

The USGA Green Section Record



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What Drought Restrictions Mean For Golfers

Restrictions result in significant changes in course management and appearance.

by [Charles "Bud" White](#), director, Mid-Continent Region

The drought has a grip on golf courses that many have never seen. It is affecting turf and tree health on practically all courses in the lower Mid-Continent Region.

These conditions require a significant change in course management:

- Responsible water conservation
- Water rationing
- Protecting turf and trees that are in survival mode
- Maintaining playability as well as possible

First of all, aesthetics are out the window. Any golfer who is upset about brown areas on the course has not been outside. Superintendents have courses in survival mode, plain and simple, and their programs must be supported by management and golfers alike.



This drought level requires special maintenance practices to protect turf and trees, including raising cutting heights, adding potash to fertility programs, watering as deeply as water limitations allow, using water bags on key trees, and, the biggest one, restricting carts. Golf carts can impose severe damage in drought conditions, even on bermudagrass, and as a result, a certain amount of cart restriction is essential in such severe conditions.

Another important planning requirement is to maintain water availability through July and August if quantities are limited. Many superintendents are accustomed to balancing water availability in August, but this drought has forced some courses to implement water rationing ever since April or May.

[**Read the rest of this article.**](#)

Why Can't The Golf Course Irrigation System Keep Up?

Given the cost and coverage of today's computerized systems why should a drought impact the appearance of the course at all?

by [James F. Moore](#), USGA Green Section

During drought conditions, many golfers wonder why the irrigation system cannot keep up. After all, there are sprinklers all over the place and they run automatically, right? Shouldn't an irrigation system that costs more than a million dollars be able to keep the course well-watered in spite of the drought?

Although the complete answer is complicated, there is one simple fact that everyone should understand. Irrigation systems are designed around average annual rainfall. Here is how this works.

The irrigation designer looks at the monthly average rainfall totals for the region. This is compared to a chart that calculates how much water the plant uses each month (transpiration) and another chart that shows how much water is lost through evaporation. The term that combines these two plant factors is *evapotranspiration (ET)*. The irrigation system is then designed around the month with the largest deficit.

As one example**, look at the following table:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
ET*	2.5	2.5	4.2	5.1	6.5	6.3	6.5	6.5	6.0	4.8	4.2	2.5	57.6
Rainfall*	3.0	3.2	2.7	4.0	4.2	3.3	2.7	2.5	3.0	2.7	3.3	3.5	38.1
Deficit*	-0.5	-0.7	1.5	1.1	2.3	3.0	3.8	4.0	3.0	2.1	0.9	-1.0	19.5

* All units in inches

** Values will change depending on region and grass type

In this example, the largest deficit is four inches in the month of August. The irrigation system typically would then be designed to be able to apply one inch of water per week. Since most golf courses do not want large sprinklers operating while players are using the course, the system must be designed to apply the needed amount of water at night.

But what happens in a drought? In this example, the data was collected from an area that received less than one inch of water in the month of May this year. Therefore, the deficit for May was more than 5.5 inches (May ET of 6.5 inches less the one inch of rain). A system designed to apply four inches in a month cannot keep up, and something has to give.

[Read the rest of this article.](#)

2011 U.S. Amateur Public Links Championship 2011 U.S. Women's Amateur Public Links Championship June 27 - July 2 Bandon Dunes Golf Resort

A USGA Green Section podcast with Larry Gilhuly

by the USGA Green Section Staff

Hosting one national championship is enough to tax the most accomplished courses and talented maintenance staffs. Imagine the challenge of hosting two - at the same time. The Bandon Trails and Old Macdonald layouts will host the 2011 Amateur Public Links and Women's Amateur Public Links Championships concurrently at the Bandon Dunes Golf Resort (Bandon, Oregon). The men and women competitors will test their skills on both facilities resulting in one of the more unique USGA championship events.

Preparing the courses for these championships requires a lot of dedication and expertise. In this podcast (17 minutes), USGA Green Section Agronomist, Larry Gilhuly, and Managing Director, Kimberly Erusha, discuss the many activities that go on "inside the ropes" as well as some of the turf management issues that make Bandon Dunes a special place for golf.

[Listen to the podcast.](#)



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CHAMPIONSHIPS

Catching Up With ... 2001 APL Champion Chris Reardon
Ten years after winning the U.S. Amateur Public Links title in San Antonio, Chris Reardon is currently competing on the PGA Tour, where he has two victories and earned other status accolades. (Continued)

FIND A CHAMPIONSHIP

Search by Championship, Year, Location

CHAMPIONSHIP CALENDAR

Championship	Dates	Location	View
U.S. Open	June 15-19	Competition Course Club	View
U.S. Amateur Public Links	June 27-July 2	San Antonio Golf & Country Club	View
U.S. Women's Open	July 1-10	The Boulders Golf Course	View
U.S. Junior Amateur	July 18-23	South Mountain G.C. (South Course)	View
U.S. Senior Open	July 23-27	Country Club of America	View
U.S. Amateur	Aug 2-11	Country Club of America	View
U.S. Women's Amateur	Aug 12-19	Country Club of America	View
U.S. Senior Amateur	Aug 20-27	Country Club of America	View
U.S. Amateur	Aug 28-Sept 4	Country Club of America	View
U.S. Senior Open	Sept 10-17	Country Club of America	View

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- Catching Up With ... Chris Reardon
- Video: Mickey Fleet Press Conference
- Video: Reaction From Mickey's Dad
- U.S. Junior Amateur Qualifying Results
- U.S. Senior Open Qualifying Results

REIGNING CHAMPIONS

Championship	Champion
U.S. Open	Greene McCordell
U.S. Amateur Public Links	Chris Reardon
U.S. Women's Open	Emily Tubert
U.S. Junior Amateur	Paula Creamer
U.S. Senior Open	John Lyle
U.S. Amateur	Chris Reardon
U.S. Women's Amateur	Bernhard Langer
U.S. Senior Amateur	Devin Kang
U.S. Amateur	Peter Johnson
U.S. Senior Open	U.S.A.

On Course *With Nature*

The Audubon Cooperative Sanctuary Program Turns 20!

by [Ron Dodson](#), president, [Audubon International](#)

There are benchmarks in everyone's life, where taking the time to reflect on how you arrived at a particular destination helps determine what path you take in the future. As we celebrate the 20th anniversary of the Audubon Cooperative Sanctuary Program, I find myself thinking about the experiences in my life that have contributed to the creation of Audubon International and our approach to environmental education.

Many of our charter members remember the early years of the Audubon Cooperative Sanctuary Program and the controversy over our effort to help golf courses participate in an environmentally responsible approach to golf course maintenance. People have asked why, when most traditional environmentalists condemned golf courses, I chose to develop a program that welcomed them with open arms. Perhaps you need to know first that I discovered the game of golf as a teenager. I joined my high school golf team during my junior year and went on to play golf during my undergraduate years at college. And while I loved golf, my academic focus was on biology and the natural environment. What a great combination - playing golf, spending time outside, seeing wildlife. It wasn't until years later that I even began to think about the environmental connection between golf courses and wildlife habitat, much less about how courses were managed and what impact, if any, maintenance practices had on the environment.



Golf courses provide a great environmental connection between the course and wildlife habitat. Proper management practices can protect environmental concerns while producing quality playing conditions.

[Read the rest of this article.](#)

Regional Updates



Northwest Region

Golf Courses Are Beginning To Get The Message

by [Larry Gilhuly](#), director

During a visit to a private golf club during May, a very good question was asked when the subject of creating "firm-and-fast" conditions was discussed. During this conversation the question was, "Name some of the private clubs that have truly taken this approach, and how is it working?" In an area that is dominated by *Poa annua* and at a time of year when natural rainfall has taken care of water needs, no courses could be named. In fact, none that had been visited in 2011 had expressed a strong desire to head in this direction. Why? Players in the Pacific Northwest simply like the color green more than watching a well-struck shot that rolls an extra 20-30 yards. But is this still the case after visiting numerous private, public and municipal golf courses in the past month? Are there actually golf courses out there where players are not as interested in green color, and might actually allow some brown on their playing surfaces?

[Read the rest of this update.](#)

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by the USGA Green Section Staff

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