

## Barrel Springs Elementary School in Palmdale, CA Achieves Water Savings of 25%

By installing PRS-Dials at the valves to reduce water pressure, the school is helping to reduce their water use to meet California's regulations.



Before



After

### Project Details:

#### LOCATION

Barrel Springs Elementary School,  
Palmdale School District, Palmdale, California

#### IRRIGATION CONTRACTOR

District Staff

#### RAIN BIRD PRODUCTS USED

- PRS-Dial
- Maxicom Central Control
- 3500 Series Rotors
- 1804 Spray Heads
- 1806 Spray Heads

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- Dan Swift, Palmdale School District,  
Assistant Director of Maintenance and Operations

### PROJECT OVERVIEW:

In the City of Palmdale, California, water use reduction is a top priority. To aid in this effort, the Palmdale School District looked for ways to reduce its water usage with easy and cost-effective retrofits to its existing irrigation systems. One of the opportunities the district saw was to regulate and reduce the high pressure of incoming water. Reducing water pressure reduces the flow rate of the system, helping save water.

### CHALLENGE:

At Barrel Springs Elementary School, the pressure is 90 psi, which works well for the large rotors installed on the sports fields but far exceeds the optimal pressure for the 3500 series rotors and 1800 series spray heads used to irrigate smaller areas of the campus. To test the benefits of reducing incoming water pressure in these areas, Dan Swift, the district's assistant director of maintenance and operations, chose to install PRS-Dials to reduce the water pressure to 45 psi for rotors and 30 psi for sprays.

### RESULTS:

Before the installation, the district used its Maxicom Central Control system to record the flow rate of each of the 24 test zones. A PRS-Dial was installed at the valve on each zone, and the installation took about 10 minutes per zone.

After installation, the flow rate for each zone was measured and compared to the pre-installation rates. The results showed an impressive average water savings of 25 percent, which amounts to 3,536 gallons per irrigation cycle. In a year's time, this school will save over 445,000 gallons of water and save over \$3,000 in water costs making the payback period less than 5 months.

PRS-Dials also eliminated the misting and fogging at the heads caused by the high water pressure. Misting is a water waster because the fine water droplets are susceptible to wind drift and evaporation. Operating at the optimal water pressure also helps reduce water hammer, which increases the longevity of the system.

The PRS-Dial proved to be successful at accomplishing the district's goals. "We were looking for an easy and cost-effective solution to save water and not have to dig up sprays or rotors, and the PRS-Dials were the obvious choice for us. We estimate that we can save approximately \$150,000 in water cost per year if PRS-Dials are implemented at our other campuses. That's significant cost savings," said Swift.