



Water Budgets: A Hydration Plan for Golf Course Turf

As a golfer, it is second nature to grab a bottle of water to stay hydrated during a round of golf on a hot day, but have you ever wondered how much water the turfgrass you are playing on needs to stay healthy and hydrated? Many golf course superintendents can answer that question with amazing precision through the use of something called a water budget. Here's how it works.

A water budget is calculated using a formula that takes into account the following variables:

- The size of the irrigated area.
- The amount of water lost through evaporation from the soil and transpiration through the plants.
- The average amount of rainfall, adjusted to account for runoff
- The type of grass species

Creating a water budget establishes a benchmark for how much water a golf course should theoretically need during a given time period. The superintendent can then compare that estimate with actual water use, gaining a better understanding of water management on the golf course. Differences between estimated and actual water use could simply be the result of unusual weather, or those differences might identify ways that water management could be improved.

Using a water budget to accurately estimate a course's water requirements can translate into better playing conditions for the golfer, lower maintenance costs, and improved resource management. Keeping grass healthy enough to withstand golfer and maintenance traffic without making it soft and spongy is a delicate balance. Developing and using a water budget can help tip the scales in favor of healthy turf, plenty of ball roll, and enjoyable days on the course.



A water budget estimates the amount of water a golf course needs each year to stay hydrated



A water budget promotes the efficient use of water and the energy needed to pump it onto the golf course.



Water budgets give golf course superintendents information that helps them maintain healthy turf with desirable playing characteristics, such as firm conditions with plenty of ball roll.