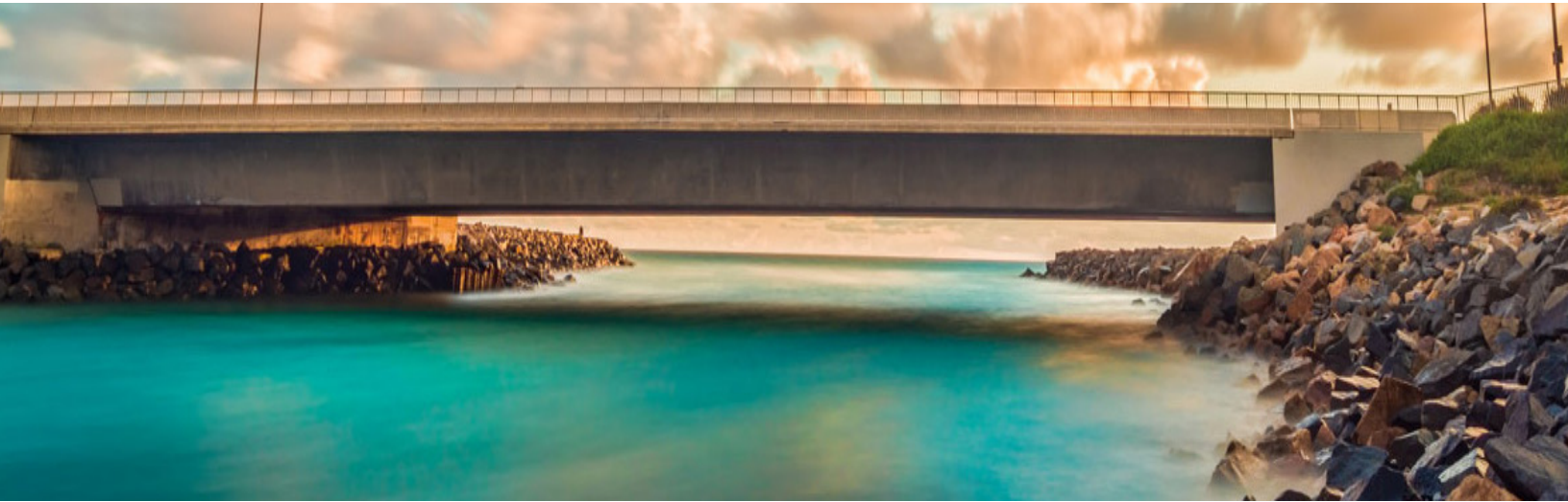


SMARTCOVER®

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H₂S MANAGEMENT FUELS MICROBE SYMBIOSIS AND STOPS ODORS

BACKGROUND

The Southern California cities of Vista and Carlsbad are members of a joint powers agreement governing the Encina Wastewater Authority, which serves five jurisdictions in the San Diego area by providing wastewater treatment.

Sewer mains run from Vista through Carlsbad before reaching the Encina treatment plant located on the coast near Carlsbad Beach. Just before the Encina treatment plant, the lines pass through a lift station located near the Agua Hedionda lagoon where many businesses are located and with frequent public access.

THE CHALLENGE

Vista, Carlsbad and the Encina Wastewater Authority were all concerned about the issue of excess H₂S causing odor problems at the lift station impacting businesses and the public within the 400 acre Agua Hedionda lagoon area.

This critical watershed supports a variety of community uses including a YMCA day camp, recreational boating, a mussel and oyster aquaculture facility, a white-sea bass hatchery, a desalination plant, and a power generating plant.

Effective H₂S management is key to avoiding unacceptable odors.

THE SOLUTION

To control H₂S levels and eliminate odors, a biofilter was installed at the lagoon lift station. The biofilter pulls air from within the lift station and microbial colonies use the H₂S as a food source and convert it to harmless byproducts.

However, because the microbes require H₂S levels at a specific range to survive, SmartCover's H₂S monitoring was installed to track and help maintain the delicate balance of H₂S at the optimal range for the microbes to thrive.

THE RESULTS

The combination of the biological odor control system and SmartCover H₂S monitoring enables the treatment plant staff to proactively avoid H₂S-related odor issues within the lagoon area. Continuous monitoring by SmartCover also helps with maintaining the proper H₂S levels entering the biofilter to keep the microbial colonies healthy.

Since deploying SmartCover's H₂S solution, odor complaints have ceased.

"SmartCover's H₂S monitoring helps us keep the biological odor control system healthy and operating at peak effectiveness."

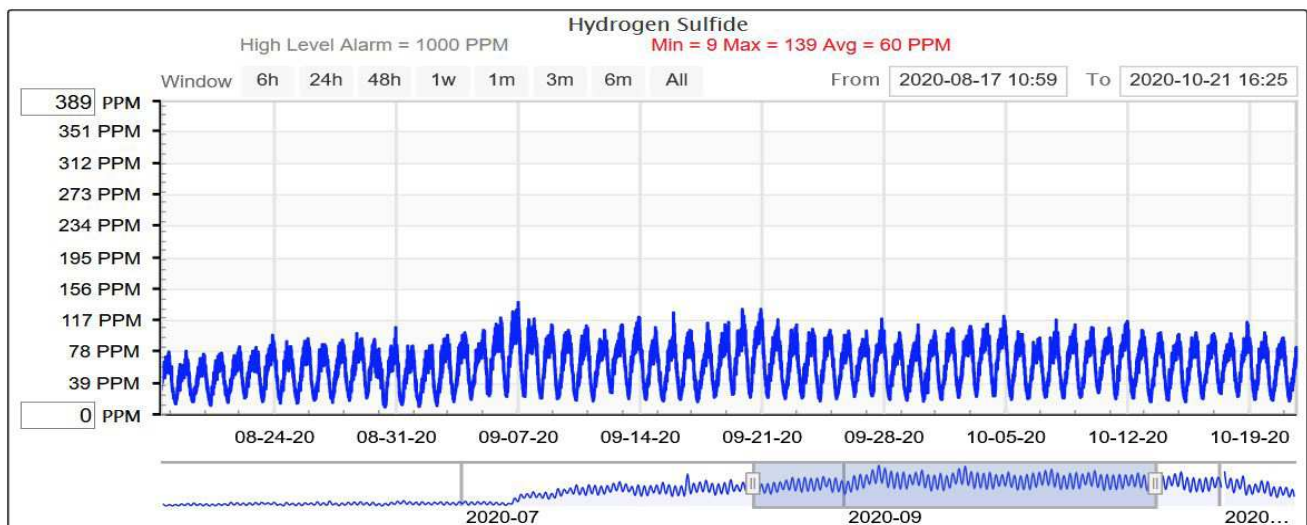
-- Chris Dzwigalski, Wastewater Supervisor - City of Vista

EFFECTIVE H₂S ODOR CONTROL REQUIRES COLLECTIVE ACTION

SUMMARY:

The cities of Vista and Carlsbad in Southern California collaborated with the Encina Wastewater Authority to deploy a low energy and environmentally friendly biologic odor control system.

This innovative collaboration enables all three jurisdictions to jointly and proactively manage H₂S levels and avoid odors impacting the public and surrounding businesses. Integrating real-time H₂S monitoring and advanced trend analysis software from SmartCover helps keep the biological odor control within specified parameters to avoid microbe die-off and maintain an effectively operating odor control system.



*Proactive H₂S management creates
symbiosis for delicate wetland*