

STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT (Lila Tang)
MEETING DATE: May 11, 2016

ITEM: 6

SUBJECT: **Applied Asset Management for a Wastewater Collection System, Lessons for Performance-Based Regulatory Compliance** – Information Presentation by the Ross Valley Sanitation District

DISCUSSION: The Ross Valley Sanitation District will make a presentation on how the District used asset management to comply with statewide requirements for wastewater collection systems and particularly a cease and desist order (CDO) issued by the Board to the District in 2013. Prior to the 2013 CDO, the Board had also assessed penalties against the District for sanitary sewer overflows (SSO) of about \$1.5 million in 2012 and \$78,000 in 2006.

The 2013 CDO required the District to undertake tasks to ensure adequate long term wastewater collection system rehabilitation and financing and to consider a private sewer lateral ordinance.

Mr. Greg Norby, who became the District's General Manager shortly before the 2013 CDO, will make the presentation. He supplied us with the attached summary of his planned presentation.

**RECOMMEN-
DATION:** This is an information item and no action is necessary.

FILE: CW-630976

APPENDIX: Ross Valley Sanitary District presentation summary

Appendix

Applied Asset Management for a Wastewater Collection System: Lessons for Performance Based Regulatory Compliance

Information Presentation by the Ross Valley Sanitation District (RVSD)

RVSD is a wastewater conveyance utility serving approximately 50,000 people in Larkspur, Ross, San Anselmo, Fairfax, and portions of unincorporated central Marin County. RVSD is a member of the Central Marin Sanitary Agency (CMSA) JPA, which owns and operates the regional wastewater treatment plant. From 2006 through 2012, RVSD was experiencing an increase in the number and severity (volume) of sanitary sewer overflows (SSO's), in violation of the 2006 Statewide Order. RVSD had completed a traditional infrastructure master plan, a hydraulic capacity assessment (SHECAP), and SSMP, but it was struggling to implement the resulting list of capital projects and O&M improvements. Lack of progress and resulting SSO's resulted in a series of increasingly severe regulatory actions. In May 2013, following discussions with RVSD to consider a revised approach to meet the regulatory objectives, the RWQCB issued a Cease and Desist Order (2013 CDO) which incorporated infrastructure asset management standards. The three years of steady compliance progress by RVSD through early 2016 demonstrate the potential benefits of applying asset management methods to meet regulatory objectives.

For wastewater utilities, asset management can be broadly defined as managing infrastructure assets at the lowest sustainable life cycle cost, while delivering a target Level of Service to customers and meeting regulatory compliance standards. The 2013 CDO incorporated asset management by requiring RVSD to develop its Infrastructure Asset Management Plan (IAMP). The IAMP incorporated Level of Service targets, risk-based decision tools to prioritize capital projects, condition assessment of gravity sewer mains, pump stations, and force mains; flexibility to rehabilitate or replace sewer mains based on performance criteria and a 4 mile/year average minimum, and on-going re-inspection and monitoring of over 1,000 pipes with significant structural defects. Along with the required IAMP, the 2013 CDO's two other primary components included a requirement to put in place sufficient financial resources to support the IAMP, and for RVSD to consider adoption of a lateral testing/inspection ordinance.

RVSD has made the following progress on each of these three CDO components using the incorporated asset management methods; 100% compliance with the 2013 CDO requirements to date; 95% reduction in annual wet weather SSO volume over three winter seasons, 6.6 miles per year of sewer line replacement and rehabilitation; implemented a 5 year \$95M capital program that currently has over \$50M in improvements in design or construction phase; passed a 5 year schedule of sewer rate adjustments (48% total) and issued \$45M in bonds to date in support the capital program; adopted a sewer lateral inspection and testing ordinance in cooperation with the local realtor community, increasing lateral replacements from an average of 150 to 500 per year; implemented frequency/risk based cleaning schedules for 5,000 pipe sections using CMMS.

Lessons learned to date include the following. Asset management requires a significant investment in tools, technology, and staff training. It is very information intensive, and requires a functioning CMMS. RVSD worked for 5 years to implement effective use of asset management systems. However, that investment has allowed RVSD to meet and exceed the 2013 CDO requirements, and is proving beneficial in meeting the common interest of the rate payers, regulators, management, and elected officials. The benefits realized at RVSD may be transferable in practice to other utilities working to improve regulatory compliance.

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