

SMARTCOVER®

WE'VE GOT IT COVERED™



CALIFORNIA'S OLDEST SEWER DISTRICT STAYS CURRENT WITH LATEST TECHNOLOGY

BACKGROUND

Established on May 27, 1899, the 122-year-old Ross Valley Sanitary District (RVSD) is considered California's oldest district.

RVSD maintains 200 miles of collection sewer lines and 19 pumping stations which collect, pump, and transport over five million gallons of wastewater per day to Central Marin Sanitation Agency for treatment.

Approximately 95% of the district's collection system was installed prior to 1955 and the oldest pipe still in use was installed over 100 years ago in 1905. System capacity demands fluctuate from 5 MGD in dry weather to as high as 50-65 MGD in peak wet weather.

THE CHALLENGE

With aging infrastructure, unpredictable weather patterns, and limited budgets, RVSD experienced escalating levels of SSOs and other major failures during the past decade. This led to a series of regulatory actions and third-party settlement agreements.

The situation came to head in 2013 with a Cease and Desist Order from the California Regional Water Quality Board (RWQCB) that sought to impose a broad-based acceleration of capital improvement projects within five years, with a potential cost to rate payers of over \$100 million.

THE SOLUTION

In response to the Regional Water Board, the district implemented a

series of advanced asset management and sanitary system real-time monitoring technologies. These technologies identify and mitigate key problem areas while simultaneously improving operations and long-term capital planning processes.

These initiatives demonstrated a track-record of transformational change. This change resulted in an agreement with the RWQCB to amend the CDO to support the new system changes, monitoring and asset management programs.

A key element in Ross Valley's success has been the use of SmartCover® real-time monitoring, SmartTrend® management software and SmartRain™ data integration.

The District started with a pilot program of six SmartCover® systems and, based on the positive results, added another 20 systems in July 2016, with annual budgeting to add more each year.



GETTING THE MOST OUT OF A CENTURY OLD SEWER INFRASTRUCTURE

IMPROVED OPERATIONS

SmartCover has helped Ross Valley Sanitation District extend the life of their aging infrastructure while also reducing risk of spills and better targeting the use of limited staff and resources.

According to Stephen Miksis, Acting Operations and Maintenance Manager, "With SmartCover, instead of constantly chasing problems we are able to get out ahead of them through proactive I&I risk assessment and data-driven clean-out scheduling. In addition, our response time for real emergencies has improved dramatically through the real-time monitoring and alarm technology."

"SmartCover has helped drive transformative changes through more effective targeting of our O&M resources."

-- Stephen Miksis, Acting O&M Manager

RAPID RESPONSE TO RAIN

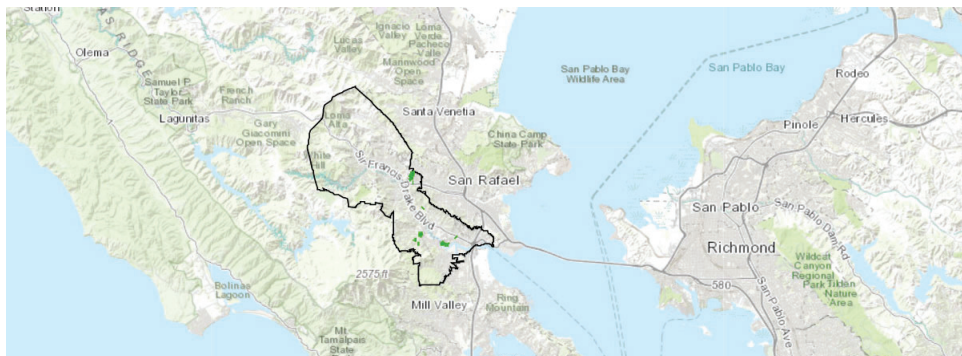
During rain events, Ross Valley is also impacted by an extensive watershed beyond the collection system. SmartRain integration enabled them to graph exactly where the changing rainfall patterns would impact sewer lines.

Mr. Miksis added, "The SmartRain capabilities have also been a life saver during recent historic El Niño conditions. Instead of deploying roving crews to keep watch for problems, we could dispatch them directly to the problems areas ahead of time."

SUMMARY

Located among highly sensitive environmental areas within the San Francisco Bay Area ecosystem, it is vital that Ross Valley Sanitation District is able to manage its aging infrastructure and avoid spills.

SmartCover technology has provided RVSD with the resources to meet those goals, while avoiding massive capital investments and proactively coping with significant rain events.



"The SmartRain capabilities have been a life saver during recent historic El Niño conditions. Instead of deploying roving crews to keep watch for problems, we could dispatch them directly to the problems areas ahead of time."

-- Stephen Miksis, Acting O&M Manager

SmartCoverSystems.com