Lift Station Backup During Power Outage Prevents Spill into Pacific Case Study

Background

The City of El Segundo, CA is a hidden beachside gem in a unique corner of Southern California. With friendly, small-town charm and an ever-growing community of diverse businesses, El Segundo is a thriving coastal community and a 5.5 square mile economic powerhouse.

As the home of the Los Angeles Lakers and LA Kings, the city is the epicenter of Southern California sports culture. The new nearby multi-billion-dollar stadium that is close to completion, home to the 2022 Super Bowl and 2028 Olympics, the city is ready to welcome sports enthusiasts from around the world.

The Challenge

At approximately 2AM on New Year's Day, a drunk driver on El Segundo Boulevard collided with not one but two Edison power poles. This knocked out the power to more than 4,000 SoCal Edison customers in the city of El Segundo.

"Unfortunately, seven of my sewer lift stations were without power," said Gil Busick, Wastewater Supervisor for the City of El Segundo. "We had previously disabled telemetry communications at three of the stations because of unrelated ongoing alarm issues."

The Solution

SmartCover units alerted El Segundo with level measurements on emergency on-call phones. The alarms enabled them to prioritize which lift stations were the most critical to respond to with backup generators and emergency pumps. Part way through the 18-hour outage, the power was temporarily restored and the generators and pump were broken down and put away. On call employees returned home, only to receive alarms an hour later.

"Apparently, the temporary restoration was short lived as other parts of the electrical distribution system were overloaded and were knocked out as well," said Busick.

Highlights

- Units alerted of level measurements to emergency on-call phones
- Alarms enabled teams to prioritize most critical lift stations
- Real-time monitoring combined with quick response prevented a catastrophic environmental outcome in the Pacific Ocean
- Rapid response with targeted actions throughout an outage, avoiding a major spill



Figure 1: A drunk driver knocked down two power poles

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"Any spill from a lift station would be catastrophic as the volume from a wet well would be much greater than a typical SSO and the City of El Segundo is directly adjacent to the Pacific Ocean." states Busick.

The Results

Three staff members shuttled two generators from station to station, and emergency generators were redeployed. With the power outage, internet was also down.

"I used my smartphone to access the SmartCover website. This worked out really slick as I could check levels at the different stations and know where to tow the generators next." Busick explained.



Figure 2: Rapid action protected the environment at El Segundo Beach



Figure 3: Real-time data shows alarms during power outage

Protecting the Pacific Ocean was critical. Real-time monitoring combined with quick response avoided a catastrophic outcome.

Conclusion

When an unexpected emergency happens, wastewater operators need to have systems in place that can provide real-time information in tough conditions, such as power outages.

Because El Segundo had the foresight to invest in SmartCover monitoring ahead of time, they were able to respond quickly with targeted actions throughout the outage and thereby avoid a major spill and an environmental disaster.

