

SMARTCOVER®

WE'VE GOT IT COVERED™

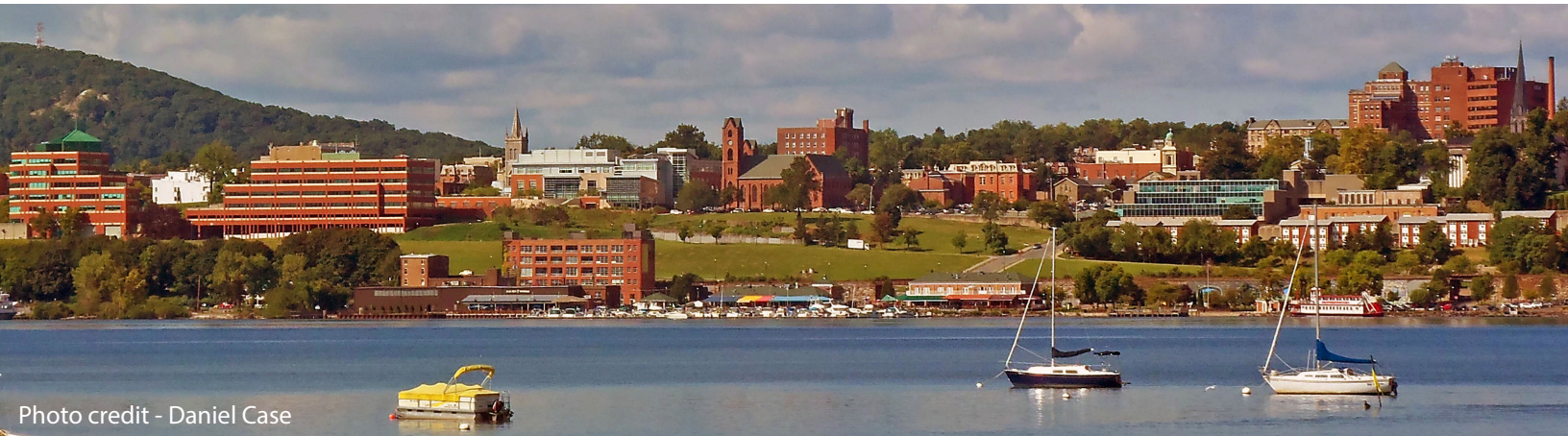


Photo credit - Daniel Case

IN NORTHEAST, CSO CALCULATIONS GO HIGH TECH TO MEET STRINGENT REPORTING RULES

BACKGROUND

The City of Newburgh is located 60 miles north of New York City on the western side of the Hudson River in Orange County, New York. It is a small, densely settled community of 3.8 square miles with a population of more than 100,000 people.

Regulations requiring real-time public notification, reporting and quantification of sewer overflows, are common challenges faced by combined sewer system operators.

THE CHALLENGE

Previously, the City of Newburgh's sewer monitoring system utilized pressure sensors that had to be located at the bottom of the influent channel, which put the sensors in direct contact with the water flow. In the combined sewer environment these sensors would

be regularly damaged or displaced by debris. On numerous occasions under high flow conditions, several entire units were swept away and lost at the outfall. The sensors also required frequent expensive calibration at each installed location, which had to be performed by an independent consultant.

The prior telemetry system utilized a dedicated phone line for each monitoring station with a single point of access and control, located at the wastewater treatment plant. The hardwired lines were expensive to operate and maintain, with a frequent loss of communication, and were very difficult to locate by the utility company whenever service was required.

THE SOLUTION

All these problems were avoided through installation of SmartCover

monitoring systems. SmartCover's wireless satellite connectivity proved more reliable than land phone lines at a lower cost. Online reports are easily accessed by any computer, tablet or smart phone connected to the internet. The two-way satellite communications allows for settings to be adjusted remotely and the mobile app is especially useful when in the field.

Calibration occurs automatically and the system informs staff if, when, and where an overflow occurs and how much water is passing through the outfall pipes. The special sensor design does not require direct contact with the water and withstands surges during severe weather.

THE RESULTS

With SmartCover, Newburgh is able to determine exactly when each overflow starts and stops as well as provide an accurate an accurate calculation of the amount of overflow. This data is then used for timely adherence to reporting deadlines. Public notifications of outfalls into the Hudson River are also now provided automatically in real time through the City website.

SmartCover has eliminated previous problems with sensor cost, calibration and communication by providing high tech flow monitoring and robust satellite communications

DIGITAL REPORTS ARE MORE ACCURATE AND FASTER

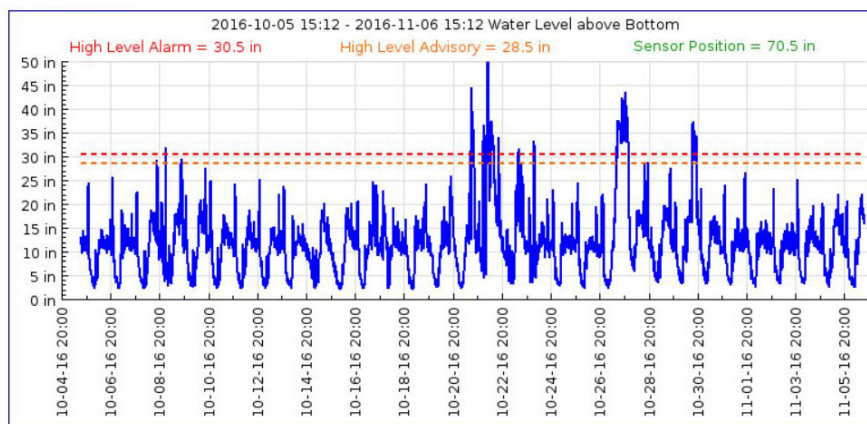
SUMMARY:

Prior methods used by the City of Newburgh to monitor CSO structures and outfalls were costly, insufficient, inaccurate, high maintenance and could not provide timely information.

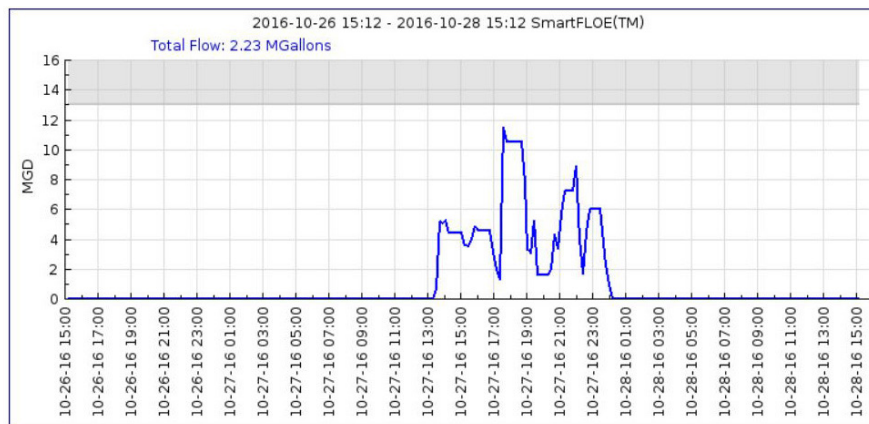
In contrast, SmartCover calculates overflow volume automatically and transmits real-time data via a secure, robust satellite communications network.

This information allows the City to accurately report start and stop times as well as total discharge volume in each overflow, thereby making reporting to the public and authorities quick and easy.

Also, by correlating flow levels and overflow events with rainfall and storm water peaks, Newburgh staff are now able to see the big picture to inform better planning and long-term system management.



Water levels on “wet side” of diversion structure, correlated with rainfall data



Expanded view of overflow event showing start, stop, duration and volume

*SmartCover collects accurate real-time data
for meeting CSO reporting requirements*

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