

### Riverside County WMD Moreno Valley, CA

#### PROJECT LEAD

**Refuse Control Coordinator (RCWMD)**  
Dave Matthews

#### CHALLENGES

- 1991 Water Conservation Ordinance limited water used for landscape irrigation
- Eastern Municipal Water District fined the site the maximum penalty for excessive water use
- Overhead sprays in sparse planting areas increased water use and building/grounds maintenance

#### SOLUTION

- Converted sparse planting zone from spray heads to drip irrigation

#### RESULTS

- Elimination of water fines
- Reduced maintenance
- 226% water reduction (4,620-gallon monthly water savings)



*Rain Bird Xerigation® team helps out with RCWMD's retrofit installation.*



## Less waste to manage at the Riverside County WMD

### Drip retrofit leads to water and cost savings

#### Project Overview

One hundred employees work at the Riverside County, California, Waste Management Department (RCWMD) facility in Moreno Valley, halfway between Los Angeles and Palm Springs. This dynamic community near Lake Perris and the San Bernardino mountains sits in the Eastern Municipal Water District (EMWD), the fifth largest in California. Their task is to manage the community's solid waste and landfill operations. However, while they were doing that, they were having some waste problems of their own.

The landscape plan used at construction, completed in September 2002, included traditional overhead spray heads throughout. However, much of the landscaping was sparse plantings next to buildings and sidewalks, and the spray heads in this application were not the best solution. The EMWD adopted a water conservation ordinance in 1991 that restricted the water used for landscape irrigation. The Moreno Valley facility soon found itself using 40 percent more water than their monthly budget, which led to substantial fines. "The water district fines were exorbitant," says Dave Matthews, the RCWMD Refuse Control Coordinator. "We realized that the irrigation system needed to be changed or we would run through our water allocation quickly."



*Strategic Rain Bird® Xeri-Bug™ Emitter placement provided more efficient watering around shrub root zones.*

## PRODUCTS USED

**12" Polyflex Riser/Adapter Assembly**  
PFR/FRA

**2 GPH Xeri-Bug™ Emitters**  
XB-20PC-1032

**Pressure-Compensating Modules**  
PC-07-1032, PC-10-1032

**Control Zone Kit**  
XCZ-100

**Xeri-Caps™ for Spray Heads**  
XC-1800



*Dave Matthews installs Rain Bird's XCZ-100 Control Zone Kit. This medium-flow kit, with its durable DV Valve and RBY Filter provided an ideal solution for the new drip irrigation design.*

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The Intelligent Use of Water™

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## Project Challenges

Officials at the facility had more issues with the irrigation scheme besides water usage. The senior management team didn't like the way pop-up spray heads left water spots and damaged the sidewalks and buildings. Trial-and-error irrigation schedule experimentation also led to overwatering.

Another effect of overspray was extra vegetation—in the form of weeds. Although the spray heads were working well, they were not the most appropriate product for the sparse planting application as they encouraged weed growth in the areas between the shrubs. Dave Matthews attended a course on Rain Bird® Xerigation®, which demonstrated the benefits of a highly efficient low-volume irrigation system. Armed with this information and the knowledge that other municipal sites within the county used drip irrigation, Dave recommended that the site could avoid water fines by converting their conventional spray system to drip irrigation.

## Solutions

Dave Matthews contacted Rain Bird and discussed switching spray heads to drip irrigation for the sparse planting areas. With the help of John Ross and Dave Palumbo, Rain Bird sales representatives, Dave Matthews and the facilities management team decided to convert three shrub beds sharing one watering zone to drip irrigation. The spray heads were capped off using Xeri-Caps™, and the zone was retrofitted with Rain Bird®

12" Polyflex Riser/Adapter Assemblies and Rain Bird® 2 GPH Xeri-Bug™ Emitters. Trees got their own drip systems, as well: 7 GPH Pressure-Compensating Modules for small trees and 10

GPH emitters for larger trees. The system, built using durable PVC, was very robust, rodent-proof and vandal-resistant. Also, the Marlex® material of the Polyflex Riser/Adapter Assembly eliminated the need for Teflon® tape, which resulted in cost and labor savings.

*"Rain Bird's reliable products allowed us to install a robust, water-conserving system."*

Xerigation directly targeted to the plant had two benefits — it eliminated overwatering and reduced weed growth. "It was so easy to convert the existing spray zone into drip," says Dave. "Rain Bird's reliable products allowed us to install a robust, water-conserving system. The Rain Bird Xerigation team helped us with the retrofit installation, which shows their commitment to their customers and to their products."

## Savings Summary

Thanks to Rain Bird's help, the waste management department managed their own water waste. EMWD fines stopped, and the facility realized a cost savings as well as a 4,620-gallon monthly water savings. "We were able to convert our irrigation for this zone to drip to make it more efficient, and with John's help we changed our schedule to be more precise to meet the water requirements of the plants," Dave says. "We are thrilled that Rain Bird's Xerigation system has helped us achieve both water and cost savings, and we are no longer over our district water allocation. Converting the other 20 zones to drip irrigation should give us an annual water savings of more than 1.1 million gallons." The Intelligent Use of Water™ is a reality for RCWMD.