

URBAN WATER INSTITUTE NEWSLETTER



Term: Summer | Issue 3 | Date: July 1, 2020

UWI Member Profile: Smart Cover



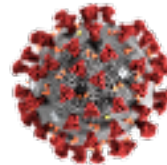
COVID-19 is having a significant effect on wastewater systems across the U.S. Further, limitations on field crews and working from home conditions made staff optimization and crew safety critical while maintaining essential infrastructure.

Urban Water Institute member, SmartCover, distributed their remote sewer monitoring technology and mobile app to sewer operators in order for them to successfully monitor the status of their sewers from afar and keep ahead of spills when systems were inundated by people flushing wipes, paper towels, and other alternatives into their toilets.

SmartCover's COVID-19 Relief Program allowed for wastewater utilities to rapidly deploy 100 remote sewer monitoring systems ... *(see page two for more)*

Utilities & COVID-19

COVID-19: Responding and Rebalancing Financial Plans



Utilities are quickly addressing the effects of the COVID-19 pandemic with decreased commercial consumption and bill delinquency leading to revenue shortfalls. When revenues can't be controlled, utilities adjust what they can – capital investments and operating expenses. ... *(see page two for more)*

Safeguard The Future

The world has been forced to quickly adapt to the “new normal” of COVID-19, from altered personal routines to the large-scale disruption of economies and every aspect in between.

Like our clients, Jacobs revised our operations to protect employees while delivering vital services.

In this environment, bringing innovation to the problem is the path forward. ... *(see page three for more)*

Water Professionals Adapting

Water professionals are an adaptable group. New technologies, new approaches, and new standards arrive almost constantly, and the industry has become expert at integrating new ideas and staying focused on its mission. This adaptability has been on full display during these unprecedented times.

As operators of more than 50 drinking water, water reclamation, water recycling, and groundwater treatment facilities, Woodard & Curran felt first-hand how the pandemic impacted utilities across the country. Facility staff were forced to complete often difficult jobs under increasingly stressful circumstances, but their resiliency has shown through.

By quickly implementing distancing measures, ensuring personal protective equipment was available, and instituting procedures to ... *(see page two for more)*

Smart Cover



(from page one) ...at NO COST to support and multiply their manpower during and we need to make sure they are all well maintained."

"We have Smart Covers we're good!"

"If there ever was a time where we rely on the SmartCover system for early warnings of sewer system irregularities, this is it."

"AWESOME job by Smartcover as a whole to offer this .this time of uncertainty and stress on the country's collection systems and resources.

Many utilities in California and around the country are depending on SmartCover and attributed the system for reliably monitoring their pipes, identifying blockages and successfully preventing sewer spills, especially during this critical time.

Here are a few customer quotes from the field:

"Agencies in our area are seeing considerable amounts of rags due to toilet paper shortage. Another reason to station a SmartCover upstream from a lift station to get ahead of ragged pumps."

"Our current SmartCovers are very vital for how they can help during this time, during these times."

#InThisTogether

Utilities & Covid-19

(from page one) ...They look for efficiencies, making targeted investments, and spending on the most essential needs.

At HDR, we suggest scenario planning to proactively meet these shortfalls and flexibly respond. Our recommendations are:

- Prioritize projects- If you do not have an existing framework, we recommend a multi-criteria or risk-based approach
- Think beyond the immediate as revenue recovery and program response may take years
- Evaluate multiple scenarios including different revenue profiles and recovery timelines
- Communicate long-term needs with elected officials (e.g., deferring rate increases now may mean higher increases later)

Use other tools in your toolbox:

- Use drinking water or wastewater system flow meters to predict consumption changes. Forecasting usage based on winter water months for wastewater bills may not accurately predict consumption
- Use asset management data and predictive analytics to target critical investment needs
- Hold regular meetings with utility departments and stakeholders (especially the Finance Department) to collaborate and review your position
- Communicate often with your stakeholders, and your employees too.

Proactive scenario planning and rebalancing of your financial plan now will position you to nimbly move forward as conditions change.

If you have questions or would like more information, please reach out to Alex Shannon (alex.shannon@hdrinc.com).

UWI Member, HDR authored this article.



Water Professionals Adapting

(from page one) ...limit contact between staff and vendors, customers, and the public, we were able to keep our people safe and provide uninterrupted service to the communities we serve.

Just as the pandemic has made remote meetings the standard for so many, it has also made remote access to treatment facility supervisory controls and data acquisition (SCADA) systems an essential tool.

Utilities with stable and secure remote access to their systems are able to monitor and manage treatment processes from anywhere with internet access. The means that that they can more easily operate at reduced staffing levels, respond to issues more quickly, and troubleshoot problems while protecting staff and maintaining safe physical distance.

Woodard & Curran has helped implement remote access for utilities across the country, and our on-call technicians routinely ... *(see page three for more)*

Water Professionals Adapting

(from page two) ...help solve long-term reliability issues and respond to emergencies. Social distancing measures and travel restrictions that are essential to our collective safety present unique challenges for ongoing work.

Leveraging a range of camera and communications technologies allows us to advance important work without compromising safety.

One example is Microsoft's Remote Assist Mobile, which allows an off-site expert to guide on-site personnel through a video inspecting using a set of interactive elements overlaid on a camera feed from the on-site user's smartphone or tablet.

This is a relatively easy-to-use, low-cost option to provide users with real-time access to remote support staff.

Advanced 3-D camera technology provides another way for remote staff to complete work that would typically require presence at a site.

Using a tool like the Matterport Camera, which produces detailed renderings of a space based on a large number of photographs, we can extract survey-level data to support designs without need for a lengthy site visit.

Combined, these approaches can mean the difference between staying on schedule and potentially lengthy delays

UWI Member,
Woodard & Curran
authored this article.



Safeguard The Future

(from page one) ...Here's a few of Jacobs' recent client-focused initiatives:

A world-first COVID-19 modeling solution - peer-reviewed by the University of Cambridge's Institute for Manufacturing - builds flexible virus propagation and intervention scenarios for remobilization and operational planning.

Across the 100 wastewater facilities we operate - many in California - we launched a **pilot program to monitor wastewater streams**. A simple addition in regulatory sampling quantifies the population impacted by the virus and provides a robust data set for critical decisions. We're exploring partnerships to provide more rapid, accurate testing, early warning systems, sensor technologies and predictive models.

Vacant buildings with stagnant water and uncontrolled humidity are a perfect environment for pathogens, and we've developed **water and air quality remobilization guidance documents** for owners and managers of properties to help businesses and communities safely re-open and return to work and school.

Working remotely and delivering the project in parallel with **COVID-19 vaccine clinical trials**, Jacobs is providing comprehensive engineering/construction management services to retrofit AstraZeneca's West Chester, Ohio manufacturing facility.

These initiatives will aid in the fight against COVID-19 now and potentially minimize public health and economic consequences of future outbreaks - helping our clients and communities prepare for what's next.

UWI Member, Jacobs authored
this article.

Jacobs

In The News

Unusually warm May contributes to expanding drought in the West

One factor in the expanding drought is the fact that May 2020 was the fifth-warmest May on record. This probably exacerbated the dryness and contributed to a number of wildfires, according to the Drought Monitor's summary. <https://www.latimes.com/california/story/2020-06-11/unusually-warm-may-contributes-to-expanding-drought-in-the-west>

Western states are entering an active wildfire season just as coronavirus cases spike

Coronavirus and the West's wildfire season are on a collision course, with the virus on an upswing in several western states that are starting to see increased fire activity, especially those at heightened fire risk during July. <https://www.washingtonpost.com/weather/2020/06/13/western-states-are-entering-an-active-wildfire-season-just-coronavirus-cases-spike/>