# **USGA** CASE STUDY

# Best Management Practices Resource Management

Dealing With The Rising Cost Of Water By Emphasizing Playability Over Color

## Mid Pacific Country Club Jason Amoy, superintendent

Kailua, Hawaii, 96734

#### Issue

While Hawaii often is referred to as "paradise," the ever-increasing cost of water has been anything but paradise for Jason Amoy, superintendent at Mid Pacific Country Club on the island of Oahu. Built in the 1920s, Mid Pacific Country Club is one of the oldest golf courses in Hawaii. The bermudagrass playing surfaces are well adapted to withstand the windy and dry conditions common to the eastern coast of Oahu. However, due to the absence of quality well water, no nearby source of recycled water, and limited natural rainfall, the golf course must buy potable water-which is when "paradise" is lost. The problem truly escalated when the cost of water increased 43 percent over a 7-year period, reaching a level that caused major issues for the economic sustainability of the course.



The cost of water had become a major issue at Mid Pacific Country Club by the late 2000s. Reducing water use and other inputs in the roughs was the first step toward addressing the high costs associated with a totally green golf course.

#### Action

Mid Pacific Country Club budgets \$360,000 annually for water at a rate of \$4.53 per 1,000 gallons. Without natural rainfall or a less-expensive option, Amoy was given only one choice to control water costs—use less water. The decision was made to reduce overall water use and focus on playing conditions rather than color; the days of green fairways and roughs were over. The focus became considerable ball roll in the fairways and greener conditions in the areas that have the greatest impact on playability, such as tees, greens, and green surrounds. The process started nearly a decade ago by dramatically reducing water use on the practice facility and roughs. It has evolved into major water use reductions across all portions of the golf course.

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### Results

Amoy estimates that he has reduced overall water use by 21 percent in the past seven years. Unfortunately, to keep pace with annual rate hikes of 9 percent, Amoy has still been forced to increase his water budget. Without water budget increases the golf course would have been forced to close or deal with large cracks in playing surfaces built on expansive clay soils. Areas of the course that exhibit the greatest soil contraction have been identified and receive water to control cracking.

When asked how golfers have responded to the need for using less water on the course, Amoy says that the response has been overwhelmingly positive with many golfers enjoying the longer ball roll in fairways. Scores have not necessarily improved, but the golfers at Mid Pacific Country Club do get to play a golf course that truly is fast and firm—the way turf should be maintained for golf.



There is still ample water to maintain turf health and enhance recovery from traffic on heavily used portions of the golf course like tees, green surrounds and greens. However, irrigation has been significantly reduced in the fairways and rough to create firm-andfast playing conditions without the normal concern for color.

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