

# What to Expect from Your Irrigation Consultant

BY LLOYD VON SCHELIHA

**CONSULTANTS ARE A COMMON PART OF TODAY'S BUSINESS ENVIRONMENT. CONSULTANTS OFFER SPECIFIC EXPERTISE THAT TYPICALLY GOES BEYOND THE CORE STRENGTHS OF AN ORGANIZATION.**

Often a consultant is hired for the skill sets and knowledge that the organization does not have itself. The consultants are then compensated for a specific service or their expert recommendation.

The golf segment of the irrigation market is no different. There are a number of irrigation consultants that provide specific irrigation services unique to the golf industry. These consultants also make recommendations to meet the particular needs of the course. They must have an intimate knowledge of all functions and demands of an irrigation system, as well as staying abreast of all products and services offered by irrigation manufacturers.

The services offered by an irrigation consultant can vary by consulting firm; however, there are some services, typical across the industry. Some of the basic services include, but are not limited to:

- **Evaluation of existing system** – Courses use this service to obtain an assessment of the existing aging irrigation system. It can give an evaluation of the sprinkler distribution uniformity, pump station efficiency, and determine hydraulic and electrical capabilities and limitations. This can be an invaluable

service to a golf course because it can independently validate and document what the superintendent already knows to be true.

- **Irrigation system design** – Every golf course has unique features that require a customized irrigation system design. The consultant will consider the specific irrigation needs of the course and incorporate them into the design. The intent is to provide the most efficient irrigation design possible. This should be done using the most advanced technology that gives the course the most flexibility for changes in the future.

- **Construction services** – There are irrigation design firms that can provide the irrigation system design as well as offer construction observation and follow-up during the installation. Once the course decides to embark on an irrigation renovation, the irrigation consultant will be actively involved in the process and act on behalf of the course to ensure the construction is done to design and according to the project specifications.

When thinking about a consultant, in any industry, one question usually comes up, "How do I know I have received the full value of the consulting services?" or to put it another way, "Am I getting what I paid for?"

Most consultants have extensive product and industry knowledge, and

as a client we accept the expert recommendations with little question. However, when making the decision on a significant capital expenditure, the client needs to be comfortable with the information being provided by the consultant.

It is important the client educate themselves on the products and services available to the market, helping the client get clarity on the offerings and being able to speak intelligently with the consultant.

As it relates to an irrigation system design, a consultant may offer comparative designs from different irrigation system manufacturers. On the surface, the designs look the same. Both systems have rotors, control systems, pump stations, piping networks and electrical requirements. In a nutshell, they turn on sprinklers and help make the grass green.

Peel away the layers and you learn there are major architectural differences in the way manufacturers design products, which can affect system efficiency, performance, and future expansion.

The irrigation consultant needs to explain those differences so you, as the client, are comfortable with the investment you are about to make on behalf of the course.

Here are some general questions you can ask your irrigation consultant to help you be comfortable that you received the full benefit of the irrigation system design.

- What is the representative Distribution Uniformity (DU) for the different irrigation designs? How does this effect irrigation efficiency? What impact does this have on the courses operating budget, course conditions and playability?

Distribution Uniformity is a measure of how efficiently a rotor or sprinkler applies water to the turf. Different irrigation designs will provide different DUs, which will have an impact on water usage, operating costs, and playability. The DU measure is a function of system pressure, spacing, nozzle, and installation of the rotors. The irrigation consultant, or designer, should provide a quantitative assessment of the representative DUs for the different designs. Distribution Uniformity is discussed in more detail in the *Boardroom*

ability of different irrigation systems. Understanding these differences is important because it will have a major impact on the functionality, performance and expandability of the system into the future.

Using older technology in the irrigation design may allow the course to address a concern about the initial cost, but it will severely limit the functionality and expandability of the system through the years. For example: If the course chooses to use a one-way paging technology, it may get a lower initial purchase price, but will cost the course tens of thousands of dollars for years to come, including the lost opportunity cost of upgrading to new and better sensing and control options in the future.

Ask yourself, what are we giving up to get the lower cost, old technology? Modern irrigation systems provide a sophis-

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*Mar/Apr 08 – Greens Committee – “The True Cost Requires Many Considerations.”*

- What is the Water Window Efficiency (WWE) of the irrigation system designs? What level of WWE should I expect from my system? How does WWE affect the operating budget?

Water Window Efficiency measures how effective an irrigation system is at applying the desired amount of water in the shortest period of time during a nightly irrigation cycle. WWE has an impact on a number of areas including the time it takes to complete an irrigation cycle, electrical consumption, wear and tear on the system, and turf maintenance practices, to name a few. Water Window Efficiency is discussed in more detail at [www.rainbird.com/performance](http://www.rainbird.com/performance) or in the *Boardroom* *Jan/Feb 09 – Greens Committee – “Water Window Efficiency – A new way to measure golf course irrigation system efficiency.”*

- Explain the differences between the irrigation system designs.

This will likely take some time to go through. Irrigation systems are similar in that they both apply water to the turf and help keep it green. That is where the similarities usually end, because the underlying architecture of how the systems accomplish this is very different.

Do not accept an “apples to apples” comparison. There are tangible differences in the platforms, efficiencies and dura-

ted level of control that will carry the course forward into future decades.

Irrigation consultants provide a valuable service to golf courses. Their expertise in irrigation will provide additional insight into the condition, efficiency, design and use of the irrigation system. As the client it is important you continue to educate yourself to understand the fundamental differences in irrigation systems.

Not all manufacturers approach irrigation control and efficiency in the same way. The irrigation consultant can explain those differences in detail. Now more than ever, it is important to understand the differences in irrigation systems to ensure that performance and efficiency is maximized now and into the future. **BR**

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