



Green Section

BEST MANAGEMENT PRACTICES CASE STUDY



Using best management practices has made Park City Golf club a leader in their community's water conservation efforts.

BEST MANAGEMENT PRACTICES FOR WATER CONSERVATION

Park City Golf Club | Park City, Utah 84060

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ISSUE

The cost and availability of water is one of the biggest challenges facing the game of golf. The municipal Park City Golf Club has plenty of water when winter snow is still melting in the mountains, but the summer months heat up quickly and evapotranspiration rates skyrocket, making water management a challenge. The management team at Park City Golf Club is fully committed to leading the community in efficient water use. The golf course uses only the minimum amount of water necessary to maintain healthy turfgrass and quality playing surfaces.

ACTION

The golf course management team takes a proactive approach to conserving water, setting an example in the community by using several best management practices:

- In 2013, the club installed new sprinkler drives and nozzles, several in-ground moisture sensors and variable frequency drive (VFD) pumps. Updating the irrigation system has increased water-use efficiency and decreased the need for daytime watering. The staff routinely levels sprinklers and trims the turf around them to maintain and improve distribution uniformity.
- A daily visual assessment of the golf course helps determine watering needs. The maintenance team also examines soil samples from tees, fairways and roughs to evaluate soil moisture levels. This information is combined with regional weather data, sensor data and 24-hour weather reports to develop a nightly irrigation plan. The maintenance team regularly adjusts the operation time for individual sprinklers and keeps the course slightly dry ahead of forecasted rainstorms.
- The rough is irrigated at a deficit to conserve water in the summer months and demonstrate good stewardship. From June through August, one or two part-time staff members are assigned to spot water for several hours each day to supplement nightly watering and improve overall water-use efficiency.
- Varying levels of water conservation are demonstrated to the golfing public on the driving range. The practice area also is used to demonstrate drought emergency contingencies.

RESULTS

Based on a standard [water budget](#) that accounts for the size of the golf course, grass species, annual evapotranspiration and the annual rainfall, Park City Golf Club could use about 327 acre-feet of water per year. Due to excellent water management and water conservation techniques, Park City Golf Club only used 147 acre-feet of water in 2015, 180 acre-feet less than what the water budget predicts. Using water efficiently on the golf course translates into real benefits for the community. One acre-foot of water is enough to support the annual water consumption of about eight people. Therefore, saving 180 acre-feet of water is equivalent to the annual water consumption of 1,440 people. Park City Golf Club prides itself on being a good steward of water resources and being at the forefront of water conservation efforts in the community.