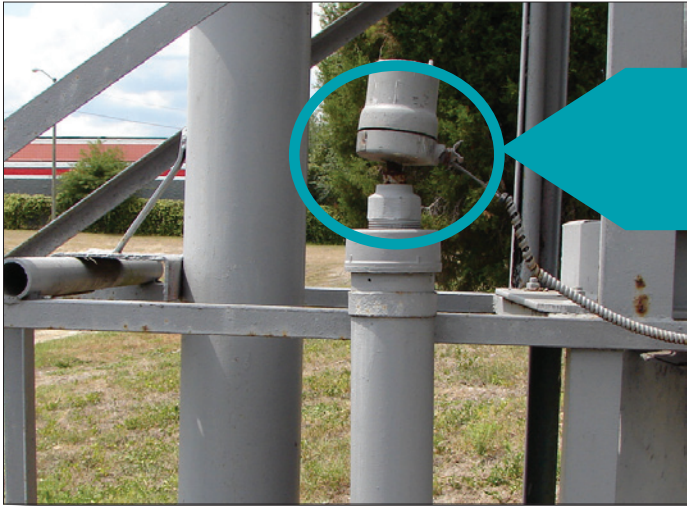


Case Study

City of Zephyrhills

MultiTrode Provides Reliable Stormwater Pump Controls



The Problem: Unreliable Level Sensing Switches

A Call For Help

The City of Zephyrhills Public Works, Street Department, is responsible for maintaining the city's stormwater and drainage systems. Rob Funnell, Supervisor of the Street Department, contacted MultiTrode looking for a more reliable level sensor and pump control system. Mr. Funnell wanted a simple method of detecting water levels that required no moving parts and minimal maintenance. MultiTrode was able to assist the City of Zephyrhills with this challenge.

The Solution

Jamie Saxe, MultiTrode Regional Sales Manager, suggested the installation of 2 independent Simplex Pump Controllers (MTR with 2 Single Sensor Probes) for each pump.

The beautiful City of Zephyrhills is known for its cattle ranches, citrus groves, poultry farms and the Zephyrhills bottled water company. In this quiet community of 12,000, MultiTrode was able to provide a simple yet pragmatic stormwater application.

Zephyrhills is located in Pasco County, on a ridge that divides the Hillsborough River Basin from the Withlacoochee River Basin. Lake Zephyr, an integral part of the City's stormwater drainage system, eventually flows south to the Hillsborough River. Although most of the City is drained by surface swales, their structural drainage system includes 2 retention ponds with pumps, emergency generators and force mains. The larger pond is East off US 301 and North of 6 Avenue. The smaller pond is West of 1 Street and South of 14 Avenue. Both ponds are almost completely utilized.

The Challenge

The larger stormwater pond acts as a reservoir, temporarily collecting surface water run-off from surrounding streets. Two large pumps transfer the water to Lake Zephyr, located approximately two miles from the collection area. Last year, level switches controlling the two 40 horsepower pumps failed and the water level rose high enough to cause flooding in surrounding streets and a fire station.



The Test

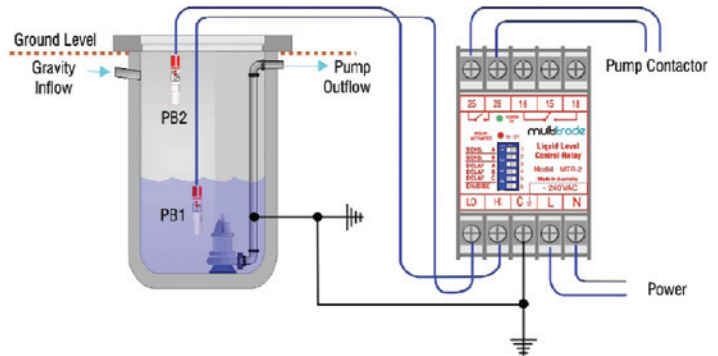
A few weeks after installation, Zephyrhills experienced heavy rains. To be precise: 2 inches of rain fell within an hour. Rob noticed that the streets were flooding and rushed to the pump station. He was happy to find the pumps running just fine. Later, he discovered the stormwater drains had been clogged by new landscaping mulch, which had floated into the drains. Imagine his relief when he saw both pumps operating exactly as MultiTrode specified.

Moving Forward

As part of their regular maintenance procedure, Rob's staff tests their pump operation by simply dropping the high level (pump on) Single Sensor Probe into the water, and the pump starts. Each Simplex Pump Controller (MTR) has an on delay setting of 15 seconds, so ripples in the water do not cause a premature pump start. The Probes are easy to maintain. Unlike the City's original float switches, MultiTrode Probes do not have moving parts, so they are not subject to failure.



Product Spotlight: MultiTrode's Probe and MTR



Probe

Proven to be the most reliable and cost-effective liquid level sensor available, the Probe was designed for the tough and turbulent conditions encountered in sewerage, and works in any conductive liquid. No electronics and no moving parts means there is nothing to fail – that is why we provide a 10-year warranty.

MTR

The MultiTrode Relay (MTR) provides pump control in combination with the MultiTrode conductive Probes. The MTR has been proven in several applications including: Wastewater, Stormwater, Industrial Effluent and Sullage Pits.

Adjustable conductivity settings and delays give the MTR the flexibility that other simplistic relay systems lack. The MTR controls one pump in a fill (pump up) or empty (pump down) application.

Details about MultiTrode's products and services can be found at www.multitrode.com.

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