Stopping Blockages Before They Become SSOs

In south central Texas, ADS is currently engaged in a four-year flow monitoring project with a local municipality. With the success of ECHO during its launch year, the City decided to install 18 ECHO units in sensitive areas. Upon installation, the City requested that just two of the 18 selected sites have alarms activated. They did not feel the need to receive notifications at the other sites.

ADS Data Analyst, Cynthia Newton, respected the City's wish to not receive excess notifications while acknowledging that valuable information would be missed. Newton took the initiative to activate alarms on all sites, ensuring that the customer did not receive unwanted notifications while still continuously monitoring the locations. Additionally, Newton set the "High-High" ECHO alarm to notify when wastewater was within two feet of the manhole rim and the "Overflow" alarm to notify when wastewater exits the manhole. Although the City focused alarming on a few sites, Newton's decision to receive notifications for each location would soon prove to be a fortunate one.



On March 6, 2018 Newton received a notification that one of the sites detected a depth level exceeding the High-High threshold. Checking the hydrograph she noticed an upward trend and contacted the ADS Project Manager, Chuck Franklin and ADS Field Manager, Joe Freitas.





Newton explained the situation, sharing how she was notified of the alarm, but the City was still unaware. Franklin quickly notified the City who, in turn, promptly deployed their field staff. Additionally, Freitas traveled to the site, arriving before the City's response team and witnessed the impending SSO.

When the City field staff arrived, the situation was assessed. They discovered that the downstream pump station lost power unexpectedly, which resulted in the collection system backing-up and setting off the alarm. The situation was remedied and what may have been a high-impact event was fortunately minimized due to the preemptive actions taken by the ADS team and the City field staff.

Thanks to Newton's foresight and customer-focus, the precision of ECHO, and the decisive action of Franklin and Freitas, the City avoided what could have been a major incident. Even more, the ADS team demonstrated first-hand the commitment to a customer's best interest.





About Pump Station Back-up Monitoring

Wastewater pump station overflows occur for a variety of reasons including power outages, partial or fully clogged pumps, faulty sensors or controls, and SCADA alarm failures. By design, many of these pump stations receive influent from a variety of upstream sources and can have significant flow volumes. Consequently, overflows can occur quickly and with significant volume. When located near waterways or commercial areas, the result of pump stations becoming backed-up an be extremely detrimental.

A simple, inexpensive, and effective solution to lower pump station overflow risk is to use an ECHO upstream from the pump station. Whether there is a power, generator, SCADA alarm, or pump failure, ECHO provides an independent and reliable means to alert the utility and avoid the consequences of a pump station overflow.

