## Protect Your Investment

BY BILL STINSON

MY CAR IS THREE YEARS OLD AND I HAVEN'T **CHANGED THE OIL ONCE!** 

I BOUGHT A GREAT HOUSE EIGHT YEARS AGO AND HAVEN'T CLEANED THE WINDOWS SINCE!

## **RIDICULOUS STATEMENTS, RIGHT?**

Yet a golf course may spend hundreds of thousands of dollars, if not millions, on an irrigation system but neglect to perform the routine ongoing maintenance necessary to keep the system working at peak performance.

An irrigation system is a sprawling, complex entity with thousands of parts ranging from basic components, like pipe and plastic fittings, to more complex items like computers and weather stations. These components are largely buried in the ground, exposed to hostile elements, both living and inert, and are expected to last for decades.

In fact, the USGA has issued guidelines that state that the various components of an irrigation system should last anywhere from 10 to 30 years. Why the large range?

Maintenance intervals on these items can range from weekly to years, or some combination thereof, depending on the item.

For example, it's recommended to visually inspect sprinkler operation on six holes of the golf course every week. This will result in all sprinklers being visually inspected at least once a month.

At the same time, it is recommended that a detailed sprinkler uniformity audit be performed every 3-5 years to ensure that the nozzling is performing to expectations. As nozzles wear, uniformity can be compromised, which can result in wet and dry areas within the sprinklers' area of coverage.

With courses in arid areas applying 100 million gallons of water a year or more, poor uniformity can cost a golf course tens of thousands of dollars in excess water and power costs.

The sprinkler is at the end of the irrigation chain. The pump station, at the beginning of the chain, is a good example of an item that often gets overlooked.

As with any computer, it's important to regularly maintain the operation system, perform back-ups on the critical program(s) used, and provide regular cleaning...An irrigation system is like any other large investment. It's important to budget the money necessary to help maintain it, which in turn will ensure that it provides the results that are expected through its lifespan.

Some of it is because of the nature of the components involved, but, according to the USGA, maintenance practices are a key contributing factor in the longevity of a golf course irrigation system.

A properly maintained system will provide multiple benefits including more efficient use of water, power, and labor to achieve desired results, resulting in lower cost of operation. In today's economic climate, proper maintenance just makes good business sense.

Regular maintenance is required on many of the components: sprinkler heads, valves, weather stations, computers, pump stations, and radios to just name a few.

It's typically located in a remote location inside a locked building and is seldom visited by golf course personnel, yet it is arguably the most important component of an irrigation system and needs to work well for the irrigation system to function as designed.

A pump station requires regular, important maintenance. High frequency procedures include visual inspections of the motors and pumps and verifying that the pressure maintenance pump is cycling at proper intervals.

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Lower frequency procedures include, in the north, winterization of the station and megging motors to ensure that they are electrically sound.

Today's irrigation systems all typically have a central computer that coordinates the activation of sprinklers, makes automatic adjustments based on inputs from sensor devices in the field, and keeps in constant contact with the pump station.

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These are just a few of the components involved and their associated maintenance requirements.

We haven't even touched on field satellites, weather stations, isolation valves, valve boxes, grounding, and others. There's a lot to it!

Rain Bird Golf has produced an Irrigation System Maintenance Check Sheet to help a superintendent keep track of the maintenance necessary on a modern irrigation system. Jeff Corcoran, superintendent at the Oak Hill Country Club in Rochester, NY, helped develop the document as he readied his 36-hole irrigation system for the 2013 PGA Championship.

This document contains the major irrigation components and their related maintenance requirements and time intervals. It can be found http://www.rainbird.com/golfdistributor/ downloads/IrrigationSystemMaintenance CheckLists.pdf.

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