

# TREES AND WOODLANDS



## WHERE ARE WE NOW?

**The Forest of Dean is one of England's largest areas of woodland. Its scale, coupled with its long and intricate history, and the complexity of the underlying geology and diversity of soils, gives a uniquely varied and important woodland resource.**

The Dean is not all ancient woodland, as many areas have been cleared of trees for industry or agriculture since 1600. Nor is it all natural woodland as many thousands of trees have been planted over many hundreds of years; nor is it all native woodland, as many exotic species have been planted over the last 200 years. But those contradictions are largely irrelevant, as the longevity of woodland in this landscape has given rise to a diverse and intimate mix of trees and related species of plants, insects and animals that has national importance in its own right.

The Dean is, and always has been, a productive landscape, a working Forest. Timber has always been prominent, finding use as firewood, charcoal and construction timbers for ships, houses and furniture. Timber has always sat alongside provision of food, and the extraction of minerals. Today we also talk about the Forest's role as a vast store of carbon, and a provider of clean water and clean air.

The Forest has seen three major phases of woodland activity in the past 500 years that have had a profound impact. First, in the 17th century, the demands of the iron industry caused rapid and wholesale tree felling and coppicing of the standing trees to produce charcoal to fuel the iron industry. Grazing animals threatened the regrowth, and this decline triggered the 1668 Dean Forest (Reafforestation) Act, an Act to systematically replant the Forest. The political intent was there, but the Forest administration was weak, and the desired aim to widely replant was not achieved.

Subsequently, the 1808 Dean Forest (Timber) Act was passed. Accompanied by a renewed administrative vigour so the Forest was systematically inclosed and planted up. The trees planted were primarily oak, but other species including conifers were also used and the Forest became a test bed for new methods and approaches. The 19th century plantations were accompanied by drainage and fencing on a scale not seen before.

In the 20th century, the Forestry Commission came into being with the task of establishing the strategic reserve of timber, and a renewed energy was brought to planting and tending tree crops. Through the 1950s, 60s and 70s, different eras saw fast growing conifers favoured over the oak stands, until that too was reversed in the 1980s.

The result today is a complex landscape that shows large tracts of high forest oak and equally large tracts of conifer plantations being grown, often in mono-culture. There are precious few genuine veteran trees and little ancient old growth woodland and equally little traditional coppice, but what you do see are trees, hundreds of thousands of trees.

**Arguably, the forest contains more trees today than it has ever done in its past. Many of the historic open spaces have scrubbed up, many of the fields identifiable in photos from as little as 50 years ago have been planted, but today, those trees are under threat more than ever before.**

Pests and diseases have multiplied in recent years for numerous reasons. Grey squirrels are found in the Forest in plague proportions, stripping bark and taking out leading growth to disfigure and kill the trees, often in their teenage years. Many oaks are in poor health, with increased mortality rates as a result of acute oak declines. Ash stands may be on the verge of eradication from Chalara disease and many of the conifer species are similarly threatened.

Deer numbers may also be at their highest ever levels, having recovered from extinction in the 19th century, but with exotic species such as muntjac expanding rapidly in the forest to the detriment of our woodland flora.

Minimum standards of woodland management are set out in the UK Forestry Standard. The management of the timber and woodland resource in the Dean also meets the UK Woodland Assurance Standard, which sets a higher standard to be achieved and acts as the audit protocol for Programme for the Endorsement of Forest Certification (PEFC) and Forest Stewardship Council (FSC) certification standards.



Forestry Commission woodlands have been certified in accordance with the rules of the Forest Stewardship Council®



## WHERE DO WE WANT TO GET TO?

**In 100 years the trees and woodlands of the Forest of Dean will be vibrant, healthy, vigorous and thriving.**

The woodlands will contain a dynamic mix of tree species that are healthy and productive: the right tree in the right place for the right reasons.

The Forest will contain a diverse range of woodland types that respond to and reflect the changing soils and topography. There will be a productive blend of broadleaf and conifer trees, native and exotic species. There will be an intimate mosaic of silvicultural systems for continuous cover including high forest, pasture woodland and coppice; as well as a proportion of areas under clear-fell and restock systems to maximise diversity of stand structure.

Growing capacity, the ability of the woodland to grow and capture atmospheric carbon and produce usable timber, will be protected or enhanced so that the Forest retains relevance and value in the wider landscape, contributing to a healthy environment, climate change mitigation and economy.

Veteran trees of all species will be very much in evidence, both as single trees and stands of old growth timber.

Woodland design will be wind firm (ie. designed to be as stable as possible in strong winds), and designed to minimise fire risk, in particular the risk of a ground fire getting into the crowns (tree-tops).

The overall look and feel of the Forest of Dean will remain 'wooded'. There will be significant areas of functional open space, but they will aim to reflect and accentuate, through good design, the importance and scale of the surrounding woodland.

Those who live in or visit the Forest will understand the national and international value of the Forest, and its contribution to the wider environment and economy. Woodland operations will be understood and appreciated as a legitimate and supportive vehicle to maintain and enhance the Forest.



## WHAT ARE WE GOING TO DO?

### Our commitments:

**1** Increase the range and genetic diversity of our trees - aiming for the right tree in the right place for the right reason

**2** Make site by site decisions to develop and care for our woodlands

**3** Reduce the impact of pests and diseases on our existing and new trees

**4** Improve our operational planning and implementation of Forestry Standards

### **1** Increase the range and genetic diversity of our trees

Diversify the individual stands through use of natural regeneration and enrichment planting to encourage a wider palette of tree species, while recognising the importance of local species and the importance of genetic diversity. The aim is to establish the right tree in the right place for the right reason. This will require knowledge and practical understanding of, what tree species will grow best where (including taking account of soil type and soil water regimes now and as the projected result of changes to management practice and climate change), how they will interact with their neighbours, and what objectives they will fulfil and deliver.

### **2** Make site by site decisions to develop and care for our woodlands

Diversify stand structure, taking a site by site approach to decision making to determine appropriate silvicultural systems and individual interventions to maximise age class diversity, species diversity, manipulation of light levels (impacting on ground flora and regeneration), and to maximise local character. This will include identification of non-intervention, old growth, and coppice woodlands, for example. Our clear objective will be to reduce from the clear-fell / restock system.

### **3 Reduce the impact of pests and diseases on our existing and new trees**

We will improve our active management and effectiveness of our actions to reduce the impact of pests and diseases on standing trees and regeneration success. This will include, but is not limited, to control of grey squirrels, deer, insect pests and further improvements to, and enforcement, of biosecurity measures. We will seek to reduce our reliance on fencing to protect tree crops from deer.

### **4 Improve our operational planning and implementation of Forestry Standards**

We will refine the operational planning systems to take account of the increasing need for more detailed site by site assessments, and encourage greater use of natural processes to achieve the required objectives. We will strengthen the link between operational plans and execution of those plans.

We will steadily raise the standard we expect, enforcing the application of the existing Forestry Standards, as we aim to set exemplary standards of woodland management. We will work with our teams and wider forest industry to upskill all of those who are working in the woods so there is greater common understanding of what we are trying to achieve, and how each individual can help contribute to that.

**These are our principles of land management to safeguard and enhance our trees and woodlands in the Forest of Dean.**

