

Jeffrey D. Brauer is a licensed golf course architect and president of GolfScapes, a golf course design firm in Arlington, Texas. Brauer, a past president of the American Society of Golf Course Architects, can be reached at jeff@jeffreydbrauer.com.

## BACK TO THE (IRRIGATION) FUTURE

had the pleasure of moderating an irrigation panel at the Golf Course Builders Association of America's annual meeting in Milwaukee during the PGA tournament.

There I was able to ask some prominent irrigation designers the same questions I posed in this space recently, and many in the audience added questions. Many were variations of "Why does the @\$##%\*&@ irrigation system have to cost so @\$##%\*&@ much?" and "What the ##%- were you thinking when you designed that?" Although some of those questions may have been directed at some of my designs.

To me, the situation feels similar to the auto industry trying to squeeze out every gallon of efficiency from existing technology while still building SUV's rather than hybrids.

I came away from that panel discussion with a good-news/bad-news opinion on the current state of industry water conservation efforts.

First, the bad news: Most irrigation designers are still primarily focused on providing the ability to irrigate to the maximum the turf might need – even in the worst conditions – rather than ask owners to accept some risk of browning a few times a year.

And now the good news: Manufacturers are continuing to push the envelope and provide new technology like better control, sprinklers and moisture sensors to help conserve water. To me, the situation feels similar to the auto industry trying to squeeze out every gallon of efficiency from existing technology while still building SUV's rather than hybrids.

However, there really isn't a "bad guy" to blame in the current state of affairs. The irrigation industry is simply responding to current needs until real change is forced by regulators. Irrigation designers and superintendents are providing what golfers inherently want – healthy green grass and a beautiful setting. We can't even blame the turf! Healthy grass

is generally green, and trying to maintain "brown" is as unreasonable as trying to keep it too green.

In reality, golf courses aren't really striving for "too green." They are typically running cost benefit analysis on irrigation – balancing the incremental cost of "extra" water now against the potentially catastrophic costs of replacing turf periodically, especially in summers like 2010, and just playing it safe.

The panel of irrigation designers agreed that they could assist better in water conservation if they were more involved in the design process. Jill Moore pointed out the cost saving fallacies of using distributor designs – she says saving an upfront fee usually results in higher long term costs, adding that, "Golf Course Architects are the key to bringing down the cost of irrigation, by reducing the width and length of fairways and irrigated rough. We should take a team approach since it all rolls down hill." (Ouch! Could I could be part of the problem?)

Bob Bryant made a compelling case for irrigation system programming to be part of standard irrigation design contracts, noting that programming a new system is best done by the person who designed it, rather than leaving it to the contractor, distributor or superintendent.

California-based irrigation consultant Mike Huck emailed me to say, "It's possible that million dollar systems encourage clubs to water more, so they can 'see their investment work." He also believes weather stations and daily ET replacement "sound like good conservation practices" but are as necessary as refilling your water glass after just one sip, rather than when it's nearly empty. Old school methods of determining irrigation need – like seeing footprints in the grass – inherently time irrigation to early stages of stress and encourage deep and infrequent watering. Most courses have survived droughts with less irrigation than they currently receive, so they can do it again.

We all agree that the industry needs improved focus on water conservation. For now, we seem to be in the "you first" mode. I have no doubt technology will lead the way, but the computer will never replace using good, old-fashioned superintendent's common sense.

Part of the solution will be to "look back" to the future. GCI