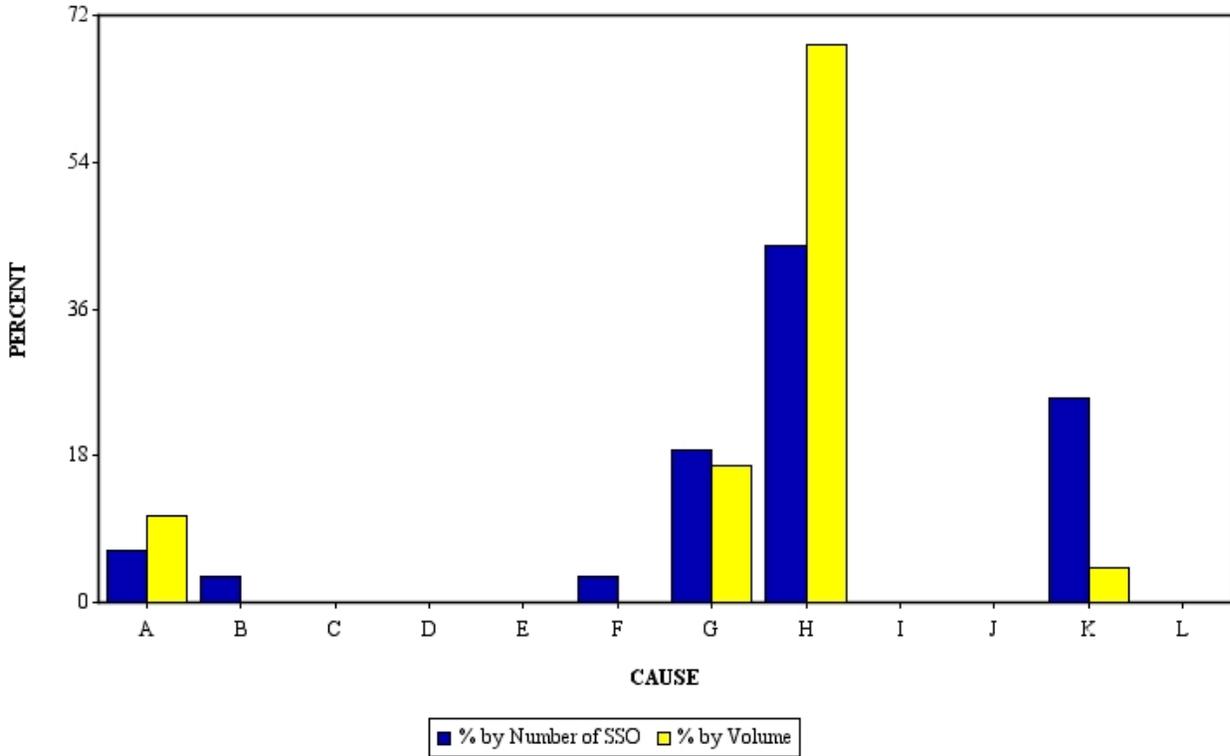
## Ross Valley Sanitary District CIWQS Operational Report

and other collection systems facilities, only state comparison is shown.  
 (8) For Criteria used and term definitions refer to the SSO Glossary of Terms.



### Percentage of total Number and Volume of SSOs by Spill Cause

Collection System: San Dist #1 of Marin CS



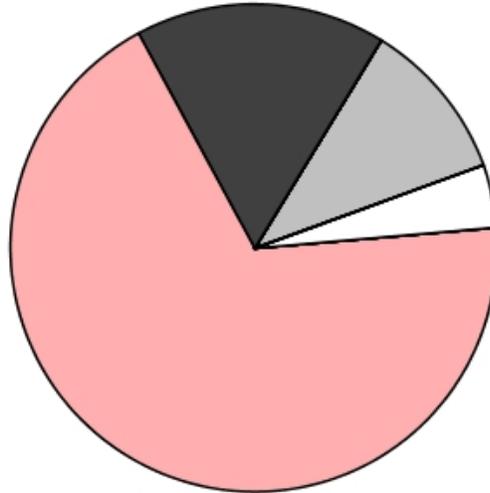
A=Debris-General,B=Debris-Rags,C=Debris,D=Flow exceeded capacity,E=Grease deposition(FOG),F=Operator error,G=Other,H=Pipe structural problem/failure,I=Pump station failure,J=Rainfall exceeded design,K=Root intrusion,L=Vandalism

### Percentage of total Volume of SSOs by Spill Cause



San Dist #1 of Marin CS

## Ross Valley Sanitary District CIWQS Operational Report



10% A 0% B 0% C 0% D 0% E 0% F 16% G 68% H 0% I 0% J 4% K 0% L

A=Debris-General,B=Debri-Rags,C=Debris,D=Flow exceeded capacity,E=Grease deposition (FOG),F=Operator error,G=Other,H=Pipe structural problem/failure,I=Pump station failure,J=Rainfall exceeded design,K=Root intrusion,L=Vandalism



Region 2

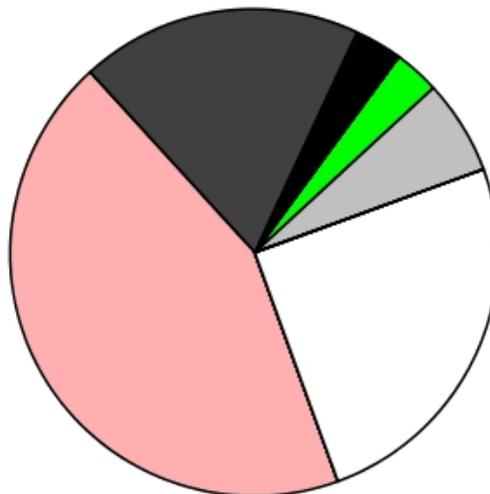


State of California

## Percentage of total Number of SSOs by Spill Cause



San Dist #1 of Marin CS



6% A 3% B 0% C 0% D 0% E 3% F 18% G 43% H 0% I 0% J 25% K 0% L

A=Debris-General,B=Debri-Rags,C=Debris,D=Flow exceeded capacity,E=Grease deposition (FOG),F=Operator error,G=Other,H=Pipe structural problem/failure,I=Pump station failure,J=Rainfall exceeded design,K=Root intrusion,L=Vandalism



Region 2

## Ross Valley Sanitary District CIWQS Operational Report



State of California

**Collection System Questionnaire Data(\*)**Collection System Information: San Dist #1 of Marin CS

Status	Active
Last Updated On	2012-10-17 11:02:02.0
Population Served	50,000
Miles of Force Main	8.4
Miles of Gravity Sewer	194.3
Miles of Laterals	0
Portion of Laterals Responsible	none
Miles of Laterals Responsible	
Number of Service Lateral Connection	19000
Sewer Constructed 2000 Current	9
Sewer Constructed 1980 1999	10
Sewer Constructed 1960 1979	0
Sewer Constructed 1940 1959	71
Sewer Constructed 1920 1939	5
Sewer Constructed 1900 1919	5
Sewer Constructed Before 1900	0
Inaccessible Sewer (Miles)	20
Sewer Clean Production (Miles/Yr)	180
Gravity Sewer Inspection (Miles/Yr)	67.5

(\*) The information presented above was provided by the Enrollee in the Collection System Questionnaire. Enrollees are required to update the questionnaire information at least once a year; therefore, the information presented above may not be the most current.

**Sewer System Management Plan (SSMP) Completion (\*)**SSMP Information: San Dist #1 of Marin CS

Task and Associated Section	Completed
Development Plan and Schedule	Yes
Section I - Goal	Yes
Section II - Organization	Yes
Section III - Legal Authority	Yes
Section IV - Operation & Maintenance Program	Yes
Section V - Design & Performance Provisions	Yes
Section VI - Overflow Emergency Response Plan	Yes
Section VII - FOG Control Program	Yes
Section VIII - System Evaluation & Capacity Assurance Plan	Yes
Section IX - Monitoring, Measurement, and Program Modifications	Yes
Section X - SSMP Program Audits	Yes
Section XI - Communication Program	Yes
Complete SSMP Implementation	Yes

(\*) Under the Statewide General WDRs for Sanitary Sewer Systems, WQO No. 2006-0003, enrollees are required to develop and implement a written Sewer system Management Plan (SSMP) and must make it publicly available. The SSMP must be approved by the deadlines in the SSMP Time Schedule presented in the Sanitary Sewer Systems WDR.

**Additional Information:**

- Data used for the Operational report is reported by the enrollees through the CIWQS (California Integrated Water Quality System) SSO module.

## Ross Valley Sanitary District CIWQS Operational Report

- Indices are calculated for the date range specified ( default is past 4 months ) and using data available since reporting was required for all enrollees as specified in the Sanitary Sewer Systems WDR. Reporting was required to begin for Regions 4,8,9 on 1/2/2007, Regions 1,2,3 on 5/2/2007, and, Regions 5,6,7 on 9/2/2007.
- Comparisons are made between similar collection systems type (e.g. Municipal), and lateral responsibility for the entire state and region. Indices are calculated for all similar collection systems and averaged for comparison.
- Category 1 spills are required to be fully certified 15 calendar days after SSO response conclusion and Category 2 spills are required to be fully certified 30 Calendar days after end of calendar month which SSO occurred. Therefore, spill records for the past approximately 60 days may be incomplete.
- Average Number of Spills per 100 miles: Measures the number of sewer overflows per 100 miles of sewer lines. Notice that these indices are strongly influenced by the length of collection system owned by the enrollee.
  - For instance, an enrollee that owns and operates a collection system of one (1) mile in length having only one (1) spill (analyzing data for ONE year) will have a Operational indice of 100.0 spills/100mi/yr. On the other hand, an enrollee that owns and operates a collection system of one hundred (100) miles in length having only one (1) spill (analyzing data for ONE year) will have a Operational indice of 1.0 spills/100mi/yr.
- Average Net Volume (volume spilled minus volume recovered) of Spills per Capita: Measures the volume in gallons of SSOs, for which the reporting Enrollee is responsible, per capita ( the population served by your agency's sanitary sewer system). Where the volume recovered is greater than the volume spilled, the net volume will be considered to be zero.
- The "agency" or Enrollee listed on a SSO report is responsible for the data presented in this report and should be contacted directly for questions related to their Data.
- More information on the Sanitary Sewer Overflow Reduction program is available at:  
[http://www.waterboards.ca.gov/water\\_issues/programs/ss0/index.shtml](http://www.waterboards.ca.gov/water_issues/programs/ss0/index.shtml)
- The Sanitary Sewer Overflows Incident Map is available at:  
[http://www.waterboards.ca.gov/water\\_issues/programs/ss0/ss0\\_map/ss0\\_pub.shtml](http://www.waterboards.ca.gov/water_issues/programs/ss0/ss0_map/ss0_pub.shtml)
- The Interactive SSO report: [https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportSSOServlet?reportAction=criteria&reportId=ss0\\_main](https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportSSOServlet?reportAction=criteria&reportId=ss0_main)

The current report was generated with data as of: Tuesday, April 23, 2013

## Castro Valley Sanitary District CIWQS Operational Report

## COLLECTION SYSTEM OPERATIONAL REPORT

Please see the [Glossary of Terms](#) for explanations of the search results column headings. [More information about the report is found at the bottom of this page.](#)

## General Information



Region	Place ID	Place Name	CS Category	Place Address	Place County
2	630740	Castro Valley Sanitary Distric CS	Municipal	21040 Marshall Castro Valley, CA, 94546	Alameda



## Collection System Spill Summary

**Operational Indices:** Castro Valley Sanitary Distric CS

Spill Rate Indice (#spills/100mi/yr)						
	Category 1			Category 2		
	Mainlines	Laterals	Not Specified	Mainlines	Laterals	Not Specified
Castro Valley Sanitary Distric CS	2.03	N/A	0.0	1.35	N/A	0.0
State - Municipal - Average	<a href="#">4.01</a>	N/A	<a href="#">3.63</a>	<a href="#">7.32</a>	N/A	<a href="#">3.22</a>
Region - Municipal - Average	<a href="#">7.21</a>	N/A	<a href="#">5.12</a>	<a href="#">11.36</a>	N/A	<a href="#">2.23</a>

Net Volume Spills Indice (Net Vol in gallons/1000 Capita/yr)						
	Category 1			Category 2		
	Mainlines	Laterals	Not Specified	Mainlines	Laterals	Not Specified
Castro Valley Sanitary Distric CS	147.59	N/A	0.0	19.47	N/A	0.0
State - Municipal - Average	<a href="#">1889.46</a>	N/A	<a href="#">6333.16</a>	<a href="#">67.17</a>	N/A	<a href="#">32.97</a>
Region - Municipal - Average	<a href="#">1387.29</a>	N/A	<a href="#">836.98</a>	<a href="#">63.47</a>	N/A	<a href="#">5.2</a>

**Note:** Click on hyperlinks to get comparison charts for CS, Region, and State grouped by 'Miles Of Pipe'.

- (1) The number of Category 1 and 2 SSOs resulting from a failure in the Enrollee sewer system per 100 miles sewer system owned by the Enrollee per year.
- (2) Net Volume (volume spilled minus volume recovered) of SSOs, for which the reporting Enrollee is responsible, per capita (i.e. the population served by your agency's sanitary sewer system), per year.
- (3) Value calculated using miles of force mains and other pressure systems and miles of gravity sewers the agency is responsible for.
- (4) Value calculated using miles of laterals the agency is responsible for (Lower Only, UpperLower). For collection systems with no lateral responsibility a N/A is shown.
- (5) Value Calculated using total miles of collection system pipe the agency is responsible for.
- (6) Comparison made between similar collection systems type (e.g. municipal) and lateral responsibility for the entire state over the selected time period. Comparison indices are calculated for all similar collection systems and averaged for comparison.
- (7) Comparison made between similar collection systems type (e.g. Municipal) and lateral responsibility for

## Castro Valley Sanitary District CIWQS Operational Report

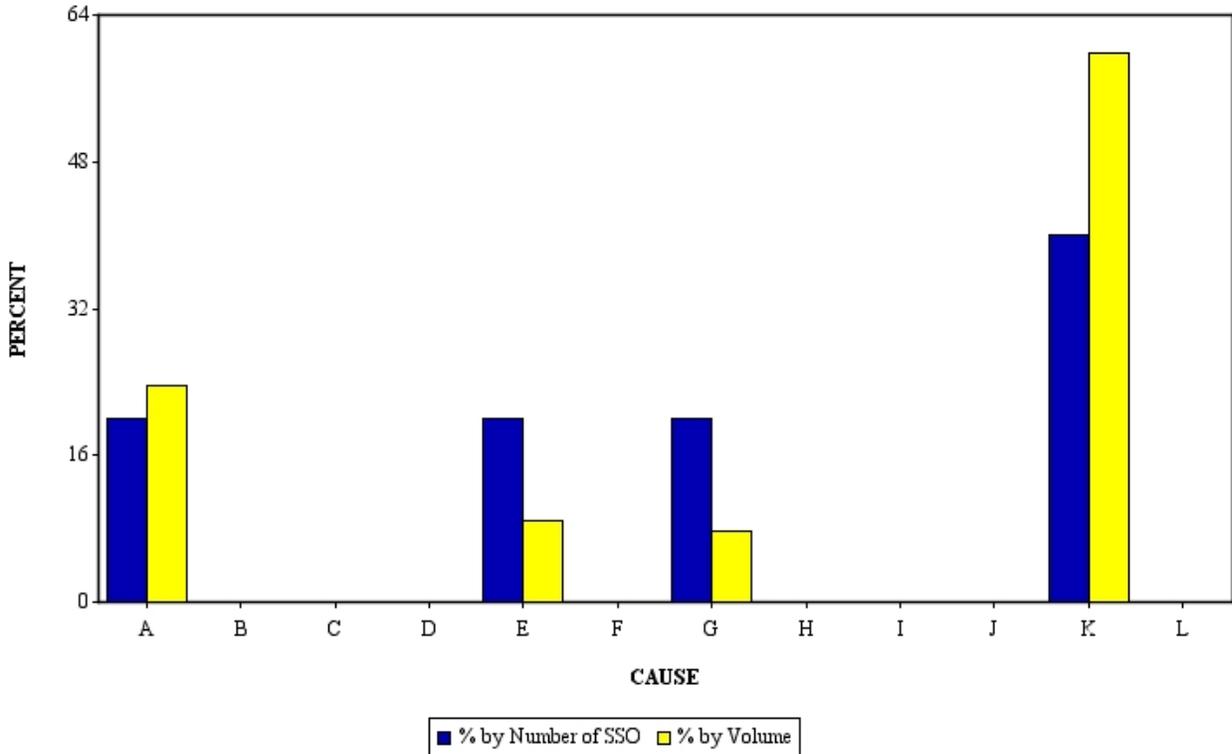
collection systems in same region (e.g. Region 5S). Collection system indices are calculated for all similar collection systems and averaged for comparison. For airport, hospital, marinas, military, park, port, prison, school, and other collection systems facilities, only state comparison is shown.

(8) For Criteria used and term definitions refer to the SSO Glossary of Terms.



### Percentage of total Number and Volume of SSOs by Spill Cause

Collection System: Castro Valley Sanitary District CS



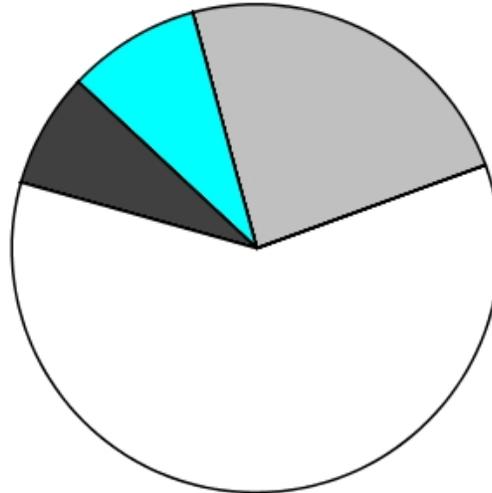
A=Debris-General,B=Debris-Rags,C=Debris,D=Flow exceeded capacity,E=Grease deposition(FOG),F=Operator error,G=Other,H=Pipe structural problem/failure,I=Pump station failure,J=Rainfall exceeded design,K=Root intrusion,L=Vandalism

### Percentage of total Volume of SSOs by Spill Cause



Castro Valley Sanitary District CS

### Castro Valley Sanitary District CIWQS Operational Report



23% A 0% B 0% C 0% D 8% E 0% F 7% G 0% H 0% I 0% J 59% K 0% L

A=Debris-General,B=Debri-Rags,C=Debris,D=Flow exceeded capacity,E=Grease deposition(FOG),F=Operator error,G=Other,H=Pipe structural problem/failure,I=Pump station failure,J=Rainfall exceeded design,K=Root intrusion,L=Vandalism



Region 2

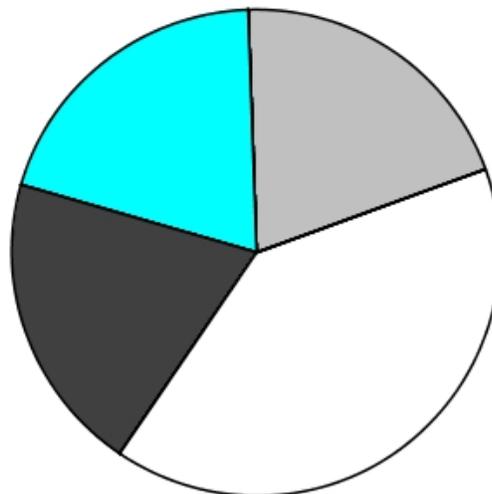


State of California

### Percentage of total Number of SSOs by Spill Cause



Castro Valley Sanitary Distric CS



20% A 0% B 0% C 0% D 20% E 0% F 20% G 0% H 0% I 0% J 40% K 0% L

A=Debris-General,B=Debri-Rags,C=Debris,D=Flow exceeded capacity,E=Grease deposition(FOG),F=Operator error,G=Other,H=Pipe structural problem/failure,I=Pump station failure,J=Rainfall exceeded design,K=Root intrusion,L=Vandalism



Region 2

## Castro Valley Sanitary District CIWQS Operational Report



State of California

**Collection System Questionnaire Data(\*)**Collection System Information: Castro Valley Sanitary District CS

Status	Active
Last Updated On	2013-03-29 16:36:17.0
Population Served	61,388
Miles of Force Main	2
Miles of Gravity Sewer	146
Miles of Laterals	158
Portion of Laterals Responsible	none
Miles of Laterals Responsible	
Number of Service Lateral Connection	17003
Sewer Constructed 2000 Current	3
Sewer Constructed 1980 1999	12
Sewer Constructed 1960 1979	24
Sewer Constructed 1940 1959	56
Sewer Constructed 1920 1939	5
Sewer Constructed 1900 1919	0
Sewer Constructed Before 1900	0
Inaccessible Sewer (Miles)	18
Sewer Clean Production (Miles/Yr)	95
Gravity Sewer Inspection (Miles/Yr)	32

(\*) The information presented above was provided by the Enrollee in the Collection System Questionnaire. Enrollees are required to update the questionnaire information at least once a year; therefore, the information presented above may not be the most current.

**Sewer System Management Plan (SSMP) Completion (\*)**SSMP Information: Castro Valley Sanitary District CS

Task and Associated Section	Completed
Development Plan and Schedule	Yes
Section I - Goal	Yes
Section II - Organization	Yes
Section III - Legal Authority	Yes
Section IV - Operation & Maintenance Program	Yes
Section V - Design & Performance Provisions	Yes
Section VI - Overflow Emergency Response Plan	Yes
Section VII - FOG Control Program	Yes
Section VIII - System Evaluation & Capacity Assurance Plan	Yes
Section IX - Monitoring, Measurement, and Program Modifications	Yes
Section X - SSMP Program Audits	Yes
Section XI - Communication Program	Yes
Complete SSMP Implementation	Yes

(\*) Under the Statewide General WDRs for Sanitary Sewer Systems, WQO No. 2006-0003, enrollees are required to develop and implement a written Sewer system Management Plan (SSMP) and must make it publicly available. The SSMP must be approved by the deadlines in the SSMP Time Schedule presented in the Sanitary Sewer Systems WDR.

**Additional Information:**

- Data used for the Operational report is reported by the enrollees through the CIWQS (California Integrated Water Quality System) SSO module.

## Castro Valley Sanitary District CIWQS Operational Report

- Indices are calculated for the date range specified ( default is past 4 months ) and using data available since reporting was required for all enrollees as specified in the Sanitary Sewer Systems WDR. Reporting was required to begin for Regions 4,8,9 on 1/2/2007, Regions 1,2,3 on 5/2/2007, and, Regions 5,6,7 on 9/2/2007.
- Comparisons are made between similar collection systems type (e.g. Municipal), and lateral responsibility for the entire state and region. Indices are calculated for all similar collection systems and averaged for comparison.
- Category 1 spills are required to be fully certified 15 calendar days after SSO response conclusion and Category 2 spills are required to be fully certified 30 Calendar days after end of calendar month which SSO occurred. Therefore, spill records for the past approximately 60 days may be incomplete.
- Average Number of Spills per 100 miles: Measures the number of sewer overflows per 100 miles of sewer lines. Notice that these indices are strongly influenced by the length of collection system owned by the enrollee.
  - For instance, an enrollee that owns and operates a collection system of one (1) mile in length having only one (1) spill (analyzing data for ONE year) will have a Operational indice of 100.0 spills/100mi/yr. On the other hand, an enrollee that owns and operates a collection system of one hundred (100) miles in length having only one (1) spill (analyzing data for ONE year) will have a Operational indice of 1.0 spills/100mi/yr.
- Average Net Volume (volume spilled minus volume recovered) of Spills per Capita: Measures the volume in gallons of SSOs, for which the reporting Enrollee is responsible, per capita ( the population served by your agency's sanitary sewer system). Where the volume recovered is greater than the volume spilled, the net volume will be considered to be zero.
- The "agency" or Enrollee listed on a SSO report is responsible for the data presented in this report and should be contacted directly for questions related to their Data.
- More information on the Sanitary Sewer Overflow Reduction program is available at: [http://www.waterboards.ca.gov/water\\_issues/programs/ss0/index.shtml](http://www.waterboards.ca.gov/water_issues/programs/ss0/index.shtml)
- The Sanitary Sewer Overflows Incident Map is available at: [http://www.waterboards.ca.gov/water\\_issues/programs/ss0/ss0\\_map/ss0\\_pub.shtml](http://www.waterboards.ca.gov/water_issues/programs/ss0/ss0_map/ss0_pub.shtml)
- The Interactive SSO report: [https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportSSOServlet?reportAction=criteria&reportId=ss0\\_main](https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportSSOServlet?reportAction=criteria&reportId=ss0_main)

The current report was generated with data as of: Tuesday, April 23, 2013

## Novato Sanitary District CIWQS Operational Report

## COLLECTION SYSTEM OPERATIONAL REPORT

Please see the [Glossary of Terms](#) for explanations of the search results column headings. [More information about the report is found at the bottom of this page.](#)

## General Information



Region	Place ID	Place Name	CS Category	Place Address	Place County
2	630953	Novato And Ignacio CS	Municipal	500 Davidson Novato, CA, 94945	Marin



## Collection System Spill Summary

Operational Indices: Novato And Ignacio CS

Spill Rate Index (#spills/100mi/yr)						
	Category 1			Category 2		
	Mainlines	Laterals	Not Specified	Mainlines	Laterals	Not Specified
Novato And Ignacio CS	3.11	N/A	0.44	2.67	N/A	0.0
State - Municipal - Average	<a href="#">4.01</a>	N/A	<a href="#">3.63</a>	<a href="#">7.32</a>	N/A	<a href="#">3.22</a>
Region - Municipal - Average	<a href="#">7.21</a>	N/A	<a href="#">5.12</a>	<a href="#">11.36</a>	N/A	<a href="#">2.23</a>

Net Volume Spills Index (Net Vol in gallons/1000 Capita/yr)						
	Category 1			Category 2		
	Mainlines	Laterals	Not Specified	Mainlines	Laterals	Not Specified
Novato And Ignacio CS	273.27	N/A	102.64	0.09	N/A	0.0
State - Municipal - Average	<a href="#">1889.46</a>	N/A	<a href="#">6333.16</a>	<a href="#">67.17</a>	N/A	<a href="#">32.97</a>
Region - Municipal - Average	<a href="#">1387.29</a>	N/A	<a href="#">836.98</a>	<a href="#">63.47</a>	N/A	<a href="#">5.2</a>

**Note:** Click on hyperlinks to get comparison charts for CS, Region, and State grouped by 'Miles Of Pipe'.

- (1) The number of Category 1 and 2 SSOs resulting from a failure in the Enrollee sewer system per 100 miles sewer system owned by the Enrollee per year.
- (2) Net Volume (volume spilled minus volume recovered) of SSOs, for which the reporting Enrollee is responsible, per capita (i.e. the population served by your agency's sanitary sewer system), per year.
- (3) Value calculated using miles of force mains and other pressure systems and miles of gravity sewers the agency is responsible for.
- (4) Value calculated using miles of laterals the agency is responsible for (Lower Only, Upper/Lower). For collection systems with no lateral responsibility a N/A is shown.
- (5) Value Calculated using total miles of collection system pipe the agency is responsible for.
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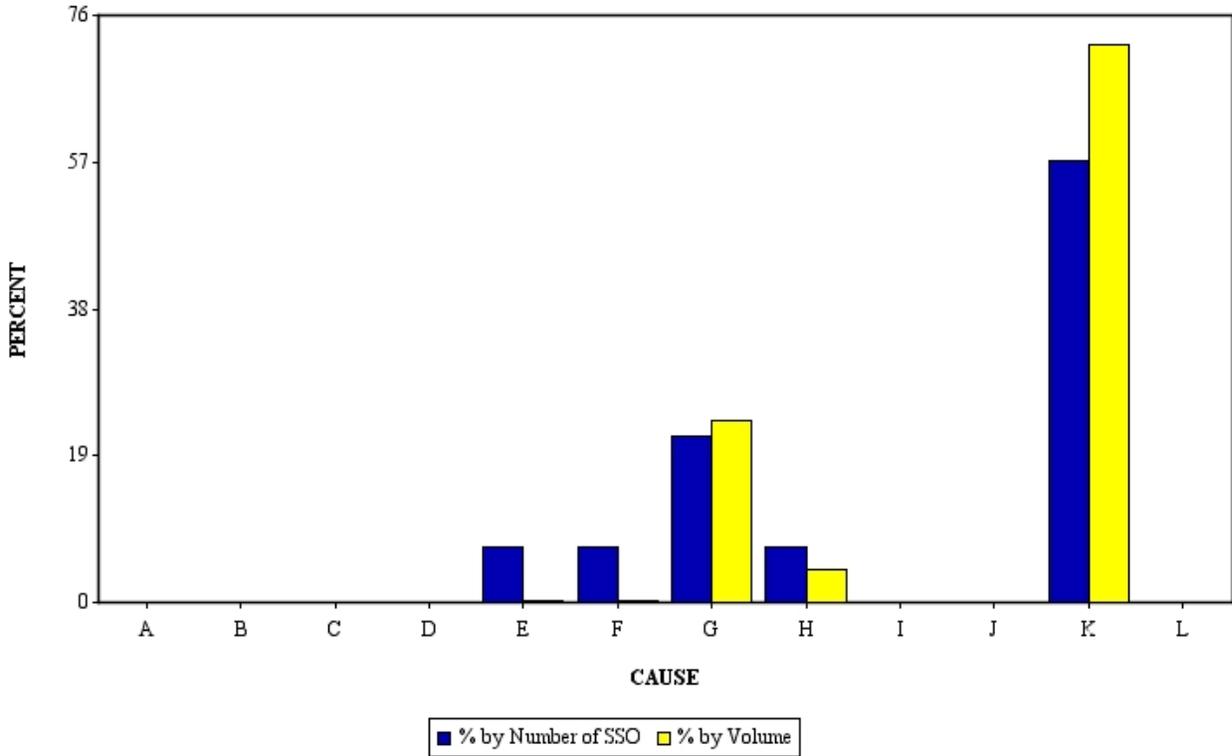
## Novato Sanitary District CIWQS Operational Report

and other collection systems facilities, only state comparison is shown.  
 (8) For Criteria used and term definitions refer to the SSO Glossary of Terms.



### Percentage of total Number and Volume of SSOs by Spill Cause

Collection System: Novato And Ignacio CS



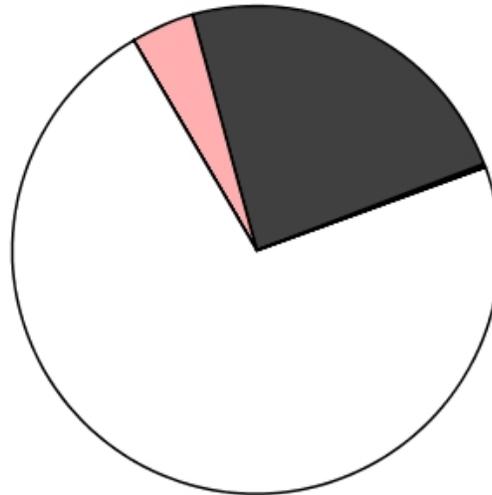
**A=Debris-General,B=Debri-Rags,C=Debris,D=Flow exceeded capacity,E=Grease deposition(FOG),F=Operator error,G=Other,H=Pipe structural problem/failure,I=Pump station failure,J=Rainfall exceeded design,K=Root intrusion,L=Vandalism**

### Percentage of total Volume of SSOs by Spill Cause



Novato And Ignacio CS

### Novato Sanitary District CIWQS Operational Report



0% A 0% B 0% C 0% D 0% E 0% F 23% G 4% H 0% I 0% J 72% K 0% L

A=Debris-General,B=Debri-Rags,C=Debris,D=Flow exceeded capacity,E=Grease deposition (FOG),F=Operator error,G=Other,H=Pipe structural problem/failure,I=Pump station failure,J=Rainfall exceeded design,K=Root intrusion,L=Vandalism



Region 2

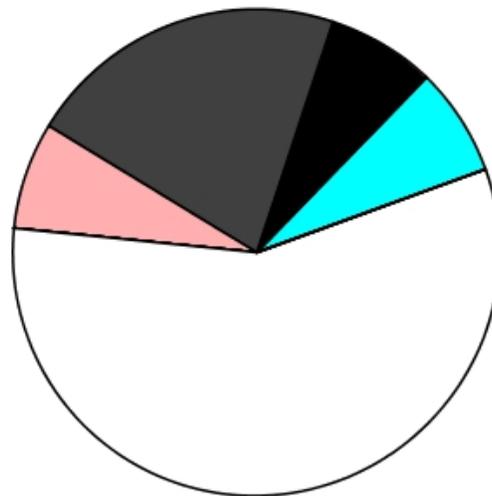


State of California

### Percentage of total Number of SSOs by Spill Cause



Novato And Ignacio CS



0% A 0% B 0% C 0% D 7% E 7% F 21% G 7% H 0% I 0% J 57% K 0% L

A=Debris-General,B=Debri-Rags,C=Debris,D=Flow exceeded capacity,E=Grease deposition (FOG),F=Operator error,G=Other,H=Pipe structural problem/failure,I=Pump station failure,J=Rainfall exceeded design,K=Root intrusion,L=Vandalism



Region 2

## Novato Sanitary District CIWQS Operational Report



State of California

**Collection System Questionnaire Data(\*)**Collection System Information: Novato And Ignacio CS

Status	Active
Last Updated On	2013-04-02 14:29:55.0
Population Served	56,000
Miles of Force Main	27
Miles of Gravity Sewer	198
Miles of Laterals	0
Portion of Laterals Responsible	none
Miles of Laterals Responsible	
Number of Service Lateral Connection	22000
Sewer Constructed 2000 Current	10
Sewer Constructed 1980 1999	22
Sewer Constructed 1960 1979	46
Sewer Constructed 1940 1959	22
Sewer Constructed 1920 1939	0
Sewer Constructed 1900 1919	0
Sewer Constructed Before 1900	0
Inaccessible Sewer (Miles)	20
Sewer Clean Production (Miles/Yr)	149.6
Gravity Sewer Inspection (Miles/Yr)	21.6

(\*) The information presented above was provided by the Enrollee in the Collection System Questionnaire. Enrollees are required to update the questionnaire information at least once a year; therefore, the information presented above may not be the most current.

**Sewer System Management Plan (SSMP) Completion (\*)**SSMP Information: Novato And Ignacio CS

Task and Associated Section	Completed
Development Plan and Schedule	Yes
Section I - Goal	Yes
Section II - Organization	Yes
Section III - Legal Authority	Yes
Section IV - Operation & Maintenance Program	Yes
Section V - Design & Performance Provisions	Yes
Section VI - Overflow Emergency Response Plan	Yes
Section VII - FOG Control Program	Yes
Section VIII - System Evaluation & Capacity Assurance Plan	Yes
Section IX - Monitoring, Measurement, and Program Modifications	Yes
Section X - SSMP Program Audits	Yes
Section XI - Communication Program	Yes
Complete SSMP Implementation	Yes

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## Novato Sanitary District CIWQS Operational Report

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- Category 1 spills are required to be fully certified 15 calendar days after SSO response conclusion and Category 2 spills are required to be fully certified 30 Calendar days after end of calendar month which SSO occurred. Therefore, spill records for the past approximately 60 days may be incomplete.
- Average Number of Spills per 100 miles: Measures the number of sewer overflows per 100 miles of sewer lines. Notice that these indices are strongly influenced by the length of collection system owned by the enrollee.
  - For instance, an enrollee that owns and operates a collection system of one (1) mile in length having only one (1) spill (analyzing data for ONE year) will have a Operational indice of 100.0 spills/100mi/yr. On the other hand, an enrollee that owns and operates a collection system of one hundred (100) miles in length having only one (1) spill (analyzing data for ONE year) will have a Operational indice of 1.0 spills/100mi/yr.
- Average Net Volume (volume spilled minus volume recovered) of Spills per Capita: Measures the volume in gallons of SSOs, for which the reporting Enrollee is responsible, per capita ( the population served by your agency's sanitary sewer system). Where the volume recovered is greater than the volume spilled, the net volume will be considered to be zero.
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- The Sanitary Sewer Overflows Incident Map is available at:  
[http://www.waterboards.ca.gov/water\\_issues/programs/ss0/ss0\\_map/ss0\\_pub.shtml](http://www.waterboards.ca.gov/water_issues/programs/ss0/ss0_map/ss0_pub.shtml)
- The Interactive SSO report: [https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportSSOServlet?reportAction=criteria&reportId=ss0\\_main](https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportSSOServlet?reportAction=criteria&reportId=ss0_main)

The current report was generated with data as of: Tuesday, April 23, 2013

## West Bay Sanitary District CIWQS Operational Report

## COLLECTION SYSTEM OPERATIONAL REPORT

Please see the [Glossary of Terms](#) for explanations of the search results column headings. [More information about the report is found at the bottom of this page.](#)

General Information  

<u>Region</u>	<u>Place ID</u>	<u>Place Name</u>	<u>CS Category</u>	<u>Place Address</u>	<u>Place County</u>
2	631678	West Bay Sd CS	Municipal	500 Laurel Menlo Park, CA, 94025	San Mateo



## Collection System Spill Summary

Operational Indices: West Bay Sd CS

Spill Rate Index (#spills/100mi/yr)						
	Category 1			Category 2		
	Mainlines	Laterals	Not Specified	Mainlines	Laterals	Not Specified
West Bay Sd CS	0.0	N/A	0.0	4.76	N/A	0.48
State - Municipal - Average	<a href="#">4.01</a>	N/A	<a href="#">3.63</a>	<a href="#">7.32</a>	N/A	<a href="#">3.22</a>
Region - Municipal - Average	<a href="#">7.21</a>	N/A	<a href="#">5.12</a>	<a href="#">11.36</a>	N/A	<a href="#">2.23</a>

Net Volume Spills Index (Net Vol in gallons/1000 Capita/yr)						
	Category 1			Category 2		
	Mainlines	Laterals	Not Specified	Mainlines	Laterals	Not Specified
West Bay Sd CS	0.0	N/A	0.0	4.85	N/A	16.85
State - Municipal - Average	<a href="#">1889.46</a>	N/A	<a href="#">6333.16</a>	<a href="#">67.17</a>	N/A	<a href="#">32.97</a>
Region - Municipal - Average	<a href="#">1387.29</a>	N/A	<a href="#">836.98</a>	<a href="#">63.47</a>	N/A	<a href="#">5.2</a>

**Note:** Click on hyperlinks to get comparison charts for CS, Region, and State grouped by 'Miles Of Pipe'.

- (1) The number of Category 1 and 2 SSOs resulting from a failure in the Enrollee sewer system per 100 miles sewer system owned by the Enrollee per year.
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- (3) Value calculated using miles of force mains and other pressure systems and miles of gravity sewers the agency is responsible for.
- (4) Value calculated using miles of laterals the agency is responsible for (Lower Only, Upper/Lower). For collection systems with no lateral responsibility a N/A is shown.
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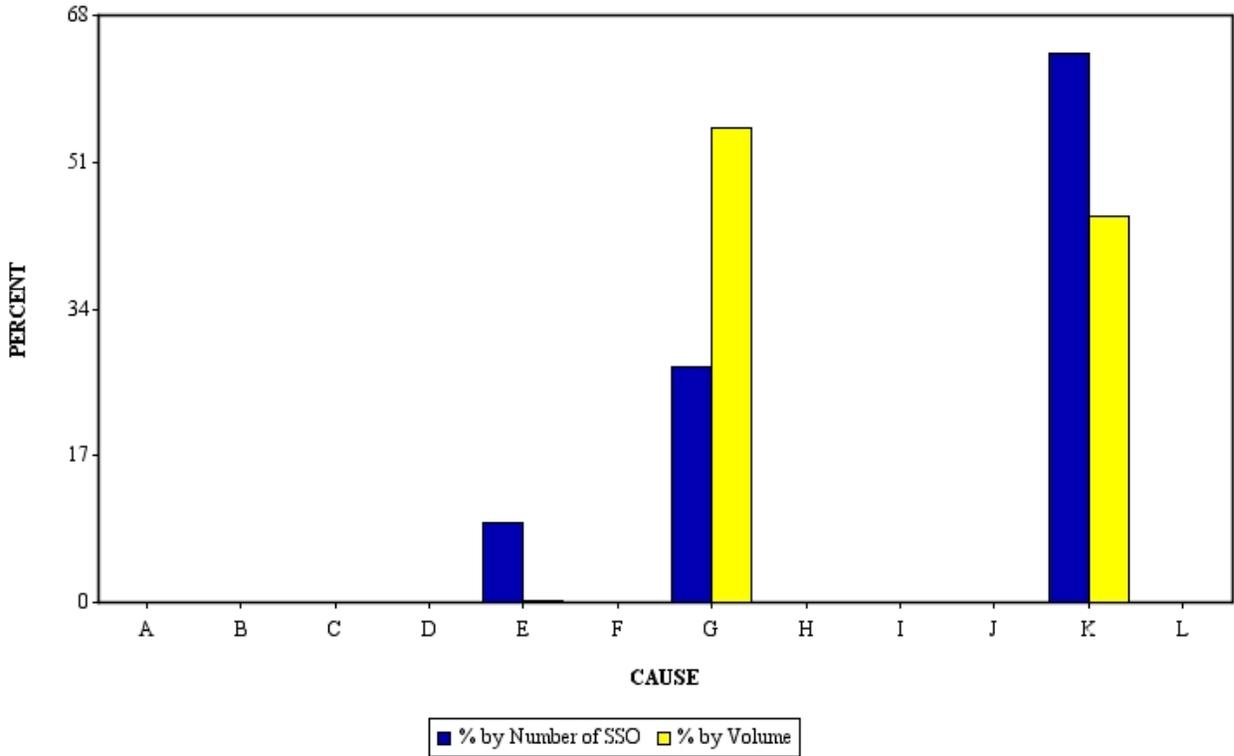
## West Bay Sanitary District CIWQS Operational Report

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### Percentage of total Number and Volume of SSOs by Spill Cause

Collection System: West Bay Sd CS



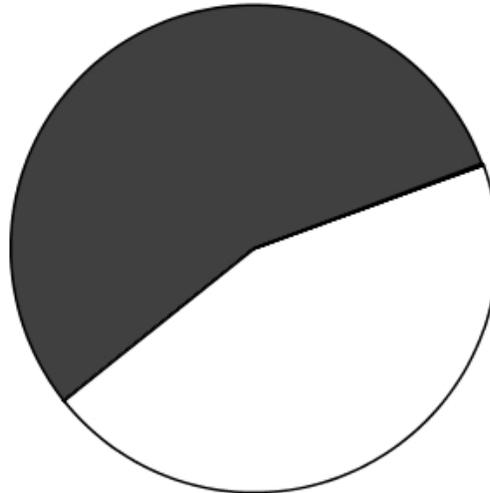
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### Percentage of total Volume of SSOs by Spill Cause



West Bay Sd CS

## West Bay Sanitary District CIWQS Operational Report



0% A 0% B 0% C 0% D 0% E 0% F 55% G 0% H 0% I 0% J 44% K 0% L

A=Debris-General,B=Debris-Rags,C=Debris,D=Flow exceeded capacity,E=Grease deposition(FOG),F=Operator error,G=Other,H=Pipe structural problem/failure,I=Pump station failure,J=Rainfall exceeded design,K=Root intrusion,L=Vandalism



Region 2

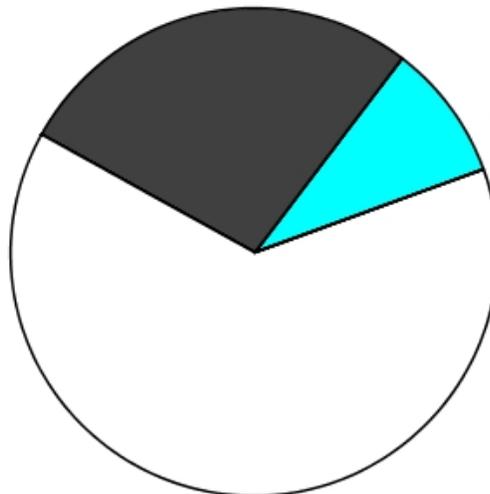


State of California

## Percentage of total Number of SSOs by Spill Cause



West Bay Sd CS



0% A 0% B 0% C 0% D 9% E 0% F 27% G 0% H 0% I 0% J 63% K 0% L

A=Debris-General,B=Debris-Rags,C=Debris,D=Flow exceeded capacity,E=Grease deposition(FOG),F=Operator error,G=Other,H=Pipe structural problem/failure,I=Pump station failure,J=Rainfall exceeded design,K=Root intrusion,L=Vandalism



Region 2

## West Bay Sanitary District CIWQS Operational Report



State of California

**Collection System Questionnaire Data(\*)**Collection System Information: West Bay Sd CS

Status	Active
Last Updated On	2013-02-21 14:28:38.0
Population Served	55,000
Miles of Force Main	10
Miles of Gravity Sewer	200
Miles of Laterals	360
Portion of Laterals Responsible	none
Miles of Laterals Responsible	
Number of Service Lateral Connection	19116
Sewer Constructed 2000 Current	10
Sewer Constructed 1980 1999	16
Sewer Constructed 1960 1979	17
Sewer Constructed 1940 1959	32
Sewer Constructed 1920 1939	17
Sewer Constructed 1900 1919	8
Sewer Constructed Before 1900	0
Inaccessible Sewer (Miles)	10
Sewer Clean Production (Miles/Yr)	185
Gravity Sewer Inspection (Miles/Yr)	48.5

(\*) The information presented above was provided by the Enrollee in the Collection System Questionnaire. Enrollees are required to update the questionnaire information at least once a year; therefore, the information presented above may not be the most current.

**Sewer System Management Plan (SSMP) Completion (\*)**SSMP Information: West Bay Sd CS

Task and Associated Section	Completed
Development Plan and Schedule	Yes
Section I - Goal	Yes
Section II - Organization	Yes
Section III - Legal Authority	Yes
Section IV - Operation & Maintenance Program	Yes
Section V - Design & Performance Provisions	Yes
Section VI - Overflow Emergency Response Plan	Yes
Section VII - FOG Control Program	Yes
Section VIII - System Evaluation & Capacity Assurance Plan	Yes
Section IX - Monitoring, Measurement, and Program Modifications	Yes
Section X - SSMP Program Audits	Yes
Section XI - Communication Program	Yes
Complete SSMP Implementation	Yes

(\*) Under the Statewide General WDRs for Sanitary Sewer Systems, WQO No. 2006-0003, enrollees are required to develop and implement a written Sewer system Management Plan (SSMP) and must make it publicly available. The SSMP must be approved by the deadlines in the SSMP Time Schedule presented in the Sanitary Sewer Systems WDR.

**Additional Information:**

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## West Bay Sanitary District CIWQS Operational Report

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- Comparisons are made between similar collection systems type (e.g. Municipal), and lateral responsibility for the entire state and region. Indices are calculated for all similar collection systems and averaged for comparison.
- Category 1 spills are required to be fully certified 15 calendar days after SSO response conclusion and Category 2 spills are required to be fully certified 30 Calendar days after end of calendar month which SSO occurred. Therefore, spill records for the past approximately 60 days may be incomplete.
- Average Number of Spills per 100 miles: Measures the number of sewer overflows per 100 miles of sewer lines. Notice that these indices are strongly influenced by the length of collection system owned by the enrollee.
  - For instance, an enrollee that owns and operates a collection system of one (1) mile in length having only one (1) spill (analyzing data for ONE year) will have a Operational indice of 100.0 spills/100mi/yr. On the other hand, an enrollee that owns and operates a collection system of one hundred (100) miles in length having only one (1) spill (analyzing data for ONE year) will have a Operational indice of 1.0 spills/100mi/yr.
- Average Net Volume (volume spilled minus volume recovered) of Spills per Capita: Measures the volume in gallons of SSOs, for which the reporting Enrollee is responsible, per capita ( the population served by your agency's sanitary sewer system). Where the volume recovered is greater than the volume spilled, the net volume will be considered to be zero.
- The "agency" or Enrollee listed on a SSO report is responsible for the data presented in this report and should be contacted directly for questions related to their Data.
- More information on the Sanitary Sewer Overflow Reduction program is available at:  
[http://www.waterboards.ca.gov/water\\_issues/programs/ss0/index.shtml](http://www.waterboards.ca.gov/water_issues/programs/ss0/index.shtml)
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- The Interactive SSO report: [https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportSSOServlet?reportAction=criteria&reportId=ss0\\_main](https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportSSOServlet?reportAction=criteria&reportId=ss0_main)

The current report was generated with data as of: Tuesday, April 23, 2013

## West County Wastewater District CIWQS Operational Report

## COLLECTION SYSTEM OPERATIONAL REPORT

Please see the [Glossary of Terms](#) for explanations of the search results column headings. [More information about the report is found at the bottom of this page.](#)

## General Information



Region	Place ID	Place Name	CS Category	Place Address	Place County
2	631679	West County WW District CS	Municipal	2377 Garden Tract Richmond, CA, 94806	Contra Costa



## Collection System Spill Summary

Operational Indices: West County WW District CS

Spill Rate Indice (#spills/100mi/yr)						
	Category 1			Category 2		
	Mainlines	Laterals	Not Specified	Mainlines	Laterals	Not Specified
West County WW District CS	3.52	N/A	0.0	0.39	N/A	0.0
State - Municipal - Average	<a href="#">4.01</a>	N/A	<a href="#">3.63</a>	<a href="#">7.32</a>	N/A	<a href="#">3.22</a>
Region - Municipal - Average	<a href="#">7.21</a>	N/A	<a href="#">5.12</a>	<a href="#">11.36</a>	N/A	<a href="#">2.23</a>

Net Volume Spills Indice (Net Vol in gallons/1000 Capita/yr)						
	Category 1			Category 2		
	Mainlines	Laterals	Not Specified	Mainlines	Laterals	Not Specified
West County WW District CS	154.6	N/A	0.0	3.16	N/A	0.0
State - Municipal - Average	<a href="#">1889.46</a>	N/A	<a href="#">6333.16</a>	<a href="#">67.17</a>	N/A	<a href="#">32.97</a>
Region - Municipal - Average	<a href="#">1387.29</a>	N/A	<a href="#">836.98</a>	<a href="#">63.47</a>	N/A	<a href="#">5.2</a>

**Note:** Click on hyperlinks to get comparison charts for CS, Region, and State grouped by 'Miles Of Pipe'.

- (1) The number of Category 1 and 2 SSOs resulting from a failure in the Enrollee sewer system per 100 miles sewer system owned by the Enrollee per year.
- (2) Net Volume (volume spilled minus volume recovered) of SSOs, for which the reporting Enrollee is responsible, per capita (i.e. the population served by your agency's sanitary sewer system), per year.
- (3) Value calculated using miles of force mains and other pressure systems and miles of gravity sewers the agency is responsible for.
- (4) Value calculated using miles of laterals the agency is responsible for (Lower Only, Upper/Lower). For collection systems with no lateral responsibility a N/A is shown.
- (5) Value Calculated using total miles of collection system pipe the agency is responsible for.
- (6) Comparison made between similar collection systems type (e.g. municipal) and lateral responsibility for the entire state over the selected time period. Comparison indices are calculated for all similar collection systems and averaged for comparison.
- (7) Comparison made between similar collection systems type (e.g. Municipal) and lateral responsibility for collection systems in same region (e.g. Region 5S). Collection system indices are calculated for all similar collection systems and averaged for comparison. For airport, hospital, marinas, military, park, port, prison, school,

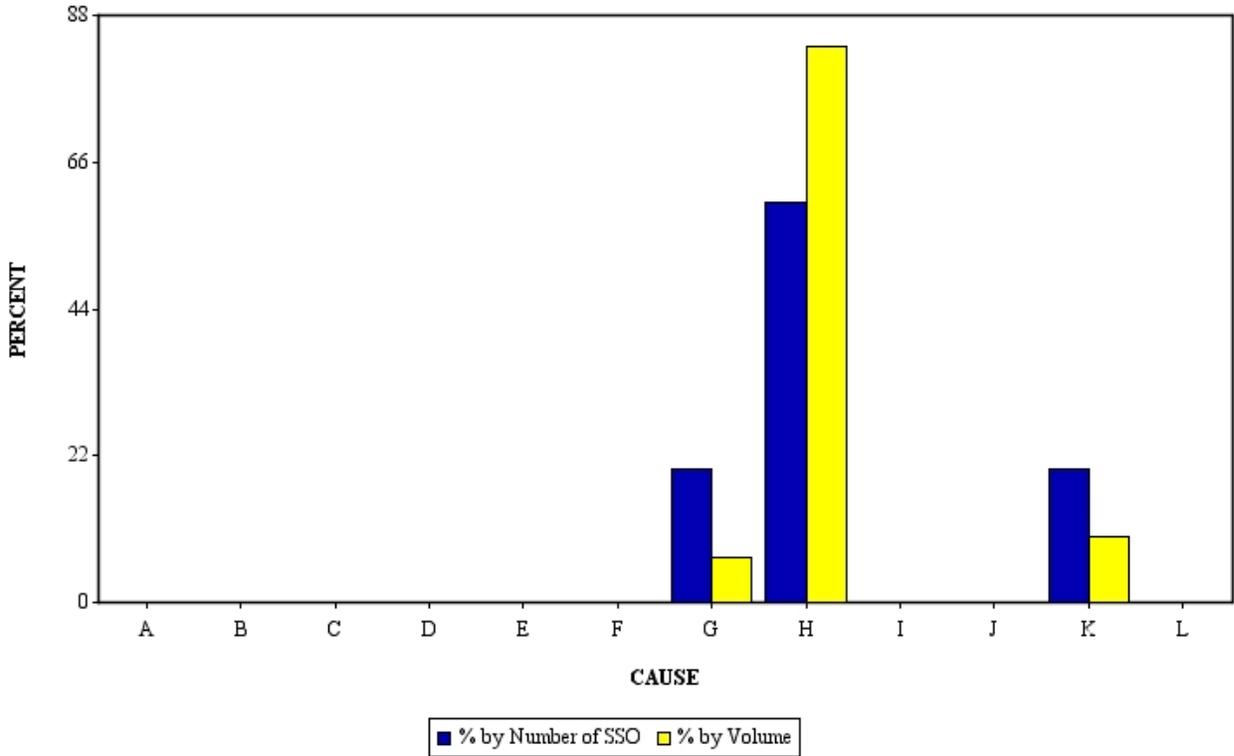
## West County Wastewater District CIWQS Operational Report

and other collection systems facilities, only state comparison is shown.  
 (8) For Criteria used and term definitions refer to the SSO Glossary of Terms.



### Percentage of total Number and Volume of SSOs by Spill Cause

Collection System: West County WW District CS



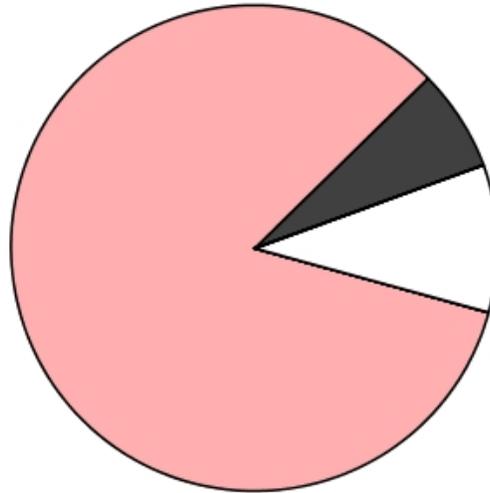
A=Debris-General,B=Debri-Rags,C=Debris,D=Flow exceeded capacity,E=Grease deposition(FOG),F=Operator error,G=Other,H=Pipe structural problem/failure,I=Pump station failure,J=Rainfall exceeded design,K=Root intrusion,L=Vandalism

### Percentage of total Volume of SSOs by Spill Cause



West County WW District CS

## West County Wastewater District CIWQS Operational Report



0% A 0% B 0% C 0% D 0% E 0% F 6% G 83% H 0% I 0% J 9% K 0% L

A=Debris-General,B=Debris-Rags,C=Debris,D=Flow exceeded capacity,E=Grease deposition (FOG),F=Operator error,G=Other,H=Pipe structural problem/failure,I=Pump station failure,J=Rainfall exceeded design,K=Root intrusion,L=Vandalism



Region 2

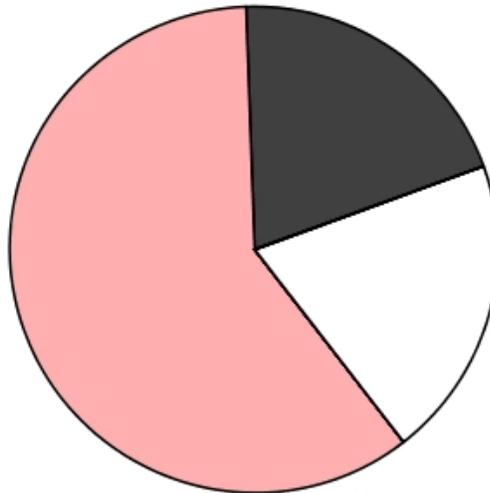


State of California

### Percentage of total Number of SSOs by Spill Cause



West County WW District CS



0% A 0% B 0% C 0% D 0% E 0% F 20% G 60% H 0% I 0% J 20% K 0% L

A=Debris-General,B=Debris-Rags,C=Debris,D=Flow exceeded capacity,E=Grease deposition (FOG),F=Operator error,G=Other,H=Pipe structural problem/failure,I=Pump station failure,J=Rainfall exceeded design,K=Root intrusion,L=Vandalism



Region 2

## West County Wastewater District CIWQS Operational Report



State of California

**Collection System Questionnaire Data(\*)**Collection System Information: West County WW District CS

Status	Active
Last Updated On	2012-10-25 15:31:13.0
Population Served	95,000
Miles of Force Main	7
Miles of Gravity Sewer	249
Miles of Laterals	249
Portion of Laterals Responsible	none
Miles of Laterals Responsible	
Number of Service Lateral Connection	23000
Sewer Constructed 2000 Current	8
Sewer Constructed 1980 1999	9
Sewer Constructed 1960 1979	34
Sewer Constructed 1940 1959	31
Sewer Constructed 1920 1939	18
Sewer Constructed 1900 1919	0
Sewer Constructed Before 1900	0
Inaccessible Sewer (Miles)	5
Sewer Clean Production (Miles/Yr)	340
Gravity Sewer Inspection (Miles/Yr)	54

(\*) The information presented above was provided by the Enrollee in the Collection System Questionnaire. Enrollees are required to update the questionnaire information at least once a year; therefore, the information presented above may not be the most current.

**Sewer System Management Plan (SSMP) Completion (\*)**SSMP Information: West County WW District CS

Task and Associated Section	Completed
Development Plan and Schedule	Yes
Section I - Goal	Yes
Section II - Organization	Yes
Section III - Legal Authority	Yes
Section IV - Operation & Maintenance Program	Yes
Section V - Design & Performance Provisions	Yes
Section VI - Overflow Emergency Response Plan	Yes
Section VII - FOG Control Program	Yes
Section VIII - System Evaluation & Capacity Assurance Plan	Yes
Section IX - Monitoring, Measurement, and Program Modifications	Yes
Section X - SSMP Program Audits	Yes
Section XI - Communication Program	Yes
Complete SSMP Implementation	Yes

(\*) Under the Statewide General WDRs for Sanitary Sewer Systems, WQO No. 2006-0003, enrollees are required to develop and implement a written Sewer system Management Plan (SSMP) and must make it publicly available. The SSMP must be approved by the deadlines in the SSMP Time Schedule presented in the Sanitary Sewer Systems WDR.

**Additional Information:**

- Data used for the Operational report is reported by the enrollees through the CIWQS (California Integrated Water Quality System) SSO module.

## West County Wastewater District CIWQS Operational Report

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- The Interactive SSO report: [https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportSSOServlet?reportAction=criteria&reportId=ss0\\_main](https://ciwqs.waterboards.ca.gov/ciwqs/readOnly/PublicReportSSOServlet?reportAction=criteria&reportId=ss0_main)

The current report was generated with data as of: Tuesday, April 23, 2013

## Napa Sanitation District Category 1 SSOs

California Home

Thursday, April 25, 2013



California Integrated Water Quality System Project (CIWQS)

## SSO Public Report - Detail Page

Here is the detail page of your SSO public report search for the selected region, responsible agency, or collection system. These results correspond to the following search criteria:

SEARCH CRITERIA: [\[REFINE SEARCH\]](#)

- WDID (2SSO10159)
- Spill Type (sso\_cat1)

The table below presents important details for all sewage discharge locations, as submitted through individual SSO reports, which meet the search criteria selected. If data is not shown for a particular field, it means the Enrollee did not provide the information and was not required to do so. To view the entire SSO report for a specific sewage discharge location, please select the corresponding EVENT ID.

DRILLDOWN HISTORY: [\[GO BACK TO SUMMARY PAGE\]](#)

REGION: 2

[\[VIEW PRINTER FRIENDLY VERSION\]](#)

<a href="#">EVENT ID</a>	<a href="#">Region</a>	<a href="#">Responsible Agency</a>	<a href="#">Collection System</a>	<a href="#">SSO Category</a>	<a href="#">Start Date</a>	<a href="#">SSO Address</a>	<a href="#">SSO City</a>	<a href="#">SSO Vol</a>	<a href="#">Vol of SSO Recovered</a>	<a href="#">Vol of SSO Reached Surface Water</a>	<a href="#">SSO Failure Point</a>	<a href="#">WDID</a>
<a href="#">706881</a>	2	NAPA SANITATION DISTRICT	Napa Sd CS	Category 1	2007-10-30 11:30:00.0	1065 Terrace Drive	Napa	3,000	3,000	0		2SSO10159
<a href="#">710749</a>	2	NAPA SANITATION DISTRICT	Napa Sd CS	Category 1	2008-01-04 09:00:00.0	Larkin Street	Napa	15,000	0	15,000		2SSO10159
<a href="#">710821</a>	2	NAPA SANITATION DISTRICT	Napa Sd CS	Category 1	2008-01-04 13:00:00.0	3300 Browns Valley Road	Napa	1,200	0	1,200		2SSO10159
<a href="#">710830</a>	2	NAPA SANITATION DISTRICT	Napa Sd CS	Category 1	2008-01-04 11:00:00.0	Brown Street	Napa	12,000	0	12,000		2SSO10159
<a href="#">733854</a>	2	NAPA SANITATION DISTRICT	Napa Sd CS	Category 1	2009-02-17 10:30:00.0	1040 Larkin Way	Napa	600	0	600		2SSO10159
<a href="#">735858</a>	2	NAPA SANITATION DISTRICT	Napa Sd CS	Category 1	2009-04-02 06:42:00.0	3811 Oxford Street	Napa	1,200	1,200	0	Main	2SSO10159
<a href="#">749794</a>	2	NAPA SANITATION DISTRICT	Napa Sd CS	Category 1	2010-02-24 09:30:00.0	Round Hill Circle	Napa	150	0	0		2SSO10159
<a href="#">754263</a>	2	NAPA SANITATION DISTRICT	Napa Sd CS	Category 1	2010-07-01 09:02:00.0	1027 Dezerai Court	Napa	10,000	325	9,675	Main	2SSO10159
<a href="#">759549</a>	2	NAPA SANITATION DISTRICT	Napa Sd CS	Category 1	2010-12-19 10:40:00.0	3500 Jefferson Street	Napa	1,200	0	1,200	Main	2SSO10159
<a href="#">759963</a>	2	NAPA SANITATION DISTRICT	Napa Sd CS	Category 1	2010-12-28 23:00:00.0	1040 Larkin Way	Napa	400	0	400	Main	2SSO10159
<a href="#">764499</a>	2	NAPA SANITATION DISTRICT	Napa Sd CS	Category 1	2011-03-18 11:29:00.0	3513 Jefferson Street	Napa	40	0	40	Lower Lateral	2SSO10159
<a href="#">764779</a>	2	NAPA SANITATION DISTRICT	Napa Sd CS	Category 1	2011-03-24 13:05:00.0	1003 McCormick Lane	Napa	875	0	875	Main	2SSO10159
<a href="#">770669</a>	2	NAPA SANITATION DISTRICT	Napa Sd CS	Category 1	2011-09-02 09:10:00.0	875 Bordeaux Way	Napa	200	50	0	Main	2SSO10159
<a href="#">788665</a>	2	NAPA SANITATION DISTRICT	Napa Sd CS	Category 1	2012-12-02 07:45:00.0	1582 East Avenue	Napa	5	0	5	Main	2SSO10159

### Napa Sanitation District Category 1 SSOs

<a href="#">789289</a>	2	NAPA SANITATION DISTRICT	Napa Sd CS	Category 1	2012-12-23 12:25:00.0	Browns Valley Road	Napa	600	0	600	Main 2SSO10159
<a href="#">789290</a>	2	NAPA SANITATION DISTRICT	Napa Sd CS	Category 1	2012-12-23 12:00:00.0	753 Jefferson Street	Napa	100	0	100	Main 2SSO10159

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Go To Page:  Records/Page  
1

The current report was generated with real-time data entered by Enrollees.

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