

Native Grasses Yield Water Savings

Camelback Golf Club – Ambiente Golf Course
Aaron Thomas, director of grounds operations

Scottsdale, Ariz. 85253

Issue

The Ambiente golf course at Camelback Golf Club in Scottsdale, Arizona, was almost 35 years old and needed renovations. The management team wanted to improve the golfer experience and create a more sustainable golf course by reducing water use.

The Ambiente golf course was comprised of approximately 220 acres of irrigated bermudagrass and lined with mature eucalyptus and pine trees. To reduce water use, the renovation plan involved removing many of the mature trees and significantly reducing the irrigated turfgrass acreage. At the same time, it was important that turf reduction areas offered an attractive visual experience for golfers and homeowners. Many golf courses in the desert Southwest have reduced water use by replacing turf with decomposed granite. At Ambiente, the goal was to replace irrigated turf with warm-season grasses and plants that are adapted to the arid environment.

Action

The golf course architects completely renovated the golf course and removed most of the trees. In addition, the course now had only 80 acres of irrigated turf. The remaining 140 acres were hydroseeded with a mixture of native grasses, desert plants and wildflowers. During establishment, the hydroseeded areas received about 60 percent of the total water that would have been applied if the areas remained bermudagrass. The long-term goal was to irrigate the naturalized areas at 30-40 percent of what would be required to maintain bermudagrass. Irrigating at this rate should sustain healthy, but not overly dense native grasses.



Native grasses and desert plants replaced 140 acres of irrigated turf at the Ambiente golf course, saving more than 43 million gallons of water annually.

Results

Approximately 43 million gallons of water per year are being saved on the renovated golf course. In 2014, the agronomic staff applied only 13 inches of irrigation to the naturalized areas. This is just 22 percent of the water that would be required to maintain bermudagrass and overseeded ryegrass. Aaron Thomas, director of grounds operations at Camelback Golf Club, is quick to point out that the new naturalized areas require as much, if not more, maintenance than turf areas. However, the water inputs are much less and as the naturalized areas mature water use should decrease even further.

As with any project, there were challenges along the way. One of the primary challenges was managing water in the naturalized areas during and after establishment. At first, there was pressure to produce a dense, lush stand of native grasses and wildflowers. However, dense vegetation slowed the pace of play because golfers found it difficult to find and advance balls that entered the naturalized areas. The agronomic team learned that using less water created a thinner stand of grasses and vegetation, ultimately producing a more natural-looking and playable desert grassland. Now golfers can locate their ball in the naturalized areas and hit a recovery shot.

With the increasing cost and scrutiny of water use, saving water is essential to the survival of every golf facility. The renovated Ambiente course at Camelback is an excellent example of how golf courses can be successful and maintained in an environmentally sensitive manner.