

Eugene School District, Oregon



IRRIGATION CONSULTANT

Water Wise LLC

END USER

Eugene School District

RAIN BIRD PRODUCTS:

- Maxicom²® Central Control
- ESP-SAT Series Controllers
- ESP-Site Satellite Series Controllers
- Cluster Control Units (CCU)
- WS-PRO 100 Weather Station
- Communication Devices
 - RBDS-MPX Ethernet Multiplexer
 - RBDS-PME, RBDS-CME, RBDS-SEMET (Wired devices)
 - RBDS-PMW and Spread Spectrum Radio 900mhz radio (Wireless devices)

“Water Wise demonstrated how using the school district’s computer network would deliver modern, reliable communication and be a cost-effective solution. They enabled us to capitalize on unused capacity of the Maxicom equipment we already owned. We didn’t have to buy more CCUs for smaller schools we wanted to bring online.”

— Kirk Gebb

Project Manager, Eugene School District

PROJECT OVERVIEW:

Eugene School District had installed ESP-SAT Controllers at its schools but had only partially deployed Maxicom²® Central Control and Cluster Control Units (CCUs). The school district was using a combination of phone line for primary and two-wire for secondary communication, but they had problems getting all components to communicate properly. Water Wise LLC, a central control and water conservation consultant, guided the district to use Internet Protocol (IP) Ethernet and their wide-area network to modernize the communication system. This allowed them to maximize the capacity of existing equipment and save money.

CHALLENGE:

The school district’s problem stemmed from having an incomplete communications plan which didn’t initially take advantage of the Ethernet and their wide-area network. Ethernet is more reliable and versatile as compared to phone line and two-wire communication. However, at the time of the initial installation expertise about how to deploy Ethernet communication with Maxicom wasn’t readily available.

RESULTS:

Water Wise helped the school district reconfigure Maxicom and the existing equipment. They created a new communications plan using the school district’s Ethernet network and IP on both primary and secondary communication to bring the ESP-SAT Controllers online with the CCUs, and connect the CCU and ESP-Site Satellite Controllers to the Maxicom computer.

CCUs act as the computer in the field and are able to manage multiple clocks or sensors. The CCU communicates with Maxicom and stores schedules, monitors flow rates, and sends commands to the satellite controllers to start, cancel or pause irrigation schedules.

“It is not logistically possible to connect schools that are miles apart using two-wire communication. Thus, over 50% of the CCU channels were unused. By using Ethernet we could utilize all CCUs to full capacity and bring smaller schools online without buying more equipment,” says Rick Wagner, Principal at Water Wise.

Water Wise also showed the school district how to use an iPad as a field remote to test and manage the system. This eliminated the need for radio remote receivers, saving \$22,000. “Field staff has become more efficient because they can carry the tablets home and know immediately at any hour of the day if flow alarms or other issues need their attention,” says Kirk Gebb, Project Manager for Eugene School District.