

Golf courses, far from being the habitat destroying, carbon churning beasts they are sometimes perceived, are often the exact opposite. New eco-friendly technologies that not only boost a club's environmental credentials, but also help reduce running costs, are widespread.

Sustainability is becoming a key factor and alternative energy sources may now be viable to clubs that could potentially act as a business selling energy to the national grid, as well as providing electricity or heating for their own use.

From deer to grass snakes, a whole host of wildlife species seek golf courses as a haven to inhabit and as a place to rear their young. Jim Cook visited four golf clubs to find out more...



Thorpeness Golf Club, on the east coast of Suffolk, sits within a 300 acre site. Sprawling areas of rough, deep rough between holes, heathland, wetland, copse trees, regenerating gorse and heather create a number of habitats for a multitude of wildlife species and rare plant types.

A man-made mere with several islands tends to attract birds you would expect to see, and some you certainly would not. Course Manager, Ian Willett, explained.

What course can you go to at five o'clock in the morning, drive out onto the course in early spring, just as the sun is rising and hear the boom of the bittern? We get that from the north warren which is at the back of the fifth. You've got the northern diver out there and we've even had a white egret pair nest and rear two young. They got blown off course during the spring ended up here and lived it up. We were running around with cameras thinking it was white herons, but when we got a decent shot in and got the book out we realised they were white egrets nesting on the mere."

## "The team and I know that everything we do on the course has an environmental impact - large or small" Ian Willett

Ian is backed up at the club by a team that has the same attitude toward the environment as he does.

"The team and I know that everything we do on the course has an environmental impact - large or small. We are lucky because a member, called Dr Ray Harding, has been keeping records over 25 years and his journals about the golf course have been published. He has carried out studies and he keeps us on track, so we discuss everything we do with him."

Dr Ray Harding spoke of changing attitudes towards golf clubs.

"The Wildlife Trust and other organisations always tended to look at golf courses as a problem, but now they see it the other way round; that they are a reservoir or a last resort for wildlife, who can then re-colonise. That's working quite well so at least we have achieved that."







Ian spoke of how a disastrous situation was turned into a positive

"Last year we've had arsonists in and set fire to various parts of the golf course. So we went in this year and cleared the site. Literally we scrubbed it down to the seed bed took all the timber out and piled it to one side which will give us an adder hibernacula, and we are trying to encourage a few grass heaps around the course. The snake population isn't that great. Adders we are fine on and we have hundreds. Grass snakes, we've got them but they are not that active, so we decided to leave the odd grass heap to try and encourage the females to lay their eggs there."

Although all wildlife was welcome on the course, some had become a bit too cosy.

"Last year we had about six to eight stoats going on the course, lowering the rabbit population, but this year I think I have seen just one stoat. The rabbit population has gone absolutely through the roof-there are thousands of them. We use a pellet chicken manure mix though, because the rabbits don't like the smell of it."

Ian said that one year of carelessness could effectively undo 30 years of hard work.

"You need staff coming in after you who think the same way as you and carry on the work.'

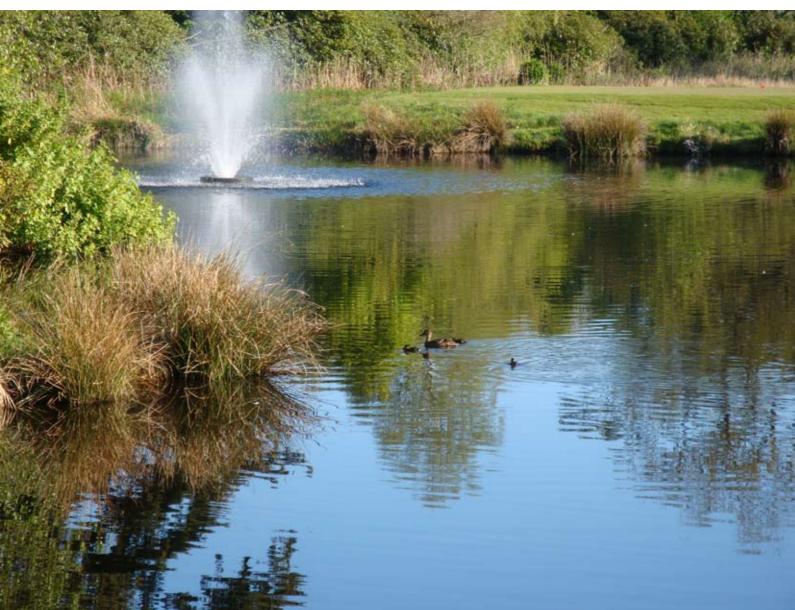
It was not only on the course where environmentalism was considered.

"We use air jets for the showers, where it takes a certain amount of air into the head so you are cutting down the amount of water you use, but still getting a good shower.

We use low energy bulbs and have a recycling area, which is also used by locals. We also use a water recycling system at the sheds."











## Meldrum House Country Hotel and Golf Club, in Scotland, completed a new greenkeeping centre in January which contains a number of ecofriendly technologies.

The £750,000 development stores all the maintenance machinery and contains a wood pellet or log burner to provide heat and hot water for the complex. Insulating materials in the walls help reduce heat loss.

Rainwater collected is used to wash machines, and then filtered to be used again.

Kenny Harper, Golf Course and Estate Grounds Manager, said the club was working towards self sufficiency.

"At the moment we're using pellets for the burners, but we hope to use wood only from the estate by this time next year. We think it is extremely important to adopt a responsible approach to energy and water usage and as a result, eco-planning has become an important part of our business."

Aside from the new centre, Kenny saw sustainability as the way of the future.

"It's the way everything is going now. I'm interested in land and management. We are only here for a short time so I think we should try and leave it in the best state we can.

The guys use electric buggies instead of petrol and diesel, and

it's just little things like that to help keep the carbon footprint down. Things are going to change. We are going to have less and less pesticides to cure problems so we need to start managing how we run our businesses. It's long term and it is not going to happen overnight, I mean fungicides will be here for a while yet, but there are less and less available every year. We use a fair bit of organics instead of synthetics. As far as

from fertiliser and pesticides. This spring, carp were introduced to the ponds and instead of using chemicals, it was hoped would be a more natural way of clearing pond weed. Kenny was looking forward to seeing the results.

"It is early days at the moment and the fish are only four to six inches so it will be a little while before we see any results, but if you don't try how are you going to know if it's going to work?"

"We think it is extremely important to adopt a responsible approach to energy and water usage and as a result, ecoplanning has become an important part of our business" Kenny Harper

fertiliser is concerned, we don't spray pesticides as a preventative, only as a cure. We wait until there is a problem and if there is no other answer we'll use them."

The golf course at Meldrum House is a thriving eco system. Retired graphic designer and starter at the club, Morgan Fisher, has recorded over 60 different types of animals and birds that inhabit the course, from Roe Deer to buzzards.

The many lakes and ponds at the club have buffer zones around them to prevent run off





"Everything we do at the club is looking at reducing carbon" said Colin Webber, Managing **Director of Portmore Golf** Club, in North Devon.

They are currently undertaking the year-long process of testing wind speeds to check whether or not wind turbines will be viable at the club.

He admitted that although he used to hate the appearance of turbines, they have now grown on him, due partially to a trip to Scandinavia.

"I went on a trip to Denmark and I saw just how far behind the rest of Europe we were. It woke me up. At first you see them all over the place and then after a while you don't even notice them."

Colin mentioned that the block of concrete used to secure the turbine was the biggest problem for him.

"There is so much carbon tied up in making that block of concrete that you're looking at almost 17 years worth of carbon. That's if you use new concrete. The past few small projects I've done, I've used recycled concrete and so far so good it seems to work really well."

Colin said the wind turbine would provide electricity for the clubhouse, charge the buggies and also put electricity back into the national grid. This could then be sold back to the grid at a rate of 36 pence for every unit of energy produced.

Photovoltaic cells, which operate like solar panels but only need light, not sunlight, to work, for the clubhouse roof were also being looked at.

"In the interim, we've fitted sensors to every room, use low energy bulbs, put time switches on things like fridges, the big drinks dispenser, because people don't need an ice cold drink at seven in the morning. It's not until you actually stop and look at these things that you realise; no you don't need that. It's the same with hot water. It needs to get to 64 degrees once a day, not all day, so we heat it for three or so hours overnight at the cheap rate then we turn it off with a time switch. The shoe cleaning compressor is on from 10am to 6pm instead of being on all day and night."

Solar panels have been fitted to buggies in some countries and this was an idea Colin had tested and was making preparations to adopt.

He was also looking into an all-electric Jacobsen mower, the Eclipse, and eventually it was hoped diesel usage could be eliminated completely for all maintenance machinery.

After working with the soil

"The wind turbine would provide electricity for the clubhouse, charge the buggies and also put electricity back into the national grid" Colin Webber

association Colin now uses organic nitrogen sources as fertiliser, such as fish oils and seaweed, as a trial, on Portmore's par-three course.

"You've got to do it gently, as I learnt with bio-diesel; you can jump in too deep and get yourself in trouble, but so far so good. We will not do away with the modern products, but just reduce reliance on them."

They have built their own environmental wash pad as well as their own high volume, low pressure sprayer so compost can be drenched onto the course.

Last year Portmore recycled close to eight tonnes of cardboard and glass.

Colin mentioned that electricity usage constituted 50% of their carbon production, so introducing bio fuels to do this job was at the top of the to do list.

'As well as having an aesthetic effect a wood burner would heat the clubhouse, and also provide hot water."













Images show The 'Tree O'clock' world record attempt in action

In 2007, Maesteg Golf Club, in Wales, formed a course development group to enhance all areas of the club cost effectively, but with particular attention toward sustainable, environmentally friendly solutions, since the course proved to be home to a wide range of ecological habitats.

The course is positioned in 150 acres of land, and tracts of deeper ecology rough grassland have been allowed to develop, which offer a habitat for ground nesting birds as well as a safe passage for small mammals and insects. Heathland and wetland areas provide a home for many various types of animals, birds and creatures including the carnivorous plant sundew and the rare marsh fritillary butterfly.

A showpiece project was a tree planting project funded by Better Woodlands for Wales.

Rhydian Lewis, Chairman of Greens at the club, explained.

'We put together an environmental plan and part of that was to come up with a tree planting programme across the course with the idea of planting about 9,000-10,000 trees. We worked together with Carbon Earth and secured funding from





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## "Maesteg Golf Club may well be pioneers in helping to solve a problem that has been a headache for greenkeepers all around the world" Rhydian Lewis

the Welsh Assembly Government then invited seven local primary schools to a tree-planting ceremony last year. So we have had the first phase of the tree planting and we have a second phase coming up this autumn and that should take us up to about 9.000 trees."

Maesteg also participated in the world record attempt 'Tree O'clock', whereby it was attempted to plant the most trees in a one hour time limit. An additional 600 trees were planted on the course for this.

Rhydian explained how recycled materials were now being used for standard drainage.

"We trialled the Aquadyne drain, made from recycled materials, on one of our greens and it had a big impact on a pretty bad area. Since then we have put some fairway drainage in with it as well. So we are trying to promote the use of recycled materials throughout our course.

The trials proved so successful

that the club has now invested in a specialist trenching machine, the AFT 45, which is being used to cut trenches to fit the Aquadyne precisely.

A drainage programme for the coming years will see these drains fitted around the entire course.

With regards recycling and sustainability, energy efficient bulbs are used throughout the club with as Rhydian said, "A significant reduction in costs."

He also mentioned the club's use of recycled artificial grass on the course.

"We have used the material on pathways and slip areas such as wooden bridges. Further plans are in place to use this material extensively for new and unique purpose.

"Maesteg Golf Club, in partnership with Envirosports Ltd, may well be the pioneers in helping to solve a problem that has been a headache for greenkeepers all around the world."