Western Municipal Water District, Southern California

WATER DISTRICT
Western Municipal Water District

END USER
Homeowners in Riverside County, Calif.

RAIN BIRD PRODUCTS:
- 1800-Retro Spray-to-Drip Retrofit Kit
- XFD On-Surface Dripline

"California's water suppliers and landscape irrigators equally continue to search for intelligent irrigation and landscape options. Water suppliers want increased irrigation efficiency; irrigators want healthy landscapes. Both want the lowest possible resource inputs – water, labor and money. Drip irrigation is perhaps the best way to achieve these desires – lower water demand and healthy plant materials."

— Tim Barr
Western's Deputy Director of Water Resources

PROJECT OVERVIEW:

Western Municipal Water District (Western), the water district for Riverside County, Calif., developed a test program designed to demonstrate water savings by converting certain zones of homeowners' spray irrigation systems to drip irrigation. Western evaluated and selected 20 homes, each having approximately 600 square feet of landscaping, consisting of ground cover and shrubs, watered by sprays. At each property, the spray zones were converted to drip irrigation using Rain Bird's 1800-Retro Spray-to-Drip Retrofit Kit. The 1800-Retro easily converts spray heads into connection points for Rain Bird's XFD On-Surface Dripline. The 1800-Retro includes a built-in 200-mesh filter and 30-psi pressure regulator.

CHALLENGE:

Because of growing water-supply demand and persistent drought conditions, Western wanted to find an easy way for homeowners to change their watering habits. Spray irrigation is a less efficient method for watering ground cover and shrubs than is drip irrigation so this seemed like a good place to start. Western's management and board also recognized that it needed to be both easy for contractors to change out the sprays for drip irrigation and cost-effective for property owners.

RESULTS:

Across all 20 homes, water savings averaged 81.5 percent with an average savings of 238 gallons of water per week, which is almost 12,500 gallons per year. The overall cost per square foot was $1, which included labor and materials. In a survey conducted before the program, 67 percent of the participants joined to save money on their water bills and 20 percent joined to save water. After completion of the program, 80 percent recognized that the primary benefit was to save water, and 80 percent would consider converting more sprays to drip systems in the future. In addition, 51 percent noticed improved plant health, less water run-off and fewer weeds, and 31 percent noticed no overspray on sidewalks and walls.

Western's water-use efficiency team were encouraged by the results of the program. "Drip irrigation is probably as important to the future of California's landscape as the aqueducts were to the early Roman Empire. It's about efficient delivery of water. Drip has the greatest potential to increase water efficiency in the landscape – while allowing shrubs and trees to thrive – with lower potential for irrigation run-off, overspray and waste," says Tim Barr, Western's deputy director of Water Resources.