

Woodland Creation case study

Blenheim Estate

Planting 270,000 new trees to help the estate and its community to prosper



Photo: Nicholson's

Key facts

- **Site:** Blenheim Estate, Oxfordshire
- **Size:** 104 hectares with a further 47 hectares planned
- **Type:** Multi-purpose lowland woodland with mixed broadleaf, some non-native species and conifer
- **Species:** 27 species including oak, hornbeam, lime, sycamore, wild cherry with a woody understorey. Experimental species are also included to assess climate change resilience. A small percentage of conifer will provide a productive timber crop and winter habitats for wildlife
- **Date:** England Woodland Creation Offer (EWCO) application approved in October 2021. Planting began in November 2021
- **Grants:** Blended finance from Forestry Commission England Woodland Creation Offer (EWCO) and private investment from Morgan Sindall
- **Key objective:** Convert low-grade, unprofitable agricultural land into new woodlands to deliver multiple benefits including carbon sequestration, improved biodiversity, water quality and public amenity access, starting with a 30-year woodland management cycle

"The health of the area around an estate directly affects the wellbeing of the estate itself. By investing in new woodlands, we are making Blenheim a better place for the community to thrive"

Roy Cox, Estate Director



Investing in trees for all to enjoy

The Blenheim Estate is set in the beautiful Oxfordshire countryside, covering 12,000 acres. Home to Blenheim Palace, it is a world heritage site and features several Sites of Special Scientific Interest (SSSI). Its farming heritage spans hundreds of years, but with the phasing out of the Basic Payment Scheme (BPS) the owners began seeking new opportunities. Aware of the dual crises of climate change and biodiversity loss, they have seized the opportunity to invest in trees and woodlands and capitalise on the myriad of economic, social and environmental benefits trees offer.

The Dorn and Glyme Valley Woodland Creation Scheme will create 7 new woodlands. It is one of the largest woodland creation projects in the South East to date, transforming unproductive, low-grade agricultural land into a sustainable and commercially viable asset.

The owners are planting over 270,000 new trees to sequester 20,000 tonnes of carbon over 25 years, which will boost biodiversity and generate wider community benefits – including a forest school and 15km of new woodland trails to enjoy and explore. The project will help the estate achieve their net zero aims and continue to prosper.



Deer fencing

Diversity and management delivering wider benefits

Species diversity and active management help to secure the long-term health, resilience, and profitability of Blenheim's new woodland. Planting has incorporated an innovative mix of 27 carefully selected species, from native broadleaves like hornbeam, lime, oak, sycamore, wild cherry, Norway maple, alder and beech, to experimental species such as paulownia, tulip tree and robinia. Several conifer blocks will deliver a productive timber crop and winter habitats for wildlife.

This diverse mix will help reduce risk from pests and diseases, and improve resilience to the effects of climate change. The controlled planting of novel species will provide valuable insight for studies on climate change resilience carried out by the University of Oxford.

The design also includes an understorey of woody shrub species to create a diverse and self-sustaining ecosystem. Planting areas will be seeded with wild grass and a flower mix.

The scheme incorporates long-term management plans, beginning with a 30-year management cycle with the Forest Canopy Foundation. Effective woodland management is vital for carbon sequestration, biodiversity

gains and to achieve a profitable timber crop year-on-year. Well managed woodlands will not only ensure the estate can sequester carbon now, but far into the future through carbon being locked into timber products.

The trees have been planted using biodegradable tree guards made of corn starch, supporting the estate's aim to be plastic-free as far as possible. This approach provides valuable insight for ongoing research into plastic-free alternatives. In parallel, rabbit and deer fencing will protect young trees against browsing mammals.

Great oaks from little acorns grow

Many of the oak trees have been grown from acorns collected from Blenheim Park – providing a natural connection to the park and its heritage up and down the valley. A total of 11,402 acorns have been handpicked. Each one is labelled with the tree it came from. They will be planted along paths at entry points and key locations as special feature trees.



Photo credit: Nicholsons. Blenheim Valley.

Unlocking blended finance – through EWCO and private investment

The Dorn and Glyme Valley scheme is multi-faceted and brings many natural capital benefits. It's been made possible through a blended finance model – a combination of the Forestry Commission's England Woodland Creation Offer (EWCO) and private investment from Morgan Sindall, who are purchasing the carbon sequestered by the trees to help offset CO₂ emissions.

The scheme secured over £350,000 in Additional Contributions through EWCO for its benefits to:

- **nature recovery** – by planting new native woodland in locations that will connect and expand existing woodland
- **water quality** – by carefully positioning woodland to help filter soil particles
- **society** – creating woodland close to people and granting permissive access via a 15km network of new paths

It also trailblazes use of the Grown in Britain metric, based on the UK Forestry Standard, to quantify the provision of ecosystem services on each site. Using the metric helped to secure the private investment from Morgan Sindall.

"Courage, creative thinking and hard work are required to create a space and framework to realise the best markets which, in turn, will empower farming and forestry to develop into unsubsidised commercial sectors"

Liz Nicholson, Forestry Agent

Top Tips

1. The Woodland Creation Planning Grant (WCPG) supports landowners in exploring the opportunities and constraints of a site. It helps facilitate a smooth transition of the final design to an England Woodland Creation Offer (EWCO)
2. Planting a diverse mix of species is important for overall woodland resilience and protection against pests and diseases
3. Active management, including ongoing deer and squirrel control, is vital to long-term success
4. Public access is not just a 'nice thing to do' – there are sound economic and business models behind it
5. Trees and woodlands provide a profitable investment

Wildlife, water and wellbeing

Woodlands provide huge benefits for people, nature, climate and the economy. The Dorn and Glyme Valley Woodland Creation Scheme at Blenheim is no exception:

- the biodiversity of the area will improve significantly – most of the woodland blocks are close to, or adjoin existing native woodland and will help expand and connect natural habitats
- a key objective is to reduce siltation of Blenheim Lake – with the woodlands carefully positioned to improve water quality by helping to filter soil particles – reducing the frequency and costs of dredging the lake
- the trees also provide natural flood management benefits, as well as further upstream in the Dorn valley – the Environment Agency are working with Blenheim Estate, Thames Water, and Evenlode Catchment Partnership to develop 'Stage Zero', a small slowing the flow project which will recreate the impact of beavers on a catchment
- the pandemic has demonstrated the value that trees, woodlands and open spaces have on our physical and mental health – the scheme will improve access to nature for the community by creating a 15km circular trail with benches and glades, connecting communities across the estate, and will host a new forest school

The scheme is designed as a 100-year project, leaving a lasting legacy for future generations.



Photo credit: Pete Seaward. Blenheim Estate.

Discover how woodland creation can benefit you

For guidance on woodland creation and information on grants and available support, visit: www.gov.uk/guidance/tree-planting-and-woodland-creation-overview

Find out how other landowners are benefiting from woodland creation, visit: www.gov.uk/guidance/tree-planting-and-woodland-creation-case-studies

