

The water restrictions imposed throughout much of the south of England in April have caused much confusion amongst greenkeepers in the affected areas.

Whilst water shortages were not unexpected, some of the sudden and varying messages from water companies were. The news that some golf courses are now categorised as 'gardens' and subject to the same restrictions was a prime example.

This article hopes to highlight the varying experiences of course managers in dealing with increasingly adverse weather conditions as well as muddy regulations from authorities.

Ian Streeter, Course Manager at West Sussex Golf Club, has a limited amount of water in a borehole. He said readings taken from this borehole indicated the aquifer that they pump from was at the same level as last year and therefore had not recharged through winter. Ian then is in the position of having water available, but how much he does not know.

He said: "We are limited to 2.5 million gallons, so we can't use any

more than that from the borehole. I've spoken to the Environment Agency and at the moment they're quite happy for us to pump from that well."

Ian had spoken to his water company, Southern Water, about using mains water if the borehole dried up and continued: "Apparently if I need to use mains water, they're quite happy for me to do so on greens only and that is only to maintain them, to keep the grass alive. So that is their take: greens only to keep them alive."

Some golf clubs that draw all of their water from the mains have fallen into the unenviable position of being unable to use their irrigation systems.

In the past weeks, though, a number have already successfully lobbied their water authorities into granting them an exemption from the ban. One example was a club that did not want to be named, in the Thames Water region, and was given an exemption up until June.

The course manager from this club said: "My problem is, is that the exemption we've got currently is right and in place, but if they suddenly come to us and say "no it's

Woburn GC, showing the effects of a drought ridden fairway.
Courtesy of Alan C Birch

not" then things become difficult. I think it's a very grey area at the moment."

As the exemption is only up to June, the course manager was thinking about how to water their greens after this time.

"At the moment we've started to collect rainfall, but I would require a minimum of 20 cubic metres per day through the hot weather just to keep the greens alive. After that they would deteriorate and probably quite rapidly," they continued.

Alan Pierce MG, Course Manager at Ham Manor GC, in West Sussex, is in Southern Water's region. Alan has an abstraction license from the Environment Agency for 1.6 million gallons per year, for what they determine as the growing season from April until September.

The license applies to the Black Ditch which runs all the way through Sussex to the River Arun and then out to sea. This ditch runs through the course and is water table controlled, so is always at the water table level. As this is Alan's only source of water, he is completely at the mercy of nature when it comes to watering his course.







INSET ABOVE AND LEFT: Splendid views of Ham Manor

He said: "As it stands at the moment it is slightly lower than it has been previous years but not so much so that it's causing me any great concern at the minute."

Alan explained that because his club has an older abstraction license, the Environment Agency's 'Hands off Flow Restrictions' do not affect his allowance of water.

"In terms of the position that people are in the one we're in here I'd rather be in than any other because of the older license and being able to physically see how high or low the water level in the ditch is just by going down and having a look," he continued.

Alan gave some figures for how much rainfall had fallen at his course between January 1 and April 1 for the previous three years. In 2009 there was 240mm, in 2010, 249mm, in 2011, 186mm and in 2012 just 54 mm.

Les Howkins MG, Course Manager at Richmond Golf Club, in Surrey, is under Thames Water and said: "They're currently saying that you're not allowed to water gardens. Their description of a garden now includes any sports or amenity surface and the only exemption is for national or international sporting events. The only other exemption is on health and safety grounds so

you could possibly argue that if you don't water your greens it's going to be an unsafe playing surface because of the dangerous bounce."

The Environment Agency has sent out questionnaires to all of its license holders, including farmers, golf clubs and sports grounds, asking if they would be willing to reduce the amount of water they extract.

Les extracts water from boreholes for irrigation and has offered to voluntarily reduce his extraction by 25%.

"We'll just have to be more careful. Use wetting agents and ensure aeration is completed regularly so water gets in there. As it happens, since they've imposed the hosepipe ban, it's rained every day. I think for some golf courses it could be a long summer if they're not allowed to water," he said.

Billy McMillan, Course Manager at Tyrrells Wood Golf Club, in Surrey, recalled previous drought orders in 2006. He said: "It was probably one of the toughest green-keeping years of my career. One of the toughest things to overcome was explaining to my membership why our course wasn't in as good a condition as they expected."

With a hosepipe ban in place and unable to draw from the mains



supply, the club successfully lobbied for a limited, yet valuable, supply from their water company.

He went on to explain how lessons learnt from that experience could now be applied to the current situation with regards best practice.

"All those days of deep aeration, organic matter reduction and it has to be said, sometimes painful, operations in the eyes of the golfer will result in a kinder transition through a drought situation. Additionally under drought conditions we wouldn't want to make for ourselves any additional problems by introducing further stress to the grass plant. Therefore at our club we follow a fairly simple philosophy to include a reduction in mowing levels coupled with slightly higher cutting heights than would be deemed normal in the main playing season. Sometimes we let clippings fly and use them as a mulching on some areas."

Another interesting point he highlighted was that of public perceptions. He mentioned that when their newly-commissioned irrigation system was being tested during March 2006, it had been raining at the same time. The club received a letter from an irate passer-by who was disgusted to see irrigation on during rainfall. Billy continued: "So it is important what the general public perceive and can show us in a bad light, so we always have to be mindful of these things in tough times."

Continuing good practice was something other course managers believed important to prepare for environmental stresses.

Alan Pierce said: "We use wetting agents every month and we're trying to be as pro-active as we can. We've made a conscious effort to go round and check that every sprinkler is only doing the area intended and no more. We do monthly aeration with 8mm solid tines to keep the surface open and the water penetrating through. A big thing for us is that we don't let anyone play in adverse conditions, such as frost, throughout the winter, so we're not asking the surfaces to cope with more than they can handle."

Alan had written a letter to his local water authority highlighting how pro-active and efficient the club was at managing their water, with no unnecessary irrigation. It also stated that irrigation equipment was monitored to ensure its fully working order.

He said: "I'm sure they're aware that golf courses aren't just throwing water on, but I wanted to highlight to them that just throwing



MAIN ABOVE: Tyrrells Wood Golf Club, how it normally looks (LEFT) and under drought stress (RIGHT)

ABOVE and BELOW: more shots of Tyrrells Wood GC

water at our surfaces can be detrimental to what we want to achieve anyway."

We all know that a staggering amount of water is lost by water companies through leakages, so it is important for golf courses not to be tarred with the same brush.

Ensuring nozzles are not worn, sprinklers are spaced properly and water is distributed efficiently has never been more important. Being sure that irrigation pipes are not leaking is also key to good practice. New Water Regulations Advisory Scheme (WRAS) guidelines have been published relating to marking systems used to convey nondrinkable or non-potable water.







Some water companies are already stipulating that pipework used for these purposes should have WRAS recommended markings. Currently the SportsPro PE100 pipes, by Revaho, are the only PE pipes to come with this mark as standard.

As drawing water becomes less reliable, clubs were looking at contingency plans for the future.

Ian Streeter said his club had installed two 74,000 gallon holdABOVE: Images kindly supplied

**BELOW LEFT: Dried out turf** gives a free hand to drought resistant weeds like cree cinquefoil and yarrow shown

**BELOW RIGHT: Drought leaves** turf with large patches of white clover which continue to grow

ing tanks, late last year, because of water shortages in the past. He

"So now we have got a bit more storage, but not enough to last us long-term. We're thinking about going through planning to try and get our own reservoir put in.

"We think with these water shortages, it's not going to get any better long-term and we don't want to risk trying to beg steal and borrow from the water authority or rely on a well that we may get stopped from pumping out of, so we will try and put our own reservoir in if we can get planning. Hopefully from that we can be self sufficient."

Les Howkins said: "I've asked for a quote from a few companies about getting water brought in in tankers just in case we do get cut off. I've had prices up to £65 per cubic metre, so if I was going to water just greens I'm looking at about 25-30 cubic metres per day.

"So it soon adds up. I'm lucky at where I work because we could probably afford to do it for a few months if we needed to, but not everywhere could."

Alan Pierce said he had looked into the feasibility of having facilities for the future where they use their abstraction license on days when it was not needed, to fill up an alternative supply like a tank or reservoir. These were in the early stages of planning.

One of the main causes of contention is how the water companies have dealt with the situation. Les Howkins said: "The water companies should have gone into more consultation with sports grounds, golf clubs and bowling greens. At the end of the day, they are businesses employing a lot of people and if clubs, in the worst case scenario, fold, there will be people out of jobs. They said that car washers are still allowed to use hosepipes, well for me the golf course is a commercial business and if you can't maintain the quality of your surfaces, you're not providing the service to your customers."

A course manager said: "The water company has now come up and said that you can still use water if you're cleaning patios down or cleaning cars for a business. So they're effectively choosing which businesses can use water. This is the problem I have, but they're not actually writing this down.

If all these ways of getting water are taken away from us and we do have a big heat wave, will there be clubs switching on their irrigation systems regardless because they're going to lose customers?"

Another course manager echoed this idea and said: "The maximum fine for breaking the restriction is £1,000 so it could almost be worth doing that instead of buying it in."

The extreme likelihood of mains and other water sources becoming unavailable in the coming months means preparation and action is now the key.

Lobby your water authority, from a business perspective, with the reasons why golf courses need water to operate and highlight your responsible usage.

As examples in this article have shown, lobbying does work and will continue to yield results, which may provide a lifeline for clubs through the summer months.

Because drought problems are not going to go away, it is becoming increasingly more important to store water and a self sufficient club with its own supply would have peace of mind during future restrictions.



