

What preventative steps can I take?

Michael Shaw from the National Golf Clubs' Advisory Association says that golf clubs can minimise the disruption to their courses with a little careful planning.

"Whenever the threat of a hosepipe ban rears its head, Golf Club Managers and Greenkeepers tend to panic. Everyone, including members, has to be sensible and bear in mind that with the British weather it is simply not possible to have Augusta style courses throughout the year."



Michael Shaw of the NGCAA

Michael says clubs should follow these simple steps:

- 1) Check the exact details of the drought order. It might just ban hoses but not sprinklers, and an order wouldn't normally apply to bore holes or water saved and recycled by the club. Once a drought order has been granted then the relevant water authority must inform its consumers either by post or through the local press as to the extent of the restrictions being placed upon them.
- 2) Meet your greenkeeper and agronomist. Make sure you discuss the situation, including the worst case scenario, and work out an plan action. This might include reducing the size of the greens or not dewing the course each morning.
- 3) Brown isn't a problem. Accept that keeping the grass alive is the one overriding issue. This doesn't necessarily mean having it a beautiful green colour the whole time!
- 4) Contact your neighbouring water authority. It might well be that your neighbouring water authority doesn't have a ban in place. Most are happy to sell their waste water but bear in mind the storage issues.

Regarding the vexed question of whether or not members can claim a refund for the days on which they are unable to play because the course is out of commission, Shaw is adamant:

"Clubs can rest assured that members don't have a leg to stand on - although clubs try their utmost, no club will ever guarantee that a course will be fit for play 365 days a year. Given the British weather, this would be madness!"

What would you do? Desperate times call for desperate measures.

Billy McMillan, Greenkeeper for Tyrrells Wood GC in Leatherhead, kindly took the time to tell me how the golf club - recognised as one of the finest golfing venues in Surrey - was coping, since their water supply was cut on May 27.

As soon as Sutton and East Surrey Waters Drought Order, (restricting non-essential use of water), came into effect, the first thing that Tyrrells Wood did, was inform membership. Billy explains:

"We made membership aware of the situation and explained that it would be a tough year ahead." Billy, who described the drought as the most disastrous to happen to golf courses in the south east in decades, continued: "We put a contingency plan in place and prioritized the greens, but this in turn causes stress factors with the tees. We have employed good greenkeeping. Our cutting frequency has gone down, therefore the grass is longer needing more top dressings.

Tyrrells Wood are relying on their borehole for 45% of their water, should the flow rate in the river Nole go below a certain level, then the worry is that their abstraction licence may be cut by 50%.

Billy explains that the fact of the matter is: "Should water be stopped, grass will die." Drastic measures are being considered if the drought intensifies, the main one being buying water. At present the golf club pays Sutton and East Surrey Water 97p per cubic metre for water, should the club buy "grey" water - water that comes out of sewage works or water that hasn't passed sufficient tests to become drinking water and is therefore not fit for human consumption - they will have to pay over 20 times the market value at £22 - £25 per cubic metre.

Billy's brother Ian McMillan, Course Manager at Walton Heath GC - who recently hosted the US Open Qualifier - in Tadworth, Surrey, has recently bought two tankers and is training staff to ferry water from another resource.



Tyrrells Wood GC

IC SurreyOnline recently reported that Redhill and Reigate Golf Club are also planning to use "brown" or "grey" water to help them cope with the drought. If the warm weather continues, the club will need to import this water from Oxted. The club are concerned that members of the public might think they are breaching the recent drought order put in place by Sutton and East Surrey Water, if they are seen watering their greens.

Aeration Additives Conserve Water

Since hose pipe bans in the south of England were first announced, Terrain Aeration have been injecting water storing polymers as part of their deep, compressed air de-compaction treatment.

Injected on the final air blast and using dried, milled seaweed as a carrier, the polymer crystals travel into the newly created underground fractures and fissures where they are capable of expanding to 100 times their original size following rainfall or irrigation.

Operations Director, Lynda Green, who can remember aerating with water storing polymers on Local Authority sports pitches under similar drought conditions in the early to mid 1990s, says that in her experience, the crystals, once in place in the root zone are active for up to 10 years.

"The polymers act as an underground reservoir, absorbing water when it is available, ready for use by grass roots during dry periods," she says. "As soon as the water content of the crystals has been exhausted, they will revert to their original size until they are once again replenished."

Water storing polymers are suitable for injection during the company's aeration treatment of all amenity turf including golf courses, sports fields, and parks and gardens. Trees and shrubs, whether established or newly planted are also ideal candidates.

For further information contact Terrain Aeration on

Tel: 01449 673783.



Little Ashton golf course using water storing polymers.

New Turf's Suited to Drought

Developed in the scorching Portuguese climate, Xeris grass, with its 3ft 6in root system, passed the test this season at Ipswich Town's Portman Road.

Requiring less watering and able to withstand heavy usage by vehicles and pedestrians, this new type of grass was laid on Real Madrid's

football pitch and has been tested on various golf courses. Suffolk based Sovereign Turf, developed Xeris south of Lisbon, where temperatures can reach the high 30s and rainfall is very low.

Zeba, a starch based polymer, claims to improve soil moisture retention and water availability to the roots of grass plants. Environmentally safe, this product is made from corn and biodegrades over 12 to 16 months.

Zeba can cut watering needs for a year, by capturing water as it enters the soil and preserving it for plant use. It can absorb more than 400 times its weight in water, helping greenkeepers to make the most of soil moisture and reducing plant stress caused by heat and limited water.

For more information visit www.logicalliance.co.uk

BIGGA bulletin board - www.bigga.org.uk

Boreholes and irrigation water have both been hot topics on the BIGGA members bulletin board recently, so I feel it's only right to discuss these alternatives in view of the drought.

The period between February and October last year was the driest on record and this has resulted in renewed interest in new and upgrading irrigation systems on our golf courses. While the general level of irrigation provision on UK golf courses has improved significantly, there is a need to make better use of these systems.

As discussed earlier, greenkeepers wishing to take more than 20 cubic metres of water a day from an underground source, for example a borehole or well, or from a river or stream, need to obtain an abstraction licence from the Environment Agency. The agency has the power to cut existing licences and to decline new bore hole drillings. While boreholes are a dependent option for water supplies, it's important to take into consideration the cost of setting up the abstraction, this can be hundreds of thousands of pounds, but if droughts become a regular occurrence this is an important option to consider.

Reed bed treatment systems have grown in popularity in recent years, although they have been around naturally for a considerable time. They can be built as a complete system, with say some form of primary treatment to remove the gross pollutants, followed by a reed bed treatment system. There are two types of reed bed, namely a vertical flow and horizontal flow system.

Reed beds are proven to be very effective at removing toxic elements from water, but on the downside, these systems require a large land area for correct treatment, and this needs to be taken into account when choosing the system. Anyone wishing to install a reed bed needs to obtain a discharge licence from the Environment Agency. On the upside, reed beds prove to be much cheaper than a waste to water system.

Another viable method for re-using and filtering water is Sustainable Drainage. SUDS (Sustainable drainage systems) are made up of structures built to manage surface water run-off. SUDS provide treatment for surface water, using the natural processes of sedimentation, filtration, adsorption and biological degradation. Sustainable drainage systems benefit from managing runoff flow rates and protecting or enhancing water quality, while also, being sympathetic to their environmental setting.