

water sense



WATER MANAGEMENT SOLUTIONS
WINTER 2016

The Successful Path to Central Control

Thirty years ago my career as an irrigation technician began with Jefferson County Schools in Colorado. My immediate supervisor talked about someday able to control irrigation from the watch on his wrist. This was before I knew what defined a precipitation rate.

Several years later tasked with operating the District's first computer control system, the company went out of business before the year ended. This unfortunate event diminished District interest. The supervisor with the magic watch developed a conservation program to better irrigate, using precip. rates and historical weather data. Each month, six irrigation techs spent three days traveling to 165 sites to reprogram controllers. Zero irrigation repairs for those days caught the interest of the District again.

In 2008, two high schools were remodeled and installed with central control utilizing bond money. The manufacturer stated that the technology could combine irrigation of zones using flow rates to shorten water windows. Two years later it still didn't work due to site elevation changes and unstable flow as explained by the vendor.

Saving on labor to reprogram stand-alone controllers finally became a priority. A plan began to demo for one growing season, technology for "remote" access reliability, ease of use, factory support/training and flow management to shorten the water windows for the large sites. Several vendors approached, but



Bear Creek High School, JEFFCO Public Schools, CO

more interesting were the ones that would not. It took two years to make the decision to select Calsense. Although new to Colorado, the product met all expectations and more. Working with Calsense reps directly, not with a vendor, created a reliable and comfortable way to learn. Voice mails are returned promptly, emails replied along with a follow up phone call, with site visits every other month.

Retrofitting middle and high schools were first priority and in 2014 grant money received from Denver Water assisted the District in expanding the Calsense central. Using the District's Ethernet network allows programming changes in seconds rather than investing in manpower and F-350 horsepower, and without reoccurring, subscription charges. The FLOWSENSE feature unique to Calsense shortens the watering windows amongst controllers by irrigating multiple zones at the same time using the mainline capacity, while still detecting individual station breaks. A majority of systems are over 20 years old, and in the past needed 12 plus hours to water. In a school setting where the day begins at dawn and outside activities end after the sun sets, eliminating daytime watering to decrease vandalism is crucial.

Rain buckets located at several high schools, suspends irrigation during rain events, but also measures rainfall amounts across a large district. Currently ET is provided by Calsense through the internet to automatically calculate runtimes; however ET gages are being installed to provide real, on-site data for greater savings. Irrigation is still not controlled by a wrist watch, but automation, powerful reports and mobile with a laptop offers great flexibility to effectively manage resources.

The vendor that sold the 2 systems back in 2008 stated once, "you can make any system work for you." I am sure this is an accurate statement; however as a user of just one, I have found the partnership we receive along with the technology is priceless and I am confident the one we have with Calsense will bring JEFFCO Schools into the 21st century!

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