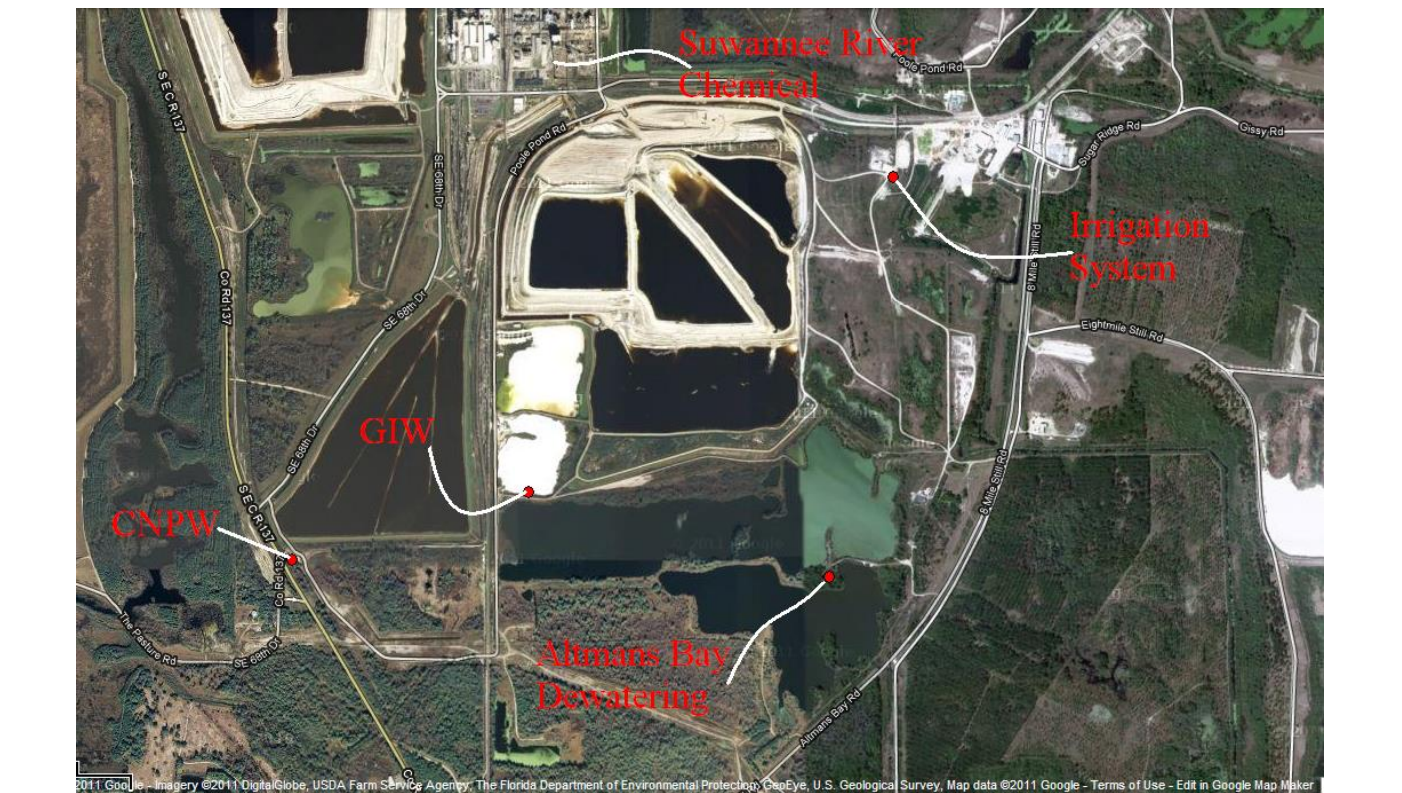


Industry: Mining
Product: M1115NL (DAWN – Wireless I/O Radios with enclosures)
AXF Magnetic Flow Meters

Introduction

The plant consists of numerous outfall meter locations. These remote locations need to be monitored and the flow signals brought into the DCS system. There is AC power available at each site, but currently no way to bring back analog signals along the existing infrastructure. Each location will have a Yokogawa AXF Magnetic flow meter installed. The (4) sites listed below will need to be connected to the Suwanee River Chemical Plant. There will be more sites added in the future.



Benefits

- The M1115NL meshing radios accept up to (4) analog 4-20 mADC signals and (8) DI/DO per remote radio.
- The 900 MHz signal should have no problem covering the distance of up to 3 miles.
- The meshing radios are self-healing and can be used as either I/O radios or repeaters or both.
- Omni antennas will be used at the DCS site and the (2) remote sites that can connect. Yagi antennas will be used in the other remote sites and aimed to the repeater sites. This will allow remote monitoring over long distances and to other remote sites that will be added later.
- The M1280ED enclosure will be used for all remote sites because they are exposed to the elements.

Requirements

- To gather (1) 4-20 mADC inputs from the remote AXF outfall meters and transmit wirelessly to the main DCS site with analog 4-20 mADC outputs
- The main DCS site will require 4-20 mADC signal outputs from the radio at this location.
- Each remote site has 120 VAC power available, but will need 24 Volt power for the radio.
- A 40 ft. pole will need to be installed at each location to mount the antennas.

Solution

The M1115NL meshing radios will work well because only (2) of the (4) sites have LOS and wireless signal strength back to the main plant. The meshing will allow the other sites to connect automatically through the radios that have LOS and use them as repeaters to the main plant.

Conclusion

This will give the customer the best solution for the cost, based on the requirements of the wireless system. The system will be scalable in the future for any remote sites added.

Yokogawa has a proven track record of delivering reliable, scalable and open technologies for a century. DAWN wireless solutions address the specific challenges of the industrial automation industry while lowering cost of ownership for our end users and maximizing their return on investment.

