SMARTCOVER®

FOR SAN ANTONIO TEXAS, CLEANING OPTIMIZATION SAVES BIG

THE CHALLENGE

From 2013 to 2015 San Antonio Water System (SAWS) tackled an EPA Consent Decree with an estimated cost of $1 billion. SAWS adopted the EPA's Capacity, Management, Operations and Maintenance (CMOM) guidelines and instituted high frequency cleaning (HFC) for their 110,000 manholes and pipeline segments.

Effectively this meant SAWS established a program of cleaning "high risk" pipes with potential for overflows, and instituted routine cleanings at monthly, bi-monthly, quarterly, semi-annual and annual frequencies.

THE SOLUTION

To help reduce overflows and mitigate the disadvantages of HFC, SAWS implemented a smart sewer pilot project at 10 monthly cleaning locations from Summer 2015 to Summer 2016.

The pilot used remote sensors that automatically scan water level patterns and issue automatic notification when high levels are detected upstream or downstream from the monitored location. The technology system provides real-time continuous monitoring and trend analysis, allowing SAWS to use data to determine where and when to clean a sewer pipe segment rather than using a predetermined cleaning schedule.

THE RESULTS

Subsequent to the success of the pilot program, in Fall 2017, SAWS deployed an additional 200 remote monitoring sensors at high risk sites for regular monthly cleanings -- as conscientious sewer operators they were planning to clean whether the pipes needed cleaning or not.

SAWS was anticipating nearly 1,300 cleanings at these locations – with the analysis they gathered and the notification system created, they ended up identifying and cleaning only 65 sites. SAWS has experienced a 95% reduction in cleaning, no SSO incidence and certified 216 SSO "saves."

SAWS has experienced a 95% reduction, from 1,300 to 65 cleanings, 216 saves and no SSO incidence.

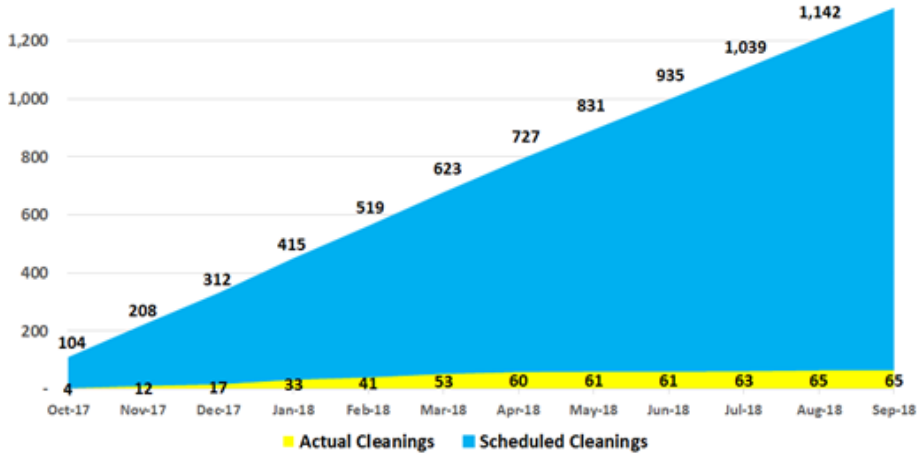
SMART MONITORING ENABLES FUNDAMENTAL IMPROVEMENTS

OVER TIME, THERE HAS BEEN A MAJOR PARADIGM SHIFT FROM "WE ALWAYS CLEAN THIS SPOT JUST IN CASE" TO USING SMART DATA FOR A MORE EFFICIENT "AS NEEDED" BASIS FOR CLEANING.

Based on SAWS estimates of about $500 cleaning cost per segment, the payback time for the monitoring equipment is less than one year, and the net savings is $1,500 to $4,000 per monitored location per year.

For SAWS, the proactive use of data continues to lower cleaning costs while preventing SSOs.

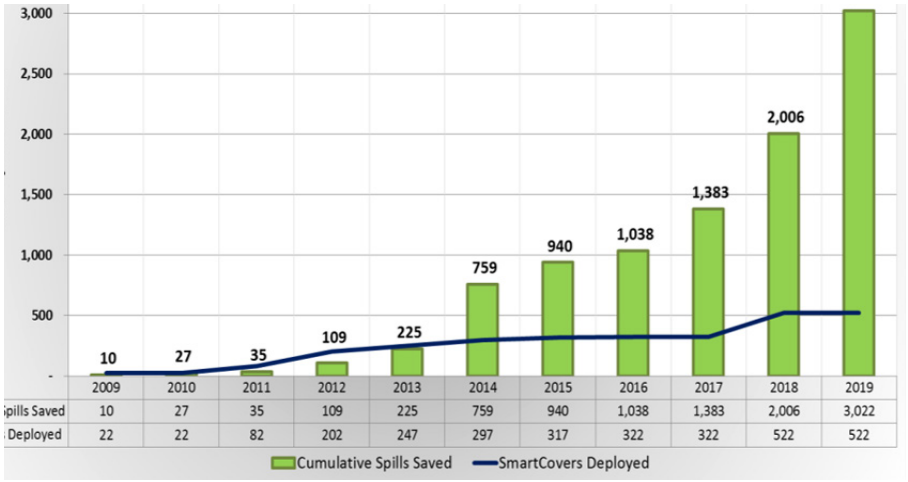
In addition, SAWS' smart sewer solution has witnessed fast payoff and excellent ROI, solved old problems with new technology, extended underground asset lifetime, eased stress on staff, protected lives in the field with no confined space entry, created staff availability for other tasks, lowered pressure on user rates, and significantly decreased operational liabilities.



SUMMARY:

SmartCover sewer monitoring automatically scans remote locations looking for anomalous changes in flow patterns.

Real-time data and trend analysis tools reveal potential issues to users who can pro-actively plan actions. The result is three-fold: operating expense is lowered; asset life is extended and these sites are protected 24/7 from overflows.



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