



Irrigation System Preventative Maintenance



Raising and leveling low sprinklers is a simple preventive maintenance task that can improve playing conditions and save a lot of water.

Irrigation systems are a bit of a mystery to most golfers – some components such as sprinklers, valve boxes and field satellite controllers are aboveground and easy to see, but most of the infrastructure is buried underground or placed in areas that do not come into play. In addition, you probably seldom see the irrigation system running because most irrigation occurs overnight. It might be surprising to learn, but modern golf course irrigation systems can consist of 2,500 sprinklers, 300 hundred miles of underground wire and can cost \$1.5 million or more to install or replace. Visible or not, routine maintenance is essential to keep irrigation systems operational so that high-quality playing conditions can be maintained.

Droughts, an increasing emphasis on water conservation and the goal of providing the best possible playing conditions has superintendents taking a closer look at their irrigation systems to make sure that water is being efficiently applied. Irrigation breakdowns often occur during the hottest and driest times of year, which can result in a rapid decline in playing conditions if repairs take a few days. Identifying problems early with a sound preventive maintenance program helps limit breakdowns and maintain quality playing conditions. Other benefits of a preventive maintenance program include:

- Water conservation.
- Prevent catastrophic failures.
- Reduced energy consumption.



- Maintain irrigation efficiency.
- Prolong the life of an irrigation system and reduces long-term costs.

Irrigation components have a finite life span. A good preventive maintenance program can prolong the life of irrigation equipment and keep it running efficiently. The specific preventive maintenance procedures and intervals vary from course to course depending on the type of irrigation equipment and its age. In general, an irrigation system preventive maintenance program involves the observation, adjustment and maintenance at regular intervals of sprinklers, valves, controllers and other components. The following activities typically form the foundation for a preventive maintenance program:

- Daily maintenance involves checking for wet and dry areas, monitoring the pump system and checking the central controller to ensure it is properly programmed.
- Weekly maintenance often includes observing sprinkler operation to make sure they are properly rotating and that there are no leaks or clogged nozzles.
- Less-frequent but important jobs include semiannual pump system maintenance and raising and leveling sprinklers. According to research at the Center for Irrigation Technology, simply raising and leveling sprinklers can improve playing conditions and result in as much as a 6% water savings.

Changing the oil in your car and performing routine maintenance keeps it running smoothly and prevents breakdowns. In much the same way, a golf course irrigation system needs preventive maintenance to remain operational so that it can help maintain healthy and playable turf, especially on those hot days when it is needed most.