

water sense



WATER MANAGEMENT SOLUTIONS

WINTER 2008

District Test Drives 'SMART' Irrigation Control, Then Decides

The Snowline Joint Unified School District is located in the San Bernardino County of Southern California. Before the fall of 2003, managing irrigation controllers for over 12 sites was time consuming. It would take over three hours to shutdown multiple controllers for rain or winter freezing. Calculating multiple fields' station run times, each fed by the same point of connection with limited volume and pressure, was a lesson in matrix mechanics. By far, one of the most frustrating problems was unauthorized changes to programming, with the same response; no one would admit to the changes. Dress lawns would irrigate during school passing periods, soaking children and teachers. Sport fields run times would far exceed requirements, leaving run off, standing water, and mud patches for children hoping to play sports. Soon the Director of Maintenance and Operations, Mike Schene, realized that technology existed to remedy all of these problems.

The District decided to make trial runs using different Irrigation Management Systems (IMS). Two demo sites were chosen. The first site, the Malpaso practice field, would offer the challenge of irrigating multiple fields fed by a single point of connection with limited volume and pressure. A Calsense ET2000 irrigation controller was loaned to the District and set up at this location. The second demo site, the Serrano High School sports fields, offered the challenge of irrigating fields of high use with



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limited time to run. A Rain Bird ESP-MC controller was loaned for this site. Immediately, technological problems occurred at both locations.

At the Calsense site, an error occurred with the controller software calculation. Within a week, both the Calsense technicians and representatives investigated and addressed the problem. Calsense simply updated the software chip or ROM within the controller, made some minor adjustments within the programming, and demonstrated how to use the Calsense FlowSense Management technology, solving the problem. This demonstration of technical support and service verified the dependability and reliability of not just the SMART controller but the company behind it.

At the Rain Bird site, an inefficiency of run time settings was determined to be the fault with a reliance on central control. Central control software was loaned and uploaded onto a district computer but still the ESP-MC controller had issues. It was then determined to be the fault of flow variations so a flow counter, a flow pulse transmitter, and a flow pulse decoder were loaned to the District. It became apparent that multiple

parts would have to be added to solve the problems. This would result in spending additional money to remedy the problems.

In 2005, the project to centralize went to bid, and was awarded to Calsense. Due to Calsense's excellent service and response, confidence of the project's success was high. Now, all but one site is monitored and protected by Calsense smart ET-2000 and ET2000e controllers. Using the Calsense technology the District is able to handle all the issues faced before the upgrade took place. Irrigation problems like breaks are being detected and reported, and weather monitoring is being used to adjust run times automatically. The next level is being taken to accurately account for all water use of the District's irrigation systems. The proof of cost effective water use in irrigation and the resulting savings in the budget, is justifying the purchase of the Calsense Irrigation Management System.

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