

Case Study

Cellular Tank Level Control

Company Profile

This customer is a small municipality in New Jersey.

Challenge

A customer was installing a new domestic water tank for its citizens at a remote location at the top of a hill. The pump lift station that brings water to the tank was located one-half mile away and at a much lower elevation. The pump controls were obsolete and operated off two float switches which were disposed of with the old water tank. The township wanted the ability to know the tank levels and control the pumps, which would allow them to adjust the tank level setpoint at any time.

The remote nature of the application within a residential, wooded area negated the ability to use line-of-site radios, and a project to excavate and bring communications wiring between the two sites was impossible. Remote access was desired, as well, for local management.

Solution

Rawson/Industrial Controls provided a cellular communication system to connect the new tank location to the pump house as well as provide remote access to the end users. A reflective ultrasonic level transmitter was provided to measure the water level in the tank, while being immune to temperature and condensation effects. A panel-mounted controller was provided to cycle the two pumps to maintain the desired level while balancing runtime hours for each pump. A cellular RTU communicates the tank level and control signals to the pump house to control the pumps. Remote cellular access is provided with basic viewing capability.



Results

Rawson/Industrial Controls' understanding of the water industry and the challenges faced by instrumentation and controls in the northeast climate helped us to craft a system that will be reliable and flexible for the end user to grow with.

