## Reasons to Consider **Irrigation Renovations**

BY LLOYD VON SCHELIHA

## A COURSE RENOVATION SHOULD NOT COME AS A SURPRISE.

A successful golf course renovation requires considerable forethought and exceptional planning, and a full course renovation can take up to five years of planning before any work is done.

Whether it's remodeling the bunkers or a total course overhaul, there are many things to consider, and the success of the renovation depends on how well all areas are

One of the biggest considerations of any renovation should be the irrigation system, because it's the foundation of the project. The design of the irrigation should be done in conjunction with any course modification – even things like tree planting or bunker reshaping. This will maximize the effectiveness of the system and avoid a patchwork system or rework.

There are a few reasons a course should consider an irrigation renovation. The first, and most obvious, reason cost: the costs to maintain the irrigation system are going up. The superintendent and maintenance crew are spending an inordinate amount of time keeping the system running.

There are obvious costs associated with this including parts and labor; however, there are also the missed opportunity costs. As the superintendent and crew spend more time on the irrigation, other projects that can improve course playability and condition drop lower on the priority list.

Another reason to consider a renovation is age, especially if the irrigation system is 15 years or older. There have been advances in irrigation technology over the years, which have impacted irrigation designs. Sprinkler technology has advanced to provide a broader range of applications, and a variety of different rotors and configurations providing a throw varying from 18-115 feet. The sprinklers are also much more efficient with distribution.

Controls are more precise and can modify run times based on the microclimates affecting the course. There are also several more control options today including different varieties of traditional controllers, but also subsurface (Decoders) or wireless controls.

An older system can mean inefficiencies in the system and a significant amount of the maintenance staff's time is spent on supplemental irrigation or hand watering. It's possible that the expectation of the course condition is higher than what is obtainable with the current system. It may also mean that the course condition is not comparable with competing clubs. Updating the system with a new design and advanced equipment can translate into improved conditions and playability, while achieving efficient water use with lower utility and maintenance costs.

The superintendent has a vital role in communicating the needs of the course. His input will determine the time, energy and resources spent on keeping the course running, items not always obvious to all people involved in the process.

Consider a hypothetical course as an example. The members of the Old Father Country Club feel it's in good condition, but it has an aging irrigation system requiring a fair amount of maintenance time from the crew. In addition, the superintendent has a portion of his crew dedicated to supplemental watering, meaning the crew moves around the course addressing "trouble spots" through hand watering. This helps the course maintain its good condition.

The course has recently had pipes rupturing and the labor resources normally allocated to supplemental watering are now spending time fixing the pipes. This means supplemental watering is not done and the turf begins showing visible signs of stress.

This course could have multiple issues needing to be addressed, and the obvious is worn out piping with little or no useful life left. A deeper and less obvious issue is the sprinkler spacing and distribution, which may not be sufficient to support the turf.

The inefficient distribution and poor precipitation rate requires the system to run longer. The more the sprinklers run, the more wear there is on the pump station and pipes. The longer the pump station runs, the more electricity is consumed on a daily basis.

The additional amount of supplemental watering is an inefficient use of manpower and water, increasing employee fatigue and water use. These issues are not immediately apparent because the superintendent has managed to get the job done despite the aging and treacherous irrigation system.

In many cases this balancing act is so successful that the degrading system is not apparent until there's a complete catastrophe with a direct impact to the bottom line because of major repair expenses and indirectly resulting in lost play and membership.

It's important to have a discussion with all stakeholders early in the process to understand the goals of the renovation. A detailed discussion to identify the main issues and expected outcomes will help direct the renovation to the proper solution.

"These discussions should start with the general manager, golf course superintendent and the board of directors," relays Kurt Burmeister, general manager, Butte Creek Country Club, Chico, California.

"After the project gains approval from the board of directors, the detail work should be assigned to a committee, such as the green or golf committee.

"Once these entities feel comfortable with the project the membership should be notified of the plans, which can be done by sending a detailed information packet to all the stakeholders, including the plans, costs, funding, benefits, timelines, and inconveniences. This can be followed by a survey to determine any concerns and/or support for the project as it has been presented. This gives the club leadership an idea of what the next step should be, whether it is to start the project immediately or if more planning and/or support is required," Burmeister commented.

A thoughtful analysis help the club or owner determine the ultimate value of a renovation and an efficient irrigation system, because the goal of the renovation is improve course condition and irrigation efficiency. The expected outcome will improve course quality and reputation, increase play and drive revenues.

In addition, it should also decrease costs with improved irrigation design, distribution and controls. An investment of this size may meet with resistance from a portion of the club membership but is vital to the long-term success of the club. An irrigation renovation should be viewed as a financial investment to protect or increase the value of the golf course asset. BR

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