

# ENGLEFIELD ESTATE



*Englefield House and Deer Park, one of two mansions that sit within the 14,000-acre Englefield Estate. The forestry department has agreed with the FC and English Heritage to plant three hectares of new woodland (based on 1850 maps) in the parkland, to maintain the woodland feel around the park. The wooded area behind the house is a pleasure garden, and Greg Vickers is responsible for all tree surgery works around the estate. This house will be heated by a biomass boiler in winter 2013/2014.*

**The Englefield Estate is situated between Reading and Newbury, most of it lying south of the A4. The estate covers some 5,666 hectares in Berkshire and Hampshire, including 1,400 hectares of woodland and a Home Farm of 800 hectares. There are 23 let farms, a number of smallholdings, residential property, and commercial investments. There is also land in Inverness-shire and a London estate.**

Under the guidance of land agent Kenneth McDiarmid, the estate has successfully diversified its many assets. Income comes from agriculture, in-hand and let land, residential and commercial properties and other activities, including filming, shooting and polo. In addition, the estate issues annual riding permits for use in their FSC-certified woodlands.

Covering 25% of the estate, some woodlands lie within the North Wessex Downs AONB. Others are wildlife or countryside heritage sites. Pamber Forest is an SSSI (Site of Special Scientific Interest) for invertebrates (Purple Emperor butterflies amongst others). 200,000 visitors a year use the hundreds of miles of footpaths (permissive access) that cross 750 hectares of broadleaf (coppice with oak standards) and 650 hectares of conifer (Scots pine and Corsican).

These woodlands are the latest assets to receive an injection of commercial thinking. For the last three years, Greg Vickers, Englefield's most progressive head forester in 50 years, has managed them for multipurpose forestry, through commercial timber production.

At the Estate Office, Kenneth McDiarmid fills in Englefield's timber history. "Pamber Forest was harvested during WW1 and replanted between the wars. In WW2, a static steam engine drove our sawmill 24 hours a day, producing construction timber for the war effort. With a reduced workforce, the woods were neglected during the 1940s and 50s. When I came here in 1969, there were 24 staff in the forestry department and our woods underwent small regular thinnings. The mill closed in the late 1970s and our forestry department is now Greg, three in-house staff and two teams of subcontractors."

The estate's core business is managing 700 properties. As well as providing a historical backdrop for domestic cottages and commercial buildings, the woodlands add (unusually) between 5 and 8% to the total estate economy. When he took the role of Head Forester in May 2008, Greg Vickers saw his primary objective as increasing the capital value of the forests. The second was to pay for it. "In order to achieve my objectives, all areas had to pay their way."

Now 41, Greg grew up outside

Stockport. Aged 17, he worked for two years with Economic Forestry Group in Cumbria. Graduating with a BTEC Forestry Diploma at Newton Rigg, he began a 16-year tour of the Forestry Commission, first joining Forest Enterprise in South Scotland, then Forest Research (Technical Development Branch) in the Midlands, and finally moving to Wales as Operations Manager for Grants and Licences.

Greg says, "I am grateful for my time in the FC. Research taught me how to think differently, how to break a problem down and come up with solutions. Operations taught me how to manage people, big budgets (£4.5 million cash grant spend) and to make sure the private sector got the right grants, in a timely fashion."

Greg arrived at Englefield as the recession hit. "Generally, the woodlands were in a well managed condition. The

quality broadleaf was sold at roadside, while the underwood went ignored. Conifer thinnings needed updating. I inherited a few naturally regenerating clearfell sites, and 14 hectares that needed restocking."

One way to increase the capital



*Estate office with land agent Kenneth McDiarmid and Head Forester Greg Vickers.*

value of a woodland asset is to remove the poor quality timber (replacing it with something better) and to plant bare land, but restocking costs. "I realised that across 750 hectares of broadleaved woodland, I was (potentially) looking at more than 300,000 tonnes of hardwood, and that, if well managed, underwood can be a valuable resource. Before the demand for firewood, the only way I saw to utilise the low-grade timber was to go into direct production and work hard to find our own markets. We were lucky. The year after deciding to improve our low-grade crops and gearing up for direct production, the firewood boom began. This gave us a head start in the market."

By introducing a commercial coppice programme – coppicing 14 hectares of 40-year-old understorey (chestnut, ash, alder and cherry, and retaining standard trees) a year – the underwood is slowly being brought back into a 25-year rotation. "When firewood sold for £18 a tonne, the estate paid £16 per tonne to have it felled. In order to pay my wages and retain our staff, firewood needs to make over £30 a tonne. Having made the decision to fell low grade hardwood, it was fortuitous that prices rose."

The in-house forestry department manages the restocking sites and



*200-hectare Pamber Forest has 60,000 visitors each year. Here, sweet chestnut logs harvested by Highfell are piled beside the newly built 1,000-metre track, which has allowed Englefield into the woods to manage them. "This is a block of broadleaf with standards. Chestnut is one of the things we struggle to sell. Two local guys cut chestnut stakes. We have sold 3,500 and have orders for others. The mid-grade logs go to make cleft stakes. We have just sold some oak to Pontrilas Timber. The smaller chestnut bars will go as sawlogs to Inwood Development to make chestnut beams."*

maintains the woodland infrastructure (fences, tracks and roads). It is not geared up for timber production, so Greg has mentored two local subcontractors, who coppice, thin and clearfell to his exacting standards. Using a Daewoo harvester, Timberjack forwarder and Doosan excavator, father and son team, Ricky and Brian Eaton fell the large broadleaves and conifer, cut much of the coppice, and carry out civil engineering works. Highfell Forestry runs a four-man motor-manual team with forwarder. Between them, they can cut any-

thing that the market requires.

In order to handle cut volumes efficiently, Greg invested in two forestry loaders (with 1.5 tonne cranes to handle softwood sawlogs weighing a tonne) and the department now loads timber lorries for dispatch. With the help of a Leader Grant, they invested in two new road haulage trailers for firewood transportation. For woodland maintenance, they bought a BPS compact quad tractor with flail, for reducing brash, ride-mowing and inter-row weeding.

Much of Pamber Forest's 200 hectares lay uncut for years and were dark and dense. Some areas were well managed for conservation, but over 120 hectares had not been touched. Greg views it like any other commercial woodland. "Because of Pamber's quantities of timber, I insisted that we went in there. The Wildlife Trust, Natural England and the Forestry Commission (FC) came on site to listen to me explain why the woods needed managing. Luckily, all parties agreed that management would benefit wildlife."

With an FC grant, Englefield embarked on a three-year, 3,000 metre road-building programme through Pamber Forest. The first 1,000 metres were finished in 2011. "Because the first 1,000 metres run through the SSSI and cross a stream, I had to get eight different permissions (consents) before we could start. Surely, that should be finalised by the FC before they award the grant. Last year, we thinned ten hectares and selectively felled five, bringing out 1,000 tonnes. This year we will do

the same. Making these woods commercially viable has been a big plus for the estate."

After three years in the private sector, Greg is sometimes bewildered by the bureaucracy forced on 'private' foresters, and is vocal within Confor about it. "I question the value of FSC certification in an already heavily regulated sector. We are regulated by the FC; we do not need an extra level of certification and I resent an unelected body auditing the estate. We stick with it because it gives us access to grants and might be interpreted in the wrong way if we pulled out. The FC is an exemplary body and I find them very helpful in terms of one-on-one customer service, but the English grant schemes are over-complicated. Rather than managing outcomes with grant schemes, they are trying to manage woodlands through grant schemes. Using a 1.2, 1.8 metre or a spiral tube to protect an oak tree is a forester's decision, not a grant scheme decision. They need to trust the private sector to manage woodlands well and reward it. Currently, the English grant scheme does not reward good woodland management."

By going into direct production, Englefield has reduced cut volumes of prime quality hardwood. "In 2011, we selectively felled 50 tonnes of high-grade oak at the end of its rotation. On early thinnings, we took out 300 tonnes of firewood, 500 tonnes of mid-range beams, plank and fencing oak sawlogs and 1,400 tonnes of coppice, averaging 100 tonnes per coppiced hectare."

Englefield's conifer plantations are managed with a mix of clearfell, continuous cover and natural regeneration. "When I first arrived, plantings of Corsican pine were infected with red band needle blight and needed opening up. First pine thinnings were brought up to speed across 70 hectares of Corsican. The estate increased its total cut volume of small roundwood from around 500 tonnes to 2,500 tonnes in my first year.

"Corsican pine first thinnings supplied a buoyant local fencing market, which brought a very good return. We continue to thin 80 hectares of softwood a year. Since the bottom fell out of the sawlog market, we have not felled 'large' conifer for three years. Englefield has the best nightjar site (five breeding



*Eaton Bros' 20-tonne Doosan excavator with mounding head. Ricky Eaton is preparing the ground for replanting (filling in gaps with Douglas Fir) by mounding. Greg says, "This area is heavy with bracken. Rather than using chemicals, we found that the mounds control the weeds very well, getting two years of weed-free forest floor. We plant in the mound or shoulder (a foot down). In spring, the soil catches sun and warms quicker, encouraging root growth of the trees and getting quicker establishment and better survival rates. On one site last year, we had 95% survival. Mounding also means that we can come back and find the trees, because we know where the mounds are. Englefield is the second-driest parish in Britain. Last year, the mounds did not dry out. They retained moisture and drew it up from the ground."*

pairs) in West Berkshire and clear-fell operations restart this year with two hectares, keeping six to eight hectares as final seeding thinnings [wider spaced conifer with similar benefits to clearfell]. This offers us reduced restocking costs and softens the visual impacts of clearfell in high-use public forests, keeping the public onside.

"I inherited 14 hectares of clear-fell in need of restocking. It was a huge financial burden and I never want that situation again. I still invest £30,000 a year (in excess of 20,000 trees) on restocking and gapping up, on top of natural regeneration. To increase the productivity of the woodland, I would like to raise the yield class by one increment. Ours is just under 8 across all forest land, and we would like it just under 10. By converting more of our Scots pine to high-yielding conifers such as Douglas fir, Western Red cedar and some Grand fir, this will take 20 years."

On the estate's defunct gravel pit sites, Greg is diversifying further. "This year we will trial 2,000 eucalyptus in a mixed stand. In summer, they produce a flammable vapour, which in a pure stand could be a fire risk. We need to think carefully about where we site them."

Before Greg arrived, Englefield sold timber only to timber merchants. "I found our firewood and local fencing markets. Last year we also sup-

plied a number of sawmills (Vastern, Pontrilas Timber, Giddings, Chantler and PK Ewens) and we continue to supply Bedmax with 1,200 tonnes of softwood a year. We used to send 2,500 tonnes of woodfuel to AHS Woodfuels until they were bought out by Stobart Biomass and the local AHS depot shut down."

To keep B&R Eaton and Highfell Forestry busy year round, Greg looked outside the estate. Since 2010, he has undertaken forest management and harvesting work on two neighbouring estates and a number of smaller family woodlands. These make up over 600 hectares. "Our first client, Great Asculum Estate, owns 75 hectares of pine plantations and broad-leaved woodland on Wakefield Common, a site of high public access. I wrote their first management plan, applied for grants and felling licences and give professional advice. Highfell Forestry thinned the site over two years. The first year, we faced public opposition. In our second year, there was none. I think the public realised that it was a better place; lighter, airier, the

wildlife more diverse. In the broad-leaves there is now plenty of light. They are developing a good understorey and herb layer.

"From my time at the FC, I learned that one good market is worth hundreds of thousands of pounds in grants. Undermanaged woodlands are ignored because there has been no market. Give people a market and they do not need grants. From Wakefield, we took out timber for shavings, fencing, sawlogs and 1,000 tonnes of firewood. None of this work could have been done without the firewood market."

In 2011, Greg oversaw the harvesting of 12,000 tonnes of timber, all sold. Of the total, 5,000 tonnes went for firewood, with 2,000 tonnes coming from Englefield. "We delivered 1,500 tonnes of firewood locally with our own tractor and trailers, 2,000 tonnes sold within the county and 1,500 tonnes further afield.

Englefield is looking at supplying an internal market with woodchip. Kenneth McDiarmid explains: "We are looking at biomass heating for the winter of 2013/2014. In phase one, a boiler taking 500 to 700 tonnes of woodchip (chipped by external contractors) will heat the main mansion house, the church and a further ten houses. We have done the feasibility study, drawn up plans, and had prices. We are about to put in a planning application for a new building. The size of the first boiler has yet to be decided. We will install a second boiler

during phase two."

Kenneth (who retires this year) says of Greg, "The woods needed someone with youthful enthusiasm and technical knowledge. The new view has been good for the woods and good for the estate and has fitted in well with the other activities."

Greg says, "For the Benyon family, it is important that as well as the woodlands being well managed, the estate looks well managed. 25% of my time is spent managing our roadside, parkland and garden trees. I drive around the estate once a month with Sir William and the feedback is always positive. When I speak to Richard, he is positive."

Well on the way to achieving his primary and secondary objectives and adding further to the estate's economy through forestry, Greg says, "For me, one of forestry's greatest benefits is employment. Englefield keeps ten men in work throughout the year. This is ten families that derive a living from the natural environment. What annoys me most is seeing undermanaged woods that could be providing jobs. It is time that we [foresters] stop apologising for doing our jobs, in what is probably the 'greenest' industry in the country. When we get on with managing the asset, the proof is in the pudding."

Carolyne Locher



*Douglas fir on the lower slope and pine at the top. This area will be staying as conifer. Where there are good remnants of older vegetation, Greg has reverted to PAWS sites. "Where we grow quality conifers – and we grow them well – I do not see the need to revert them. We will create 30 hectares of new woodlands in 2012. I have no hang-ups that we may be doing the wrong thing."*



*Highfell Forestry is Englefield's motor-manual subcontractor. Stuart has been cutting for a year. Greg says, "This is a rare sight – a young chainsaw operator."*