

Tierra Verde Resources, Inc. (TVRI) San Diego, California



PROJECT LEADERS:

James McDonald,
Water Conservation Manager

Tom Lewis, Director of Operations

PRODUCTS USED:

- Maxicom²® Central Control System
- MPR Nozzles
- 1800® Series Sprays
- 5000 PRS Rotors with Seal-A-Matic™ (SAM) check valve
- XF™ Dripline

"We really see Maxicom² as an investment that can provide substantial value. We're continuing to explore all the ways it can enhance our efficiency and pass those savings on to our customers."

—Tom Lewis, Director of Operations
Tierra Verde Resources, Inc.

PROJECT OVERVIEW:

Tierra Verde Resources, Inc. (TVRI) is a licensed landscape maintenance company in San Diego, California that works exclusively with homeowner associations. TVRI's irrigation technicians are supervised by James McDonald, the company's water conservation manager. According to Tom Lewis, director of operations, one of TVRI's largest customers is the 4S Ranch Homeowners Association. At 4S Ranch, TVRI is responsible for more than 40 acres of turf, 90 acres of slopes and 30 acres of planter beds.

THE CHALLENGES:

The 4S property uses reclaimed water for irrigation, and while this practice conserves potable water, it also presents certain challenges. Irrigation systems must run only during the hours of 10:00 p.m. to 6:00 a.m. as mandated by the Environmental Protection Agency (EPA) and enforced by local water municipalities. Because the development spans approximately three miles from north to south, it can be quite a test to apply precisely the correct amount of water the landscape needs to flourish. "The irrigation system for this property alone consists of over 100 controllers running 4,700 stations," McDonald said. "Plus, the site contains large slope areas requiring long run times that present major hydraulic issues. The challenge is meeting these water requirements within the time available."

THE SOLUTION:

McDonald says that TVRI uses the combined power of Maxicom²® and an on-site weather station to apply reclaimed water to the 4S Ranch landscapes as efficiently and effectively as possible. Maxicom² breaks the property's 4,700 stations down into unique microclimates based upon a number of variables, including the type of plant material, soil moisture holding capacity, infiltration rates, precipitation rates and sun exposure. After collecting evapotranspiration (ET) data from the weather station, Maxicom² automatically calculates run times for these microclimates, by adjusting the station run times to replace only the water used by the plant or lost to evaporation. Maxicom²'s Flo-Manager™ tool makes it possible for TVRI to operate multiple stations simultaneously, efficiently balancing system demands and maximum capacities to meet a tight watering window.

THE SAVINGS:

While TVRI has been using Maxicom² for over six years, the weather station that has been integrated into the system has been in use for approximately two years. The weather station enables Maxicom² to more quickly react to changes in weather conditions and calculate more precise run times. As a result, Maxicom² helps TVRI prevent both over-watering and under-watering, saving water and keeping plants healthy. Furthermore, the ability to program and manage the 100-plus controllers from a single location with Maxicom² has reduced 4S Ranch's labor costs by eliminating the additional manpower needed to travel to each site.