# Scaled-Down Solution

**Superintendent Mark Cote didn't have $2 million to automate irrigation, so he opted for a programmable electronic activator**


**With a programmable unit and a 9-volt battery, 16 separate irrigation starting times can be programmed.**

## Problem

**Short of investing more** than $2 million to revamp power sources across Palm Desert CC, superintendent Mark Cote had to resort to some old-fashioned ingenuity to automate irrigation. He wanted to cut down on wasted water, prevent puddling, and more effectively irrigate the course.

## Solution

**Using a programmable electronic** activator, Cote placed an actuator where the old solenoids were, added a Banditrogram up to 16 starting times for his quick-coupler irrigation system.

When Mark Cote assumed duties four years ago as superintendent of Palm Desert CC in Palm Desert, Calif., he knew irrigating the course would be a chore. The course had a nonautomated quick coupler system, making irrigation labor-intensive.

"My assistant and I were running back and forth between greens, and that's practically all we were doing — nothing else," Cote recalls, shaking his head. "It wasn't practical, so the first thing I wanted to do was get control of irrigation on greens, and get the greens on some kind of a decent program."

### The problem

"The problem out here is that we can't run power," Cote says of the decades-old course that was built before computerized irrigation was a run-of-the-mill expenditure for new courses. "They would have to completely rethink the electrical system."

But costs to install new electrical wiring and improve existing power and water sources across the course were estimated at more than $2 million, an investment that owners wouldn't approve — not when the club can pay five workers much less to irrigate the course at night.

Although that may be true, it's difficult to irrigate the course uniformly and efficiently under that system. "You can imagine watering this course by hand," Cote says.

Besides the added labor headaches, the course was spending substantially more on water than a more efficient, computerized irrigation system would spend. There was also the matter of wasted water in a desert community where water is at a premium.

### Options

Footing the $2 million-plus bill to rebuild Palm Desert CC's electrical power system, improve lake capacity and revamp pump stations was ruled out, at least for the immediate future. Even if the club hired a company to rebuild the sprinkler system, enlarge existing lakes and upgrade two pump stations, there were still the problems of inadequate power sources.

Cote could have continued watering as he had been, but he wanted to take a more environmentally sensitive approach by cre-

ating a more efficient, effective irrigation system. He also wanted to eliminate puddles, which irked players. An option was to purchase an electronic program that could set 16 irrigation starting times.

### Solution

With a programmable unit and a 9-volt battery (which should be replaced about every six months), Cote programs up to 16 separate irrigation starting times. The activator hooks onto a 2-inch or an 1.5-inch electric valve. "I installed a manual gate valve before the electric valve for emergency purposes and the AV solenoid into the new electric valve," Cote explains.

### Outcome

The result is consistent control of water on greens despite a slight cutback in the work force.

"When I first got here, some greens were real wet, some dry," Cote says. "Irrigators were out there, and if they took a break or something, they might forget a green. One green might be irrigated for an hour, the next might run for the proper amount of time. There was no consistency."

Now Cote can dictate when and where to water, which has resulted in more efficient and effective placement of water across greens — and a healthier soil profile.

Added irrigation control allows Cote to more carefully time watering of overseeded greens.

"It helped when we were growing in the overseeded ryegrass," he says. "It allowed us to have 12 start times for five minutes every day, whereas before we were running around like madmen trying to keep the soil moist." ■

**In a desert community where water is at a premium, Mark Cote wanted to irrigate his greens as efficiently and effectively as possible – but at a low cost.**