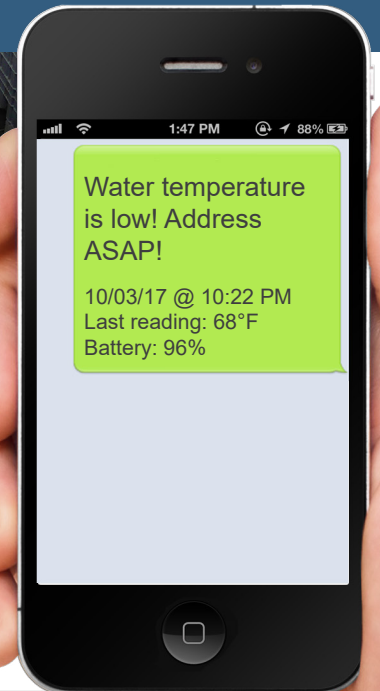




The Leader in Low Cost Monitoring Solutions



Wireless Sensors Use Case: Fish Farms / Aquaculture

The Problem:



Monnit was recently visited by a local business owner. He was frustrated with a competitor's temperature alerting product he had purchased that was performing poorly. Josh with Crystal Springs Fisheries uses 180-degree geothermal water from a 1000' well to breed and grow exotic fish which he then sells all over the world. This geothermal water is warm and nutrient rich, not only keeping the fish alive year-round, but also creating extremely healthy fish with vibrant colors. The only potential issue is the geothermal water supplied from the 1000' well requires piping to remain running and equipment to ensure proper temperatures. Due to the constant running water, there is much higher humidity inside the greenhouse compared to the dry outside air.

Crystal Springs Fisheries' attempt to use another manufacturers device was hampered due to the high humidity of the environment. The device used to transmit data malfunctioned and no one was alerted to the potentially devastating effects of an improper temperature balance in all the tubs, runways and sinks. While nothing ended up happening that night, Josh was very concerned when he learned of the failure. In the case of an issue with the geothermal well, the hatchery uses generators to keep water temperature consistent and fish alive, but there has to be immediate action. An entire hatchery can be lost in a few hours. Every minute counts when it comes to alerts regarding the water temperature.

The Solution:



After this potential business crippling event, Crystal Springs Fisheries contacted Monnit to discuss wireless sensor options. There are a couple of key features that stood out from previous systems Josh had used. The first is Monnit's industrial housing, which comes in an IP65, NEMA 4X, CE rated, sealed, and weatherproof enclosure. These sensors are able to work flawlessly in harsh environments, the higher levels of humidity and temperature probes being in water are not a problem. The second key feature is Monnit's notification and alerting system which is able to send communications to any internet-enabled device. Not only is Crystal Springs Fisheries able to receive notifications should the water temperature drop below safe levels, but also receive alerts should the cell gateway not be able to communicate with one of the sensors. While this situation would be rare on a Monnit network, it provides users with complete peace of mind. Josh can sleep easier at night knowing his business is protected from all angles.

Wireless Products Used

Wireless products used:	How they are used:
ALTA Cellular Gateways	To communicate with a group of wireless sensors and relay information to the iMonnit online sensor monitoring system.
ALTA Industrial Wireless Temperature Sensors with Probe	To monitor and track temperatures of water in fish tanks.

The Result (Cost Savings)



For a fraction of the cost compared to other solutions, Crystal Springs Fisheries was able to implement sensors at both their hatchery and separate warehouse store. These sensors monitor hundreds of thousands of dollar's worth of fish inventory, all of which could be wiped out in a few hours should the water temperature drop. For less than a couple thousand dollars, Josh is receiving peace of mind with around the clock monitoring of his hatchery's environment. No more middle of the night trips to check on inventory!



"Monnit's industrial sensors work perfectly in our hatchery where water and humidity have been an issue for other products we have used. Their products are durable and reliable. I can sleep easy at night now, knowing that I'll be notified immediately if water temperatures at various locations in our hatchery or store need attention."

- Josh Davis, Owner

It doesn't matter where in the world you are or what time it might be, deploying a Monnit wireless sensor and monitoring solution connects you from anywhere, 24/7 so you'll know immediately when a problem starts.

For information about our products or to place an order, please contact our sales department at 801.561.5555.

Visit us on the web at www.monnit.com.



Monnit Corporation
3400 South West Temple
Salt Lake City, Utah 84115
801.561.5555
www.monnit.com