

water sense



WATER MANAGEMENT SOLUTIONS
SPRING 2016

Educating Young Minds on Water Management Through Practical Experience

The last 15 years as a water manager have been spent installing and operating central control systems for various school districts in Utah, and for the most part with one specific manufacturer. Unfortunately, the lack of software generated reports, web-based capabilities and the field unit's inability to effectively learn flow rates are some of the items that have failed to keep up with the industry. The difficulty of installation and troubleshooting numerous components forced the need to investigate new technology; powerful with automation, yet flexible and easy to use. The Calsense models ET 2000e and CS3000 controllers are a breath of fresh air because of their field power, machine intelligence, and product engineered so well and intuitive that 11th and 12th grade students managing district water have no problem operating them either in the field or remotely from a computer.

As the Energy Specialist for Canyons School District, I have eight student water managers that are employed by the District each summer to help manage the landscape water for 46 schools. The importance of having a reliable and simple to operate system is imperative. The Calsense product allows students the opportunity to implement and monitor their field work. The students record the quantity of sprinkler head types, nozzle size, turf root depth, soil type, and sun



Canyons School District Water Interns

exposure. The students use this information to determine the precipitation rates, station estimated flow rates, proper station run times and monthly irrigation schedules based on historical ET data. This data can easily be entered into the Calsense software so that the system can operate as a stand-alone schedule which the students have written, or as a more automatic system utilizing daily ET values provided by the software through the internet.

Operation using daily ET only occurs for the most part when irrigation systems have close to matched precipitation rates. This way the students get to watch how their run time schedules actually perform as compared to ET. When hydrometers are installed, the students access the reports daily to view the amount of gallons used, what the learned flow rates compared to the actual are, and whether the flow rates exceeded or were less than the expected. Once the reports are reviewed, the students head out to the field to check the zone's identified with issues. Utilizing the Calsense hand-held, radio transmitter they diagnose each zone as to the flow rate, amps to the valve, and run times programmed. The students know that changes can be made using the transmitter, or at the controller, or at

the office computer.

As one would imagine, classroom education lacks the skills learned in the field based on practical applications, and that students learn quicker when given the proper tools. Making an effort to calculate proper irrigation is promoted but mistakes are made; that is how one learns! As the students begin to observe their run time schedules, adjustments are made easy by the user-friendly, Calsense programming. In many respects the students don't realize the luxury they have using such well-engineered, smart and reliable equipment such as Calsense, but I certainly do and appreciate the Calsense reliability and proven results that both the product and company provide!

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