

RAIN & BIRD

Going Green

Irrigation System Renovations Are Making Golf Courses More Eco-Friendly

BY MATTHEW CORENTIN

IN THE LAST TWO YEARS IT SEEMS COST HAS BEEN THE MAJOR DRIVING FORCE BEHIND GOLF COURSE IRRI-GATION SYSTEM RENOVATION.

Until recently, the options for irrigation systems that offer both financial and environmental benefits to golf have been limited. Recognizing the demand for more environmentally sensitive products irrigation companies are now offering new eco-friendly technologies.

These can cost less up front by using fewer raw materials, and save money by lowering long-term operational costs. Two of the most notable environmentally friendly systems that have been introduced to the industry are technologybased; integrated underground irrigation control, and integrated pump station control. Since December 2009, two major eco-friendly irrigation renovations have been underway in the Washington D.C area. Both River Bend Golf & Country Club and Trump National Golf Club recently converted to two-wire irrigation control and integrated control to make their new irrigation systems more "green" and energy-efficient.

"When we decided to begin our irrigation renovation...we chose to be on the leading edge of irrigation technology," said Tom Lipscomb, greens superintendent at River Bend Golf & Country Club.

According to Lipscomb, the decision to install the IC system at River Bend was an easy one. Not only is it going to help him maintain better turf and improve playability, but it will also make their irrigation system the most efficient it can be.

With revolutionary products on the market, golf course professionals now have the ability to make smart economical and ecological decisions that will impact courses around the world. Up to now, the general perception has been that any "green" decision will cost more and not deliver its return on investment. This is no longer the case, as demonstrated by this technology.

The Rain Bird IC (Integrated Control) System has proven to save some golf courses up to \$100,000 in installation labor and wire costs, compared to a standard, fullsize 18-hole satellite system that requires individual copper wires to each sprinkler head. The system directly links the course rotors to a central control system with just a single two-wire cable. Effectively measuring the efficiency of the irrigation system is crucial for golf course superintendents. By using the "Water Window Efficiency" method, course management professionals are able to determine how effective the system is at applying the proper amount of water in the shortest period of time. By utilizing a computerized central control system, course managers are able to generate reports that calculate the water and energy use.

Lipscomb said that another benefit is the simplicity of expanding the system.

"You simply lay the pipe, install the head, and this is the kicker – you only have to continue the wire path from the previous head. No more time, money and unsightly trenches going back to satellite controllers."

By choosing a two-wire controlled irrigation system, the new irrigation system uses a lot less copper wire not to mention the concrete foundations that are required to support satellites.

"This was extremely important to the club because not only were we conscious of price, but we also wanted to make environmentally friendly decisions," Lipscomb said. "It was nice that we were able to install a system that met both of these objectives."

In 2009, Donald Trump bought Lowes Island in Washington D.C., which features the 72-par Championship Course and The River Course. When director of grounds, Brad Enie, came on board he knew at least one of the golf courses was in need of an irrigation renovation. He also knew that the course was in a unique situation since they had two different central control systems running the 36hole facility.

"I was surprised to see two completely different irrigation systems running on each 18," he said. "We knew the older of the two systems needed to be replaced right away, and that the other would need replacing eventually."

Enie knew the importance of installing a system that would be more efficient, able to control both courses from one central computer, and be as eco-friendly as possible.

"We talked about water and energy-efficient products, and how the move to integrated two-wire irrigation technology was friendlier to the environment," Enie said. "This is especially important as the Trump organization strives to be as 'green' as possible."

"It offered the best solution for us," he said. "The system acts as a 'hybrid' by controlling a hardwire, wireless, and a two-wire system from just one computer. This ultimately saved us time and money on the install, as well as future energy savings because of the real-time communication of the system.

"After looking at the final drawing we realized that we would save over one million feet of copper wire if we went with the two-wire system," he said. "That is over 20,000 pounds of copper that we didn't have to put in the ground."

In addition to the positive environmental impact, the system also offers aesthetic and safety benefits, and because the entire system is underground, it's unseen and vandal-resistant.

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"We did our homework at River Bend," Lipscomb said. "When you explore all of the new Rain Bird irrigation options, you will find that you can be more environmentally-friendly, save money and apply water more efficiently." **BR**

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