

# West





# Water Usage

## What You Can Learn from California's Supers

By Richard J. Skelly

**N**o matter where in the U.S. or Canada your golf course is located, all superintendents at one time or another must deal with periods of little, less than anticipated or flat out no precipitation. Golf course superintendents in California have been grappling with all kinds of water restrictions on their sacred turf since the 1970's. The labor costs of complying with local, county and state regulations regarding use of water on golf courses is significant. All of the superintendents we spoke with agreed golf courses are an easy target during times of drought, but in California at least, they're pretty much left alone the rest of the time.

For the last two "rainy seasons," all regions of California have had higher than normal rainfall averages, so for now, the heat is off from state legislators in Sacramento. Golf Course Industry spoke with Mike Swing, who is president of the California Golf Course Superintendents Association, as well as two of that group's key legislative liaisons, Jim Ferrin, whose courses are located north of Sacramento in

the northern end of the state, and Jim Alwine, who recently made a move from Stockton Country Club in the central valley to Bernardo Heights Golf Club in San Diego county, the extreme southern end of the state.

All three veterans had much to offer those in other states coping with water restrictions and periods of drought in general.

"The past few years we've had very heavy rainfalls so there've been almost no water restrictions at all," reports GCSA president Mike Swing. Swing, superintendent at Visalia Country Club in Visalia, Calif., and president of the California Chapter of the GCSAA, hails from the state's central valley, a region populated by large corporate farming operations and dozens of smaller farms. The history of water restrictions on irrigation practices in the state of California goes back to the 1970's.

"The central valley is huge and almost all of it is farm, and ag is pretty big out here," Swing reports, "and while this year there have been some water restrictions down south, there is a water use mandate by the state of

California that says by 2010 you shall reduce your water use by 10 percent and by 2015 you shall reduce water use by 20 percent," Swing reports of the latest possible legislative actions he knows about coming out of Sacramento.

"The law is there, it's the enforcement of it and what level they're going to enforce it at that are the issues," Swing continued, freely admitting the state of California these days is looking everywhere for new sources of revenue. As of yet, however, there is no formula and there's likely not going to be one blanket, across-the-board solution for all golf course superintendents in a state as big and varied as California. It's well-known that southern California cities like Los Angeles and San Diego average far less in annual rainfall than do cities like Sacramento and points north in northern California.

"I'm sure they're going to have to devise some sort of formula that works for each golf course," Swing said of state water control authorities, "so that they can tell owners and supers, this is where you need to be and if you're over it, this what you're going to pay."

To comply with new water restrictions, Swing offered by way of example his own club, Visalia. Built in 1922, the club's irrigation system is 23 years old.

"Instead of looking at a complete rebuild, we're going to replace sprinkler heads and control stations to satisfy the 2010 10 percent water drop," he said, "and our lakes leak pretty good, so for a second phase we'll seal all our ponds up, and that'll satisfy the 20 percent. And a lot of other clubs will be doing exactly the same thing."

Swing predicted it will take time for the state regulatory authorities to come up with a formula that is flexible enough to be applied to every golf course in the state, and it will take many years for southern California, which draws much of its water from the Colorado River, to find solutions to its water use problems, not just for golf courses, but for businesses and growing populations in that region of the state.

"More and more golf courses are going to reclaimed water, especially in south California," he said, because about two-thirds of the water is in northern Califor-

nia but two-thirds of the population is in south California.

This is all par for the course since the 1970's, when water rights came under the domain of lawyers, many of whom, of course, are also legislators, Swing said. In the central valley farming region where Visalia Country Club is situated, "ninety-eight percent of the water in this region is used by ag, and it's a very small percentage that goes to businesses, homes and golf

courses here. Golf courses are just more visible, even though we use our water very efficiently."

"It's hard to get past some of the perceptions of people that don't really understand golf, they often have the opinion that golf courses do nothing but waste water," Swing said, "but if you get these people to look at individual houses and the amount of water home irrigation systems put down, the amount that golf courses put down is far, far less.

The home owner can water heavily and just let it run down the street, and hey, we've all seen it, driving through housing developments, it's raining outside and the lawn sprinkler system is on, watering the lawn."

Rainfall in the central valley averages just nine to 12 inches a year, Swing points out, and that's only during the rainy season, he notes, "we don't get any during the summer."

By way of advice to other su-

perintendents in other parts of the country, Swing said continuing your education is a big part of the solution, "and it's vital to be operating a golf course with newer irrigation tools, sprinkler heads and wetting agents have become very very good." He adds that "supers can advise their boards, 'Hey there are new technologies available, we can make a savings by implementing some of these new technologies.'"

As for the eventual implementation of water use mandates for golf courses in California, "we're trying to keep an ear close to anything that's going on with golf at the state level, especially if it concerns water," Swing relates.

"We don't know yet what the penalties are going to be, they've got the law, the mandates are there, but how you going to

"The central valley is huge and almost all of it is farm, and ag is pretty big out here... and while this year there have been some water restrictions down south, there is a water use mandate by the state of California that says by 2010 you shall reduce your water use by 10 percent and by 2015 you shall reduce water use by 20 percent." — Mike Swing, Visalia Country Club

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enforce it and at what level," he said. "I think they're going to look at historical E.T. rates for each area of the state, they may work off of that, but once you've determined that, how are you going to make it compliant? That's what they have to figure out."

Jim Ferrin, a legislative liaison with the state superintendents' association oversees Timber Creek and Sierra Pines golf courses in Roseville, Calif., just north of Sacramento.

"They've been trying to regulate water use on golf courses in a bunch of different ways now for a number of decades," Ferrin said, agreeing with Swing that water restrictions will be more of a problem in the southern part of the state first.

Pressed for advice and suggestions for supers in other parts of the country who must deal with occasional, temporary droughts and resulting water use restrictions, Ferrin said a number of solutions are posted online.

"We have a great model done by golf course supers in Georgia," Ferrin notes, and it's posted online at the GCSA of America website.

"They're already been through horrific droughts over the last three years, and it's a best management practice program about how you go about dealing with things. I saw some good ideas in there. It's just a proactive way of dealing with regulatory effects,"

Ferrin adds.

Aside from using gray or reclaimed water, which so many golf courses in California are already doing, longer term, Ferrin predicts, "we have to be aware that the future is probably going to involve less water use. So the amount and type of your turf, the type of your soil, the computer systems, the type of sprinklers you're managing, the pump stations, all have to be looked at to be made as efficient as possible," he argues.

"And it's not just the water usage, it's also the power usage, the cost of the power, and the cost of that power and water varies from place to place."

So how does one justify irrigation methods and water use to state regulators who don't play golf?

"Many of us keep clear records of our daily usage and can show how we're using less water, we're adding turf areas and fertility factors to use less water, and there are products on the market like wetting agents that allow you to use less water," he says, "just having a record of your practices and the means with which we do so, you can show somebody who's a non-golfer how we're trying to conserve water."

Ferrin notes that members are ultimately the ones who have to be satisfied and are paying the superintendents' salaries, "so really, there's pressure in both places."

Ferrin advocates for golf courses that are less green but more play-able. "Every section of the golf course does not have to be perfectly green," he said.

"A lot of clubs are taking advantage of recycled water where they can, but there's not always

that much recycled water available," Ferrin adds. "So as populations grow and demand for bottle water grows, golf courses are going to be under more pressure to use reclaimed water."

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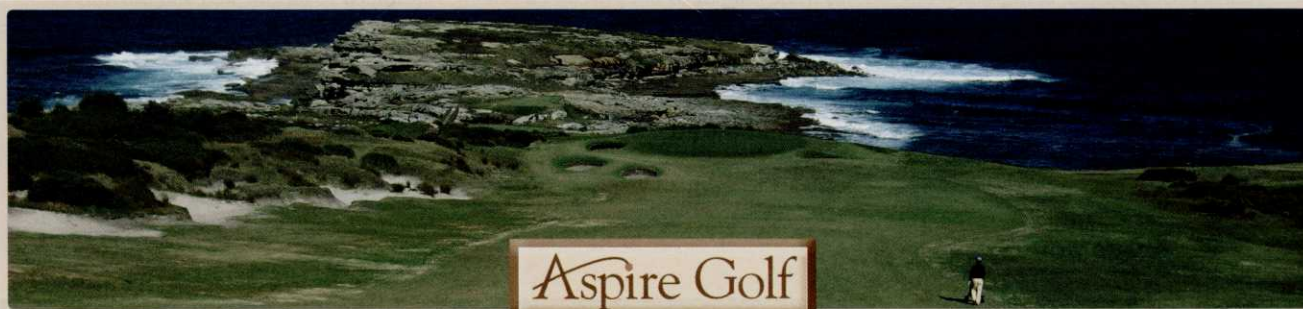
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Another legislative liaison for the superintendents' association in California is Jim Alwine, who moved in July to a new post from Stockton CC in the central valley to Bernardo Heights GC in San Diego County.

"We all know this across the board, 20 percent is not a very efficient way to conserve water," Alwine argues, "and most golf course supers in this state are already doing their job with drought resistant turf and wetting agents, so there's been a push to find more of a coefficient for Bermuda grass, rye grass and how much water you should use for certain areas. Golf courses are very efficient irrigators and a 1 percent leak would create a wet spot on the golf course."

"I really hope the 20 percent reduction doesn't happen in 2015, but if it does, that's just poor management," he argues.

The state's water use policy as it applies to golf courses has been more reactive than proactive, Alwine continues, "it was a hot button issue three years ago when we were in a drought, but the last two years have been very good rain years so legislators are not looking at water 'cause water's not a problem right now."

Alwine urges superintendents in other parts of the country who face water use restrictions to have a drought contingency plan in place.

"You start picking areas you know you can do without, some of the out-of-play areas and native areas you can go completely off, like the driving range, out of play areas," he advises, "some of the out-of-play areas and native areas you can cut it completely off if you need to." Then, if need be, you can drop water use by 30 percent in rough areas and 20 percent in primary rough areas, and 15 percent in fairways.

"Greens you pretty much don't

want to mess with, because of the cost of each green complex as well as a host of diseases and other issues that can come into play" he adds.

"Tees, greens and approaches are what make a golf course, so they should be pretty much untouched in your drought plan," he adds.

"Another way to make sure you're using water as best you can is to use water meters to measure the soil, have a weather station so you know what the ET rate is for that day, and if you know those factors and what your turf can handle, tools like wetting agents can be extremely valuable," he argues.

Pressed for more advice, Alwine recalls advice he got from a superintendent he worked for many years ago; stronger turf ultimately needs less water, he points out.

"If you're not killing anything, you're not trying hard enough," Alwine continues, or, in other words let the weaker turf fade away and die and let the stronger turf survive, "some of the poannia in your rough, let it be replaced by Bermuda or rye grass. It's kind of a survival of the fittest mentality and you end up making a very strong turf system that way." **GCI**

*Richard J. Skelly writes about golf, music and finance and is a frequent GCI contributor.*

## (MILLER

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insisted we sit and chat for a while, often with a crackling fire in the fireplace and surrounded by walls of books.

And it was the books that interested me so much, too. His interest in history, especially that of New England and of golf, was everywhere. Geoff and Ron Whitten wrote the book *The Golf Course* in the early 1980s, and I would bet it must have held some sort of popularity record

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for books of its kind. I recall Ron telling me that he carried his golf course information in his shirt pocket on a floppy disc while Geoff had his golf course information nearly filed on 3x5 recipe cards! I have all of his books, each inscribed by some wonderful remarks. They are my library treasures.

Geoffrey Cornish died on Feb. 10th of this year, and many kind and truthful things have been written about him. He was recognized with most of golf's awards,

during his long life of 97 years, yet you'd never guess it. He was kind and humorous and loyal and humble. He was an architect and author and ambassador for golf. He was a historian, an educator and a friend to golf course superintendents. It is going to be really difficult to go out East around Columbus Day and not be able to see him. The landscape will be beautiful, the leaves spectacular, but knowing I cannot visit with this grand gentleman makes me sad. I really miss him. **GCI**

**"I love stories Rod Johnson tells from his time working with Geoff on a master plan for Pine Hills CC."**