

# Real-Life Solutions

SAN GABRIEL CC, SAN GABRIEL, CALIF.

## Taking Control

Superintendent replaces antiquated central-control system with latest in high technology

BY DAVID AND PATRICIA FLETCHER

Open since 1904, San Gabriel CC is one of the oldest private golf clubs in Southern California. Its traditional layout, gently sloping terrain, mature oak trees and old-time club camaraderie keep members happy. While “classic” aptly describes the club, however, just plain “old” describes its centrally controlled irrigation system.

### The problem

The club’s 16-year-old hardwire system had once been described as “state of the

### Problem

San Gabriel’s 16-year-old hardwire irrigation control system failed often, operated slowly and wasted water.

### Solution

Install a new Aurora control system, which includes 29 48-station field satellites and two-way communication through hardwire, radio and cellular telephone.



SAN GABRIEL CC

art,” but by 1998, it started to fail. When the system wasn’t in need of repair, it operated slowly and fell short of efficient water management.

“It was frustrating,” says Robin Henry, San Gabriel’s superintendent. “I could only make a few adjustments and couldn’t write specific [irrigation] programs for different soil types. We would also spend 45 minutes inputting the next day’s program and waiting to receive confirmation from the satellites. If one satellite didn’t get the signal, we’d have to drive out to it, reset it, resend the signal to all satellites, wait for confirmation and so on.

“We were making all this effort, paying huge repair bills, using lots of water and our turf *still* wasn’t very healthy,” he says. “I was ready for some new electronic controls.”

In any new system he purchased, Henry wanted multiple programming to isolate microclimates and microsoils, a short-band radio to control the system from anywhere in the field and the ability to integrate new technologies as they became available. He also wanted a system easy to install and manage.

### The solution

“In 1999, I was asked to test a new central-control system

**The turf is much healthier at San Gabriel CC because it’s getting the water it needs when it needs it.**

manufactured by Signature Control Systems,” Henry says. “Our board of directors and I agreed to try it.”

The central-control system, Aurora, is designed for commercial golf applications. The Aurora system features three levels of software and field satellites that can function as stand-alone controllers or manage an entire satellite network with or without a central computer.

“With Aurora, superintendents can build simple systems with just one

*Continued on page 36*

*Continued from page 34*  
stand-alone controller in the field," Henry says. "Then later they can network a series of satellites at remote locations."

Each controller/satellite has a built-in microprocessor and offers two-way communication through hardwire, radio and cellular telephone, according to Signature.

"Every controller in the field has the power of a central computer," Henry says. "That means you can walk to any satellite and receive and send information from and to any other controller or the entire network."

Henry's system includes 29 48-station field satellites for the entire golf course. He ordered pedestal-mounted, stainless-steel models. Rather than hard-

**"Radio made installation fast and less disruptive because there was no trenching for wires."**

—ROBIN HENRY

wire communication, Henry chose UHF radio as his communication band of choice.

"Radio made installation fast and less disruptive to play because there was no trenching for wires," he says. "We mounted new



SAN GABRIEL CC

pedestals and used the existing power and valve wires, upgraded the grounding system per specifications, and we were ready to go. We retrofitted our own golf course and had our programs up and running by ourselves. It only took a week to complete."

Henry also has an Aurora hand-held UHF radio remote for in-the-field control and a cellular phone modem.

"The hand-held remote is like my best friend; I rely on it constantly," Henry says. "I can be anywhere within a two-mile radius, and [I can] shut down or activate water cycles and individual stations. In fact, with my cellular phone as my remote, I can operate the system without having to be on the course."

Henry also uses a Palm Pilot for programming away from the course and for

downloading upgrades. He also uses it to program changes to field satellites.

"Best of all, I didn't have to buy new equipment to use cellular links or narrow-band radio," Henry says. "The controllers are digitally ready to integrate new technologies, so I don't have to call a meeting with the board of directors every time I want to upgrade my system."

Aurora's family of software runs off Windows. Henry has Aurora's most advanced level, called Professional, which can control up to 999 satellites and provide entire site management.

"By having multiple programs, I'm able to put water in the zones accurately," he says. "For example, my 13<sup>th</sup> fairway runs from east to west. The north side, which is in the sun, always needs more water than the shady south side, so now I

**Superintendent Robin Henry says he relies on his UHF radio hand-held remote constantly.**

just input a program for each side of the fairway and change the water budget by percentage."

### The outcome

The club's turf improved dramatically, Henry says.

"Our board and chairman were thrilled," he says. "The turf is much healthier because it's getting what it needs when it needs it. From a financial standpoint, the system is affordable, and there has been a noticeable savings in water use and electrical use by the pump house." ■

*David and Patricia Fletcher are principals of Santa Rosa, Calif.-based DP Fletcher Marketing, a marketing communications agency that specializes in the green industry.*