

SMARTCOVER[®]



PALM BEACH COUNTY, FLORIDA RESPONSE TIME GOES FROM HOURS TO MINUTES STORMWATER CONTROL PREVENTS CANAL OVERFLOWS

THE CHALLENGE

Lake Worth Drainage District (LWDD) is a vital partner in ensuring the continued economic prosperity of the Southwest Florida region, monitoring and controlling a complex system of approximately 500 miles of canals, 20 major water control structures across more than 200 square miles.

In its 100-year existence, LWDD has focused on one goal: keeping the water moving. However, they were not adapted to the new reality of high intensity of storm events.

The District was hampered by an infrastructure mired in an outdated operational philosophy. Lacking a system-wide view of the condition of their canal network and without access to integrated radar, rainfall intensity, and tidal conditions, operators found themselves continuously in a reactive mode, struggling to react quickly enough to protect their customers.

THE SOLUTION

LWDD replaced the human-centric decision and reaction system, with one based on data, information and control. The flexibility and adaptability of SmartCover's design allowed the solution to be customized to meet the needs of the District.

SmartCover integrates with the National Oceanic and Atmospheric Administration (NOAA) rainfall information, regional radar data and tidal information, as well as LWDD's remote-control SCADA system for gate operation. This revolutionized the response time, enabling operators to react to changes in near real-time, while reducing the uncertainty in their decisionmaking process.

THE RESULTS

Moving more water out of the system faster lowers the probability of flooding. The new control system was put to the test by Hurricane Irma in September 2017. Robust visibility on canal status as well as rainfall intensity and duration, enabled the District to monitor its flow control infrastructure, predict peak stages and make data-driven proactive decisions to manage the historic event.

The integrated SCADA, flow and rainfall data allowed the District to minimize the impact of flooding and to operate with no interruption in service before, during, or after Irma.

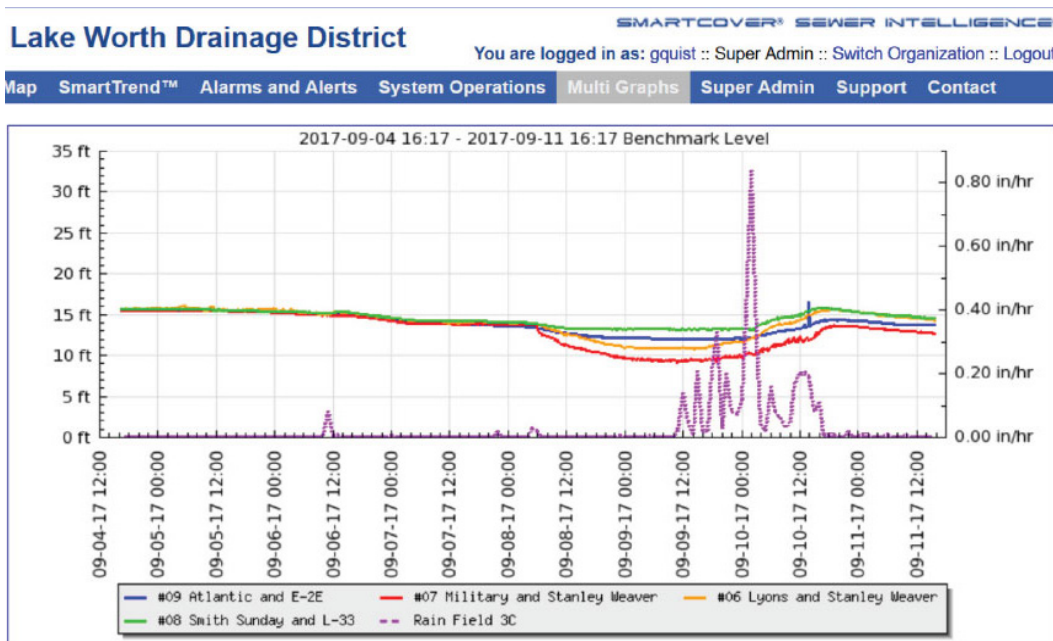
"Before SmartCover, we would drive out to check conditions, call the office, make our operational decisions, drive to the gate, operate the gate... It was a two-hour exercise. With SmartCover we've reduced response time to minutes."

- Tommy Stroud, Executive Director and District Engineer

***DURING A STORM, REAL-TIME DATA
IS MUCH FASTER THAN HUMANS***

LAKE WORTH'S REAL-TIME
DATA SOLUTION REPLACED
HUMAN-CENTRIC DECISIONS
AND STREAMLINED RESPONSE
TIMES.

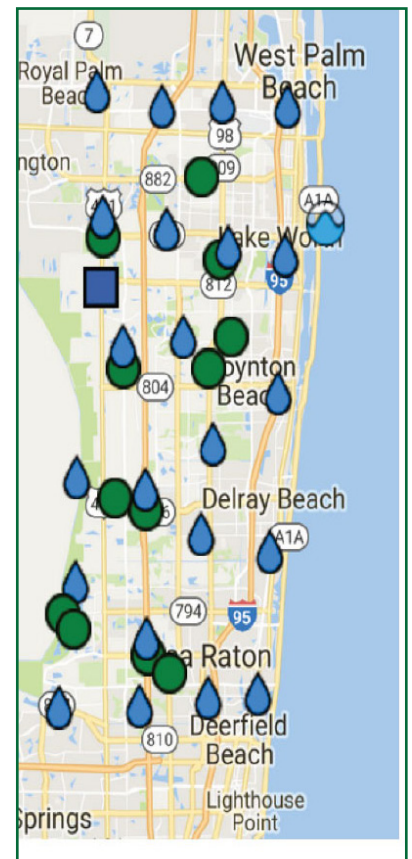
ROI was initially estimated
at about two years,
but the reality was
much quicker



SUMMARY:

Because SmartCover integrates with NOAA rainfall information, regional radar data and tidal information, it has revolutionized the District's response time, thereby enabling operators to react to changes in near real-time, while reducing the uncertainty around dynamically changing conditions in the network.

Working with SmartCover, LWDD is continuing to get more proactive with their operations. Understanding how to prepare the network for upcoming storms and knowing when canal cleaning and maintenance is needed has also meant that landowners served by the District are enjoying lower insurance costs as a result of FEMA-recognized best management practices.



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