



# Barrel Springs Elementary School, Palmdale, California

## Barrel Springs Elementary School in Palmdale, CA Achieves Water Savings of 25% Using Rain Bird® Products

Barrel Springs Elementary is located in Palmdale, the high desert of Southern California. The city is in the Antelope Valley north of the San Gabriel Mountains and Los Angeles basin. The area gets only 8 inches of rain annually, and the average temperature often exceeds 100 degrees during the summer months.

### THE CHALLENGE

Barrel Springs Elementary has a variety of landscaping on their campus. The water pressure is set to 90psi, which is great for the large rotors on the sports fields, but it is way too powerful for the 3500 series rotors and 1800 series spray heads used to irrigate smaller areas. They need to reduce the water pressure in those areas to decrease water usage and eliminate wasteful misting and fogging.



1800 Series Spray Heads

### Core Products Used:

- [PRS-Dial](#)
- [Rain Bird® Central Control](#)
- [3500 Series Rotors](#)
- [1804 Spray Heads](#)
- [1806 Spray Heads](#)

### THE SOLUTION:

Retrofit the existing irrigation system and capitalize on opportunities to regulate and reduce the high pressure of incoming water. This will be a cost-effective way to reduce the flow rate of the system and help to save water while minimizing pressure surges and water hammer that can shorten the life of the system.

### KEY OBJECTIVES

- ✓ **Reduce Water Pressure**
- ✓ **Save Money**
- ✓ **Conserve Resources**
- ✓ **Meet CA Regulations**



“ 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 a significant cost savings.

**DAN SWIFT**  
ASSISTANT DIRECTOR OF MAINTENANCE AND OPERATIONS, PALMDALE SCHOOL DISTRICT

#### RESULTS:

### Increased Durability & Efficiency

PRS-Dials were able to eliminate the misting and fogging by lowering the water pressure. Installation only took about 10 minutes per zone and the psi was reduced to 45psi for rotors and 30psi for sprays, while the psi on the sports fields remained at 90psi for peak performance. Operating at the optimal water pressure also helps reduce water hammer, which increases the longevity of the system and reduces maintenance costs.

### 25% Water Savings

Prior to the installation, the district used its Central Control system to record the flow rate of each of the 24 test zones. After installation, the flow rate for each zone was measured and compared to the pre-installation rates to calculate water and cost savings. The results of the comparison showed an impressive average water savings of 25%!

**This amounts to a savings of 3,536 gallons per irrigation cycle. In a year’s time, this school will save over 445,000 gallons of water and over \$3,000 in water costs. This means that the payback period is less than 5 months.**



PRS-Dials

#### APPROACH:

### Install PRS-Dials at the Valve on Each Zone

PRS-Dials will reduce the water pressure to the optimal levels for each area. It’s an excellent means of regulating outlet pressure at the valve regardless of incoming pressure. The visible scale makes adjustment quick and easy and installation is fast and cost-effective.

