



Can You Make Do With Less?

When Todd Draffen was at Old Collier he routinely checked the operation of the inner and outer heads around the greens with a remote controller. Photo by Joel Jackson

If you are on a golf course in the South Florida Water Management District and have a Consumptive Use Permit to pump ground or surface water for your irrigation, you have been forced to reduce your monthly consumption by 45 percent under the current Phase 3 Emergency Drought Order.

Courses that are using reclaimed effluent water are currently under no such restriction, but the possibility of placing restrictions on all water sources is being discussed as more municipalities seek to provide more reclaimed water for homeowner irrigation and take outside watering off of public-supply potable water. Courses using brackish water from the Lower Hawthorne aquifer on the West Coast and the Floridan on the east coast had to file variance to continue to pump adequate amounts of water.

Look for new course designs to have fewer irrigated turf acres overall and to use alternative water sources rather than the freshwater aquifers. There will also be a push for existing golf courses

to reduce irrigated out-of-play areas and convert them to more Florida-friendly plants which will require just enough extra water to get started and then exist on natural rainfall.

There will likely also be a push to get courses with older systems to modernize and upgrade systems to be more efficient. Hopefully, there may be some grant money available to help cash-strapped courses or perhaps tax rebates or other incentives to help courses modernize their systems.

Efficiency begins with the irrigation-system design that provides for optimum operating pressure throughout the course. More efficiency is attained in many cases by having more but smaller part-circle heads to deliver the water where it is needed. A good example is inner and outer heads around a green, so that the intensely managed putting surface can be watered as needed while the taller turf on the slopes can be watered less frequently. The old design of full circle heads watering both slope and putting surface is a prime example of inefficiency in

today's water-conscious world.

While efficiency and conservation should be goals of all water users indoors and outdoors, golf is one of the most visible, at least in media and public's perception.

I could counter that, while golf courses turn off their irrigation systems when it rains because too much water affects turf health and playing conditions, what is visible to me are the homeowner and municipal irrigation systems that run during and after rains. And the broken heads in these systems go unrepaired for days or weeks, while on a golf course inspection, repairs and timing adjustments are made daily.

Regardless of perception, the reality is that all water users – golf included – will be asked to get by on less water in the future. Bob Randquist, CGCS at the Boca Rio G.C. told me that last year when Phase 3 was in effect, he had to modify his approach to irrigation management and get more creative in how and where he applied the reduced amount of water he had to work with.

He kept his members well informed

of the trade-offs as he had to make sure he kept the greens and tees well irrigated for survival and perhaps let the roughs and fairways go into drought-survival mode. This meant discoloration and yellowing on parts of the golf course. Randquist tried to keep rotating modest amounts to water to the roughs to keep areas from dying out completely, which could result in costly turf replacement.

Speaking of money and economics, the public – and sometimes even our regulators – forget that the golf industry is a major contributor to the state’s economy, especially during the busy winter tourist season. The most recent economic impact study revealed that golf was a \$4.4 billion industry employing about the same number of people as the state’s theme and amusement parks. Higher property taxes for homes located on or near golf courses is a significant revenue source for local governments.

Environmentally speaking, golf courses serve as open-space, rainfall-recharge areas for the water table, absorbing four times as much water than they use for irrigation. It has been estimated that 2,500 square feet of healthy turfgrass produces enough oxygen for a family of four. That means that 100 acres of maintained turf for an average course provides oxygen for about 7,000 people. Besides being an efficient stormwater and dust filter, temperature moderator and erosion control, healthy turfgrass on the fairways and roughs acts as a “carbon sink,” sequestering carbon dioxide from the atmosphere, helping to mitigate global warming concerns.

According to repeated Florida Water Use studies by the U.S. Geological Survey, golf courses are calculated to be using only 3 percent of the water statewide. Recently the South Florida Water Management District announced that golf used only 2.3 percent in

its district. Golf courses make pretty positive contributions to the state’s environment and economy for being a relatively small user.

Currently each district has its own set of criteria for drought restrictions. Since district boundaries cut across many political boundaries like city limits and counties, there are often two sets of restrictions within the same political jurisdiction. As the concerns over water supplies continue the water management districts may be considering standardizing water restriction guidelines on a more statewide basis.

Be sure you are discussing this issue with your owners and golfers. Good communication is a necessity. Next, read about how Terry Wood altered his irrigation practices to cope with the Phase 3 restriction to the Naples National Golf Club. Maybe there will be some tips and ideas you can use to help you do more with less water.