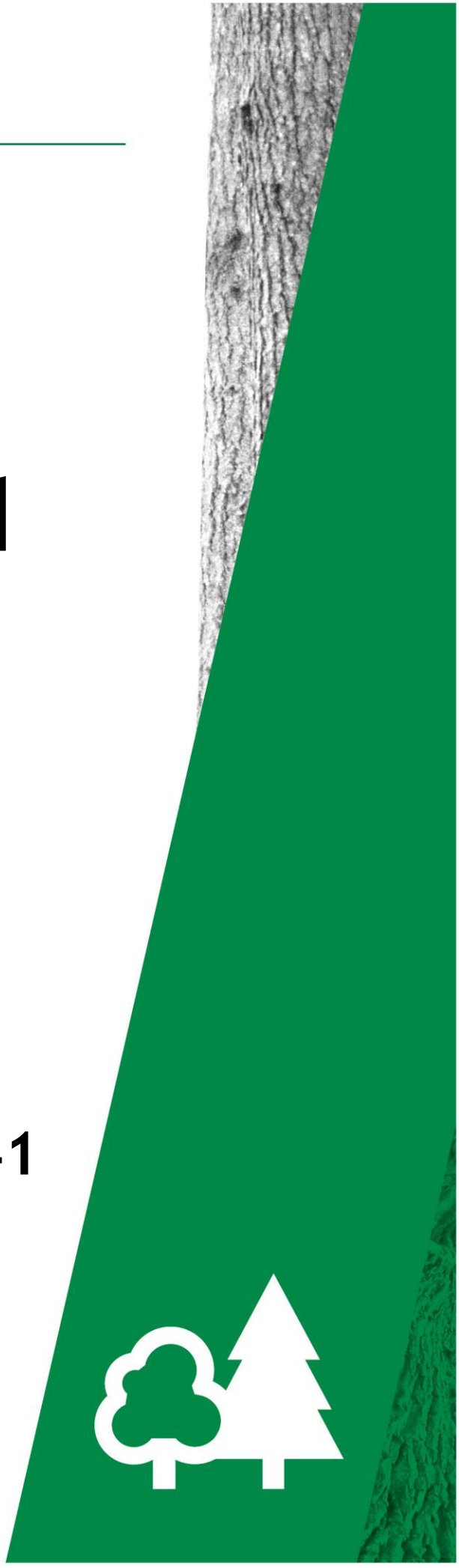
Forestry England

For external consultation - autumn 2024

Edgehills and Wigpool Forest Plan

2024-2034

Reference OP10/40/41



FSC www.fsc.org FSC® C123214

The mark of responsible forestry

Forestry England forests and woodlands have been certified in accordance with the UK Woodland Assurance Standard (UKWAS)

PEFC PEFC/16-40-1001 Promoting Sustainable Forest Management www.pefc.co.uk

Application for forest plan approval
Edgehills and Wigpool, Forest of Dean – XXXX 2024

Forest district	West England Forest District
Woodland or property name	Edgehills and Wigpool, Forest of Dean
Nearest town, village or locality	Cinderford, Gloucestershire
OS grid reference	Centre of the Plan area is at SO 6564 1683
Local authorities within the forest plan area	Herefordshire Council Gloucestershire County Council Forest of Dean District Council Hope Mansell, Mitcheldean, Longhope, Blaisdon, Littledean, Cinderford and Drybrook Parish Councils

Plan area	1394 hectares
Conifer felling	43.32 hectares
Mixed conifer / broadleaf felling for watercourse buffers	22.13 hectares
Broadleaf felling (coppice)	10.56 hectares

1) I apply for forest plan approval for the property described above and in the enclosed forest plan.

2) I confirm that the scoping, carried out and documented in the consultation record attached, incorporated those stakeholders that the FC agreed must be included. Where it has not been possible to resolve specific issues associated with the Plan to the satisfaction of consultees, this is highlighted in the consultation record.

3) I confirm that the proposals contained in this Plan comply with the UK Forestry Standard.

4) I undertake to obtain any permissions necessary for the implementation of the approved Plan.

Signed…

Kevin Stannard, Forest Management Director, West Forest District.

Date… XXXXXX, 2024

Contents

Forestry England - who we are and what we do

Forestry England is the country's largest land manager. Our purpose is to secure and grow the social, economic and natural capital value of the nation's forests.

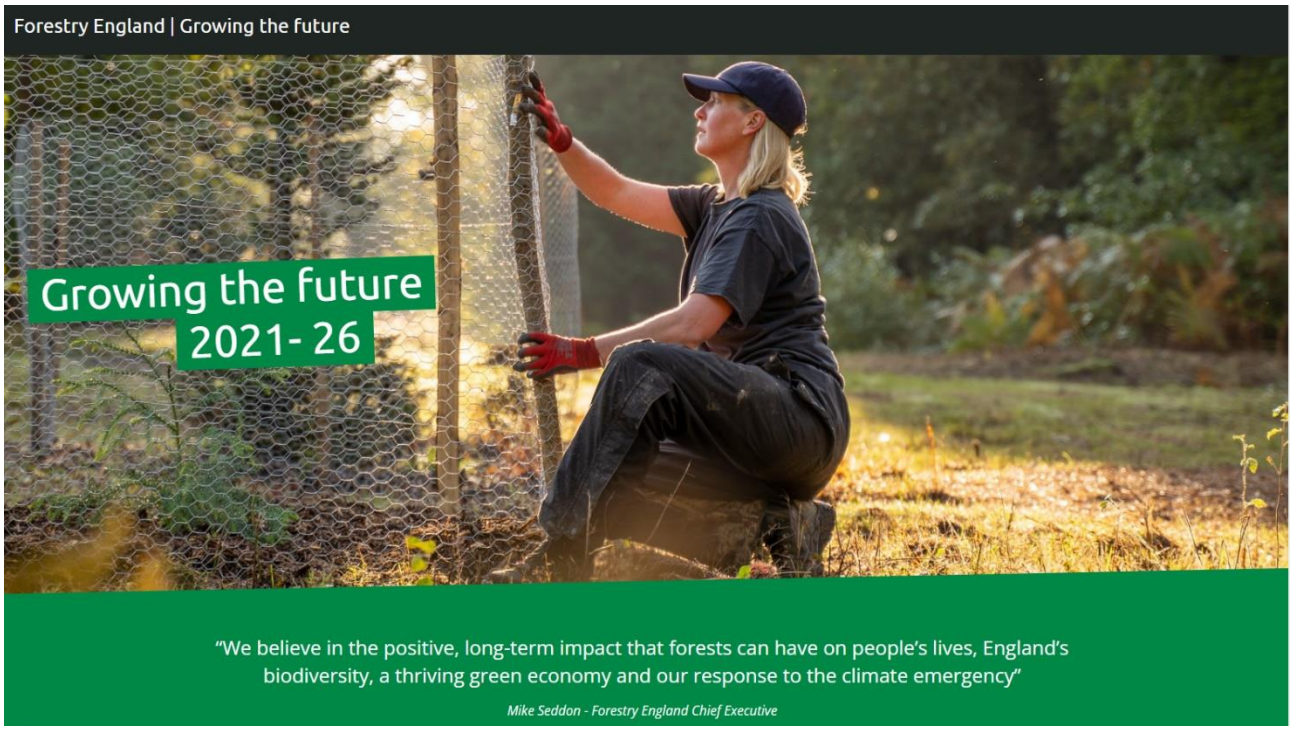
Our vision for wildlife…
The nation's forests provide the most valuable places for wildlife to thrive and expand in England.

Our vision for people…
The nation's forests are a living treasure for all, deeply connected to people's lives, improving the health and wellbeing of the nation.

Our vision for climate…
The nation's forests are resilient to climate change, increasing their value for communities by producing high-quality, sustainable timber and absorbing carbon emissions.

The above is taken from 'Growing the future: 2021-2026':
https://www.forestryengland.uk/growing-the-future

For more information about who we are and what we do, please visit:
https://www.forestryengland.uk



Our Shared Forest
The Forest of Dean Land Management Plan (2019)

Our vision for the Forest of Dean…

…to nurture a shared forest unlike any other

By allowing the decisions we take to be guided by the natural potential of the land, as well as the varied influences of our ever-changing world, we will create a diverse and inclusive forest that is a global example of what can be achieved through forward-thinking forestry.

Our Shared Forest (OSF) is a project to reshape and redirect our land management. It sets out an agreed, understood and supported direction to guide what the Forest will look like, feel like and be like in 100 years' time.

OSF is supported by a set of 'Principles of Land Management', which describe, for the Forest of Dean as a whole, what we will do to achieve the vision under the following headings:

- Trees and woodlands
- Wildlife and wild spaces
- Geology and soils
- Water
- Cultural heritage
- Built heritage and archaeology
- Community
- Recreation

For more information about Our Shared Forest, please visit:
https://www.forestryengland.uk/oursharedforest

The forest plan

The purpose of the forest plan is to apply the OSF principles to smaller management areas within the Forest of Dean. It focuses on the main features of each woodland, in particular the species and structural composition and biodiversity interests, and sets out proposals for how we will manage them to increase resilience, productivity and value for wildlife and people in the future. The plan is shared externally with the public, so that those who enjoy and value our woods can understand more about how we are managing them. It is also sent to the regulatory arm of the Forestry Commission for formal approval, after which it is used by the local Forestry England team to guide their work in the forest.

This forest plan is divided into three parts:

- Background information about the Edgehills and Wigpool forest block – location maps and key features (**pages 6-7**)
- A high-level summary of 'where we are now', and 'what we are going to do' in relation to each of the OSF principles of land management (**pages 8-26**)
- A more detailed look at the operational activities that we plan to implement in Edgehills and Wigpool over the next ten years, together with an explanation of how we will measure success (**pages 27-33**)

Edgehills and Wigpool - background information

Location

The Forest of Dean is situated in west Gloucestershire between the Rivers Severn and Wye (**Figure 1**).

Edgehills and Wigpool is one of six forest plan areas within the Dean. **Figure 2** shows its location in relation to the local towns and villages and **Figure 3** shows the plan area in more detail.

The majority of the area (apart from Flaxley Wood and Welshbury Wood) is within the statutory boundary of the Forest of Dean, a boundary which has existed for over 1000 years, where "the soil, timber or herbage belonged to the Crown". Now approximately 20% of land within the Statutory Forest is privately owned, while the rest is managed by Forestry England.

Figure 1 (above)
Map to show the location of the Forest of Dean, Gloucestershire, England

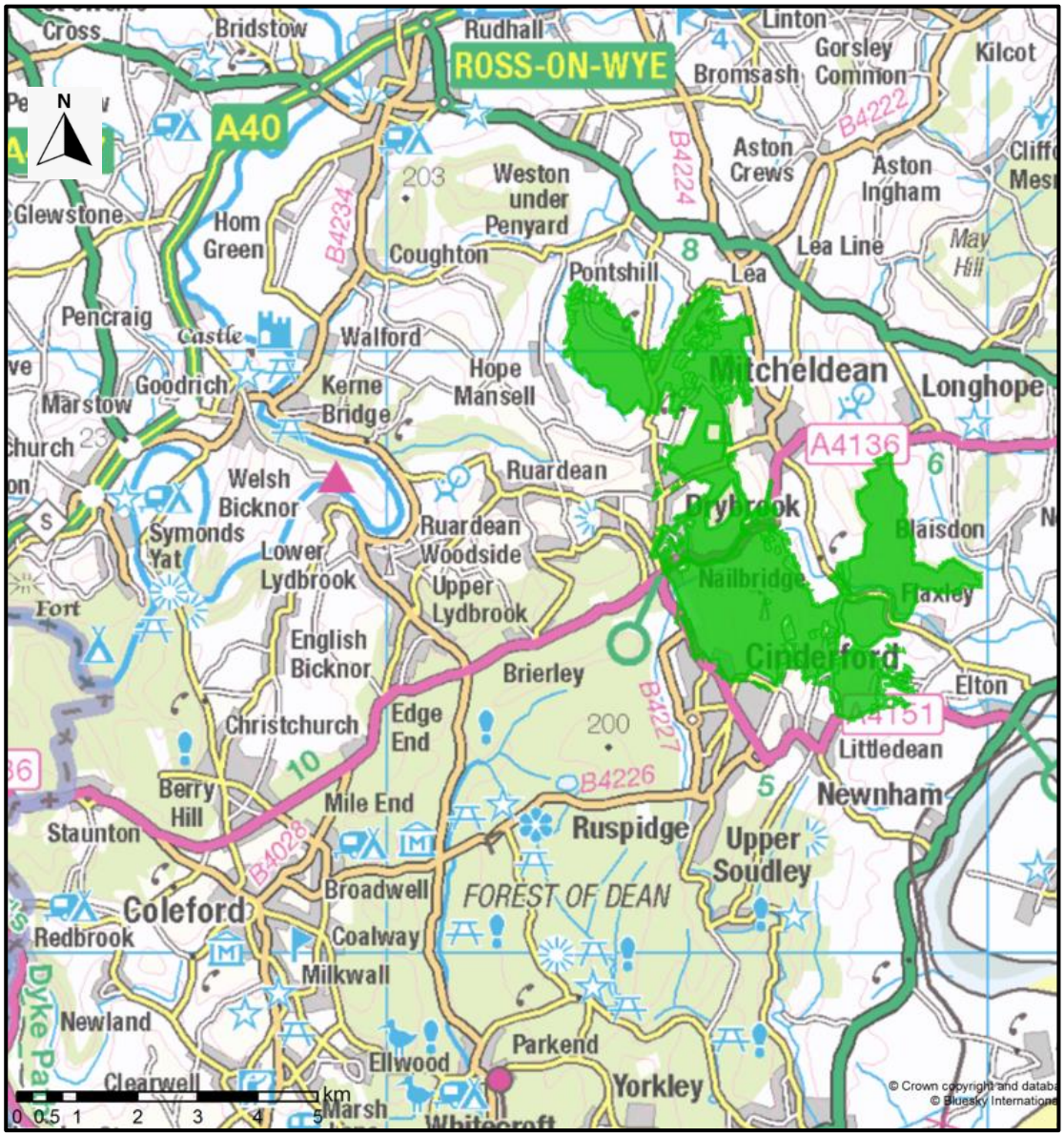


Figure 2 (left)
Map to show the location of Edgehills and Wigpool (in green) in relation to Forest towns and villages

Figure 3 – Map to show the main areas and some of the features of Edgehills and Wigpool

Lea Bailey
- steeply sloping to the west; visible in the landscape
- productive conifers
- goshawk, raven, firecrest
- decent quality oak at the northern and southern ends

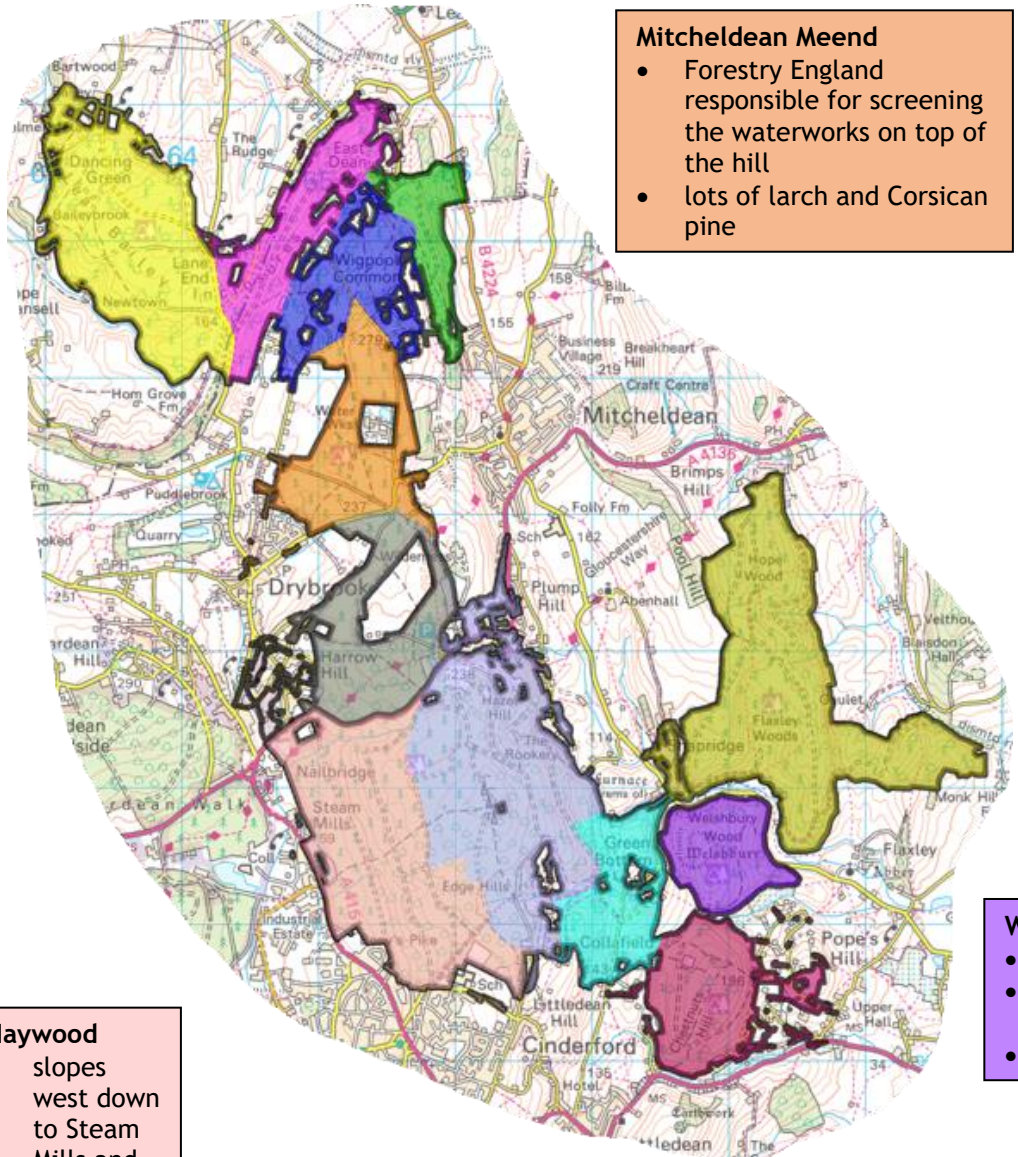
Lower Lea Bailey
- visible in the landscape
- good quality oak in the southern end

Lining Wood
- visible from the eastern side
- steep slopes
- mostly broadleaf

Wigpool
- heathland restoration
- ponds
- open space
- SSSI and SAC (bats)
- intimate mix of residential properties among the forest
- scowles

Mitcheldean Meend
- Forestry England responsible for screening the waterworks on top of the hill
- lots of larch and Corsican pine

Loquiers
- veteran beech avenue
- pond
- power lines
- public right of way
- area of private farmland in centre
- forest waste on western edge



Haywood
- slopes west down to Steam Mills and Cinderford
- visible in landscape
- recent diseased larch fellings
- veteran oaks in southern end

Edgehills
- heathland restoration
- open areas filling with natural regeneration
- ponds and wet woodland in northern end
- two SSSIs (and SAC) – quarry and bats
- Bull Engine House (listed building)
- mast

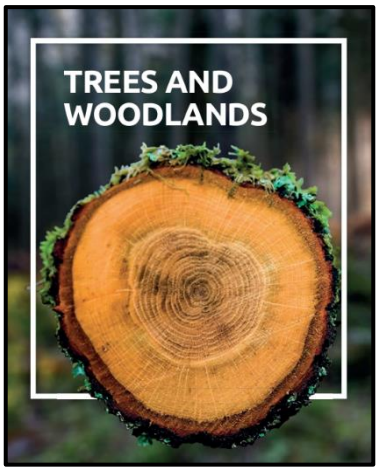
Green Bottom
- fast flowing watercourse from Edgehills
- mostly broadleaf - oaks
- trout hatchery in the former reservoir
- St Anthony's Well (listed building)
- Bordon Well

Flaxley Wood
- ecologically valuable woodland
- county wildlife site
- glow-worms, dormice
- permanently fenced coppice area
- visible in landscape from the east

Welshbury Wood
- county wildlife site
- iron age hillfort (scheduled monument)
- research plots

Chestnuts Wood
- visible in landscape
- county wildlife site
- mostly oak (some with acute oak decline) and sweet chestnut (several very large and old)
- trig point

Trees and woodlands - where are we now?



Species composition

Figure 4 shows that just over half of Edgehills and Wigpool's 1400 hectares is planted with broadleaves. Oak and beech are common, as are birch, sweet chestnut, holly and small-leaved lime (represented by the 'other broadleaves' category).

Conifers, predominantly Douglas fir, with significant proportions of Norway spruce, Scots pine and Corsican pine, cover around 35% of the plan area.

13% of the block is recorded as 'other / no species'.
This includes areas that have recently been felled or are being retained as open habitat, such as the heathland in Wigpool and the land around the ponds in Edgehills. It also covers areas of open, unplanted land, sometimes referred to as "forest waste" (**page 27**) on the edges of the block.

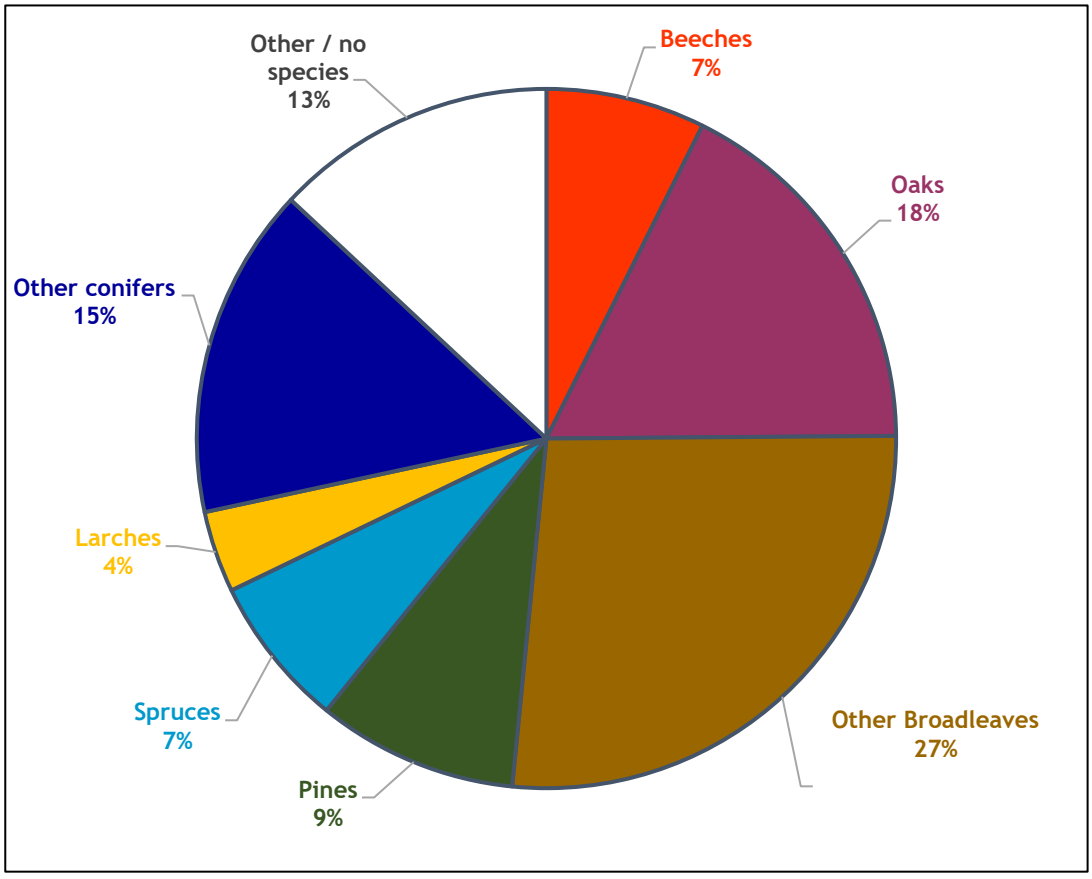
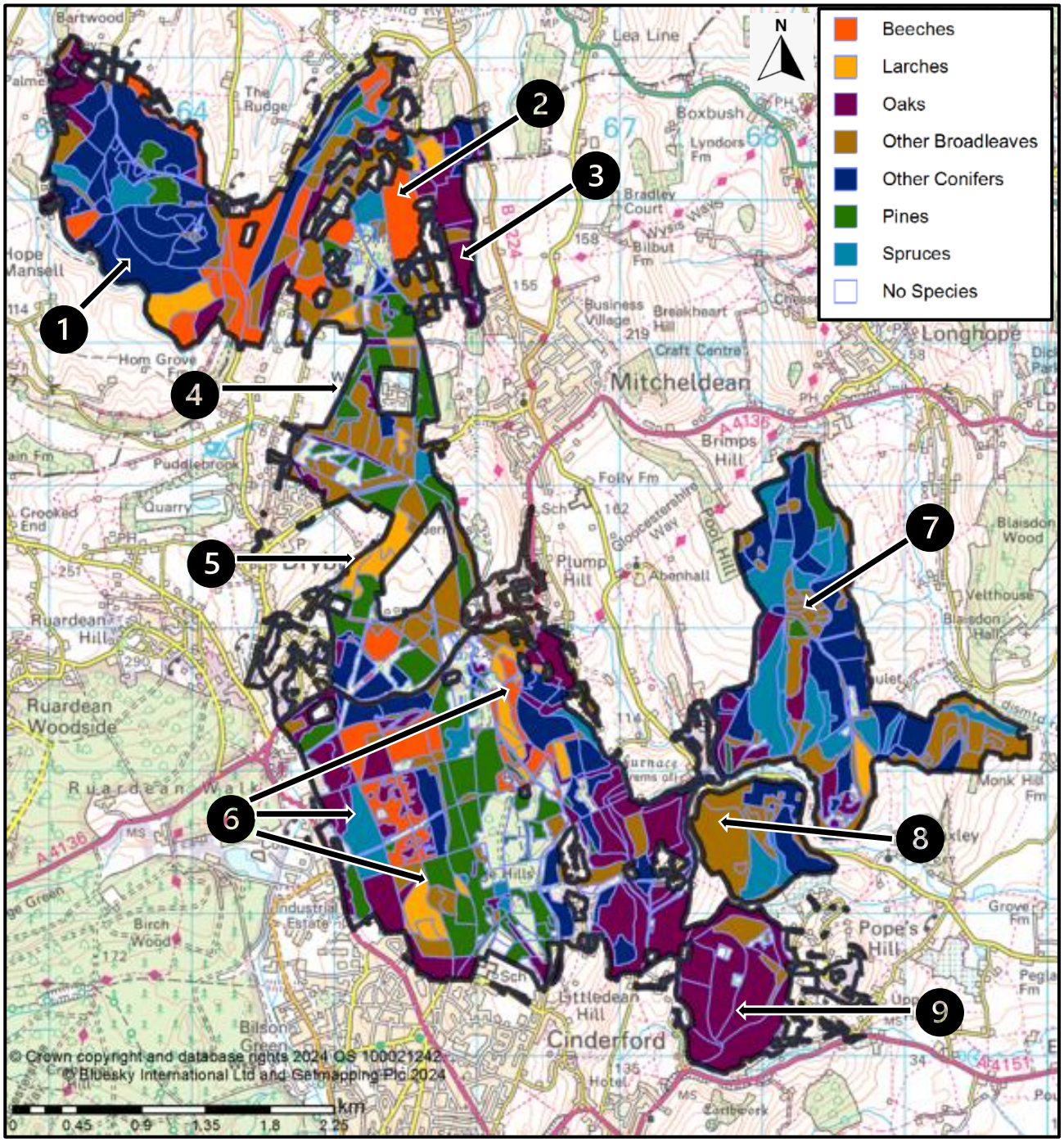


Figure 4
Chart to show proportions of different species in Edgehills and Wigpool

Figure 5 (on **page 9**) shows how the various species groups are distributed across the plan area.

Trees and woodlands - where are we now? (continued)

Figure 5
Map to show the most common species in each part of Edgehills and Wigpool with some of the more significant examples referred to in the numbered list below



1. Productive Douglas fir in Lea Bailey
2. Beech stand with bluebells and other native woodland ground flora in Wigpool
3. 1913 oaks in Lining Wood
4. Young Corsican pine around the waterworks in Mitcheldean Meend
5. Larch of various ages in Loquiers
6. A variety of ages and species across Haywood and Edgehills
7. Broadleaf coppice in Flaxley
8. Small-leaved lime on the top of the hill in Welshbury
9. Chestnuts Wood is dominated by oak planted in the early 1800s and the 1940s

Age structure

Figure 6 shows how many hectares of broadleaf and conifer tree planting (or natural regeneration after felling) took place in Edgehills and Wigpool in each decade. The woodlands contain conifers and broadleaves of all ages, including almost 100 hectares of pre-1900 broadleaves, alongside large areas of 1960s conifers many of which are at, or close to, economic maturity.

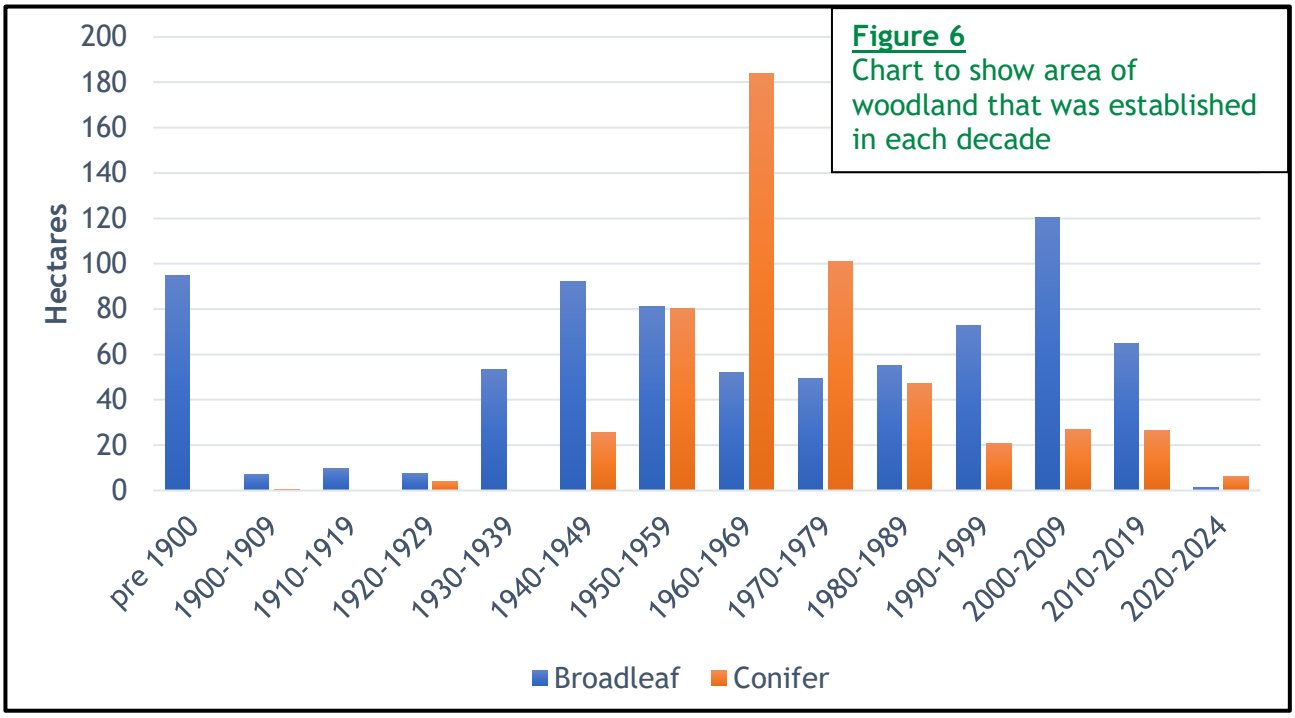


Figure 6
Chart to show area of woodland that was established in each decade

Research plots

There are three current research trials in Edgehills and Wigpool, which are managed by our colleagues in Forest Research:

- The growth, health and climatic tolerance of a noble fir stand in Lea Bailey has been monitored since 1983 (**Figure 7**);
- In Haywood, another long-term experiment is investigating differences between Nothofagus (southern beech) of different provenances (origins);
- A 1986 hybrid larch stand in Edgehills is part of a forest genetics trial.

Figure 7
Noble fir research report (2018)

Trees and woodlands – where are we now? (continued)

Stand composition

The Edgehills and Wigpool plan area contains both pure (single species) and mixed stands. Most of the pre-1990 crops were planted with the intention of thinning them towards a final clearfell (removal of all trees in one operation), meaning that some are very monocultural with no understorey (**Figure 8**). Changes in practice – ie use of low impact silvicultural systems (LISS) that allow us to retain continuous forest cover – have led to some stands becoming more structurally diverse, with multiple layers and species (**Figure 9**).

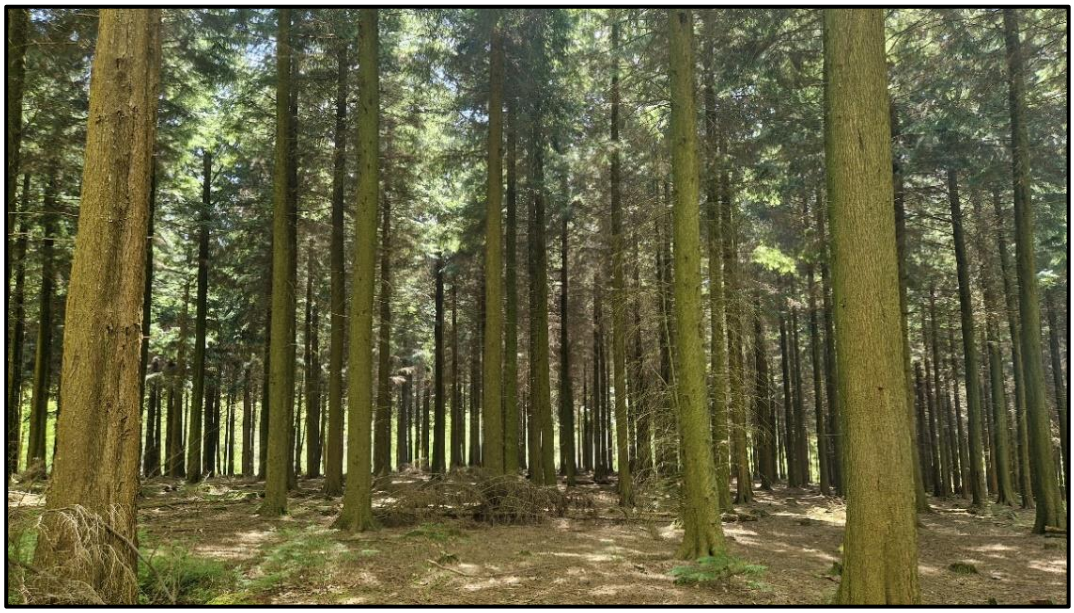


Figure 8 (above)
Pure western hemlock stand in Loquiers with no ground vegetation or lower storey trees
Figure 9 (below)
Douglas fir stand in Edgehills with western red cedar regenerating underneath

Threats to trees and woodlands in Edgehills and Wigpool

Various tree species are affected by different diseases, some of which may kill the tree, and others which affect its health and growth.

Red band (*Dothistroma*) needle blight is a disease affecting the health of Corsican pine stands across the Forest of Dean and elsewhere (**Figure 10**). Another disease – *Phytophthora ramorum* – which, when detected, requires infected larch and sweet chestnut stands to be felled within 12 months, has already led to premature felling of several larch crops in Edgehills and Wigpool. We anticipate that at least some of the remaining 55 hectares of larch and 39 hectares of sweet chestnut currently thriving in the plan area may succumb to the disease at some stage in the coming years. Many of the oak trees in the southeastern parts of the plan area are suffering with acute oak decline, which is a relatively recently discovered disease which can kill trees within a few years.

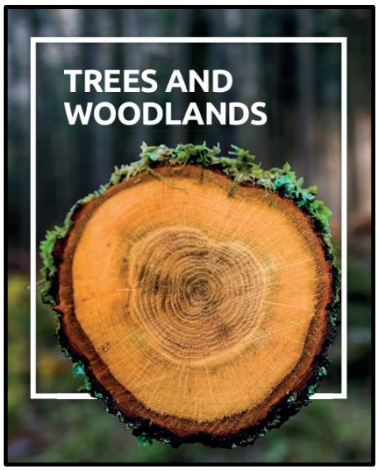
Figure 10 (above left)
Red band needle blight causes thinning of foliage in Corsican pine

Figure 11 (above right)
Grey squirrel damage in Mitcheldean Meend

Expected changes in climate may lead to an increase in the number of pests and diseases threatening UK forestry. Warmer, drier weather may also increase the risk of wildfires. According to our fire risk assessment, the northern parts of the forest plan area are currently at low to medium risk of fire, but Haywood and Edgehills are higher risk areas due to their proximity to the town, and the proportion of young woodland and heathland. Although controlled fire has been used as a habitat management tool for centuries, unplanned wildfire has the potential to harm the forest and its wildlife, and of course can be dangerous for visitors.

Deer (fallow, roe and muntjac) and wild boar cause a great deal of damage to regenerating and newly established trees – deer because they nibble the stems, and boar because, as they root around in the soil, they disturb acorns and other seeds before they can germinate. Grey squirrels, present in large numbers across the landscape, strip the bark from many broadleaf tree species, affecting the way the tree grows and sometimes killing it (**Figure 11**).

Trees and woodlands - what are we going to do?



Commitments from Our Shared Forest principles of land management that are relevant in Edgehills and Wigpool:

- Make site-by-site decisions to develop and care for our woodlands
- Increase the range and genetic diversity of our trees – aiming for the right tree in the right place for the right reason
- Reduce the impact of pests and diseases on our existing and new trees

The two most important elements of our management of trees and woodlands in Edgehills and Wigpool are:

- **making individual expert decisions about each stand**, dependent on its characteristics and its potential to deliver our objectives; and
- **being reactive** – ready and willing to change our management in response to events and / or stand development.

While writing this plan, members of the local Forestry England team visited numerous stands across the plan area to assess the appropriateness of current management proposals, and to make changes where necessary (**Figure 12**).

Three examples of outcomes of these discussions are described below:

- A Corsican pine stand in Mitcheldean Meend had previously been assigned for clearfell, but we noted prolific and diverse broadleaf regeneration under the widely spaced conifers (**Figure 13**). This presented an opportunity to change the prescribed management from clearfell to shelterwood, where the understorey develops under the protection of the overstorey. This is known as a low impact, or continuous cover, silvicultural system.

Figure 12 (above) - Making management decisions for the forest plan

Figure 13 (right) – Corsican pine with broadleaf understorey

Trees and woodlands – what are we going to do? (continued)

- A fairly dense Douglas fir stand in Lea Bailey had very little understorey. We don't want to clearfell it because it provides habitat for goshawk, raven and firecrest, so we will remove some of the mature trees to encourage natural regeneration underneath. The risk of weeds must be carefully assessed – the forester will plan thinning operations to allow enough light to the forest floor to facilitate the growth of new trees, without giving greater advantage to ground vegetation such as bramble which may prevent seed from reaching the soil and smother young trees.
- In some cases, clearfell (removal of all the trees and subsequent restocking) is appropriate – an area of Norway spruce and hybrid larch in Wigpool has reached maturity and felling it will provide temporary open habitat for ground-nesting birds, and allow us to change the stand composition – in this case, the site is probably more suited to a mixture of oak, wild service tree and Scots pine.

Ancient woodland

Most of the forest plan area is officially recorded as ancient semi-natural woodland or PAWS (plantation on ancient woodland sites) which, in most locations, would mean that we would gradually replace non-native species with native broadleaves. However, the Forest of Dean has been subject to centuries of intensive timber and mineral exploitation and grazing, meaning that many areas have not had continuous tree cover since 1600 (requirement to be designated ancient woodland). An agreement was made in 2008 with Natural England to describe the statutory Forest of Dean as 'ancient forest' as opposed to 'ancient woodland', meaning that species composition is determined on a site-by-site basis – surveys of the ground flora (**Figure 14**) are used to advise whether a site should be stocked with native broadleaves or would be better suited to productive conifers.

The exceptions to the rule in this plan area are Flaxley and Welshbury Woods, which fall outside the statutory boundary of the Dean, meaning that here, we will gradually replace the conifers with native broadleaves over the coming decades.

Figure 14 – Ground flora indicative of ancient woodland in Wigpool

Trees and woodlands – what are we going to do? (continued)

Managing the threats

A key goal for Forestry England is to increase the resilience of the forest. A monoculture, of single species and single age, is more vulnerable to pests, disease, climate change and fire, than a mixed species stand with multiple ages and sizes of trees, so a major aim of our management decisions is diversification – of species, structure and management type. We will increase structural diversity through thinning – removal of individual trees or groups – then encouraging natural regeneration in the gaps, or by underplanting with a variety of species.

Our general practices of encouraging a broadleaf understorey and woodland edges, together with managing rideside vegetation (**page 18, 20**) and creating watercourse buffers (**page 25**), which act as linear fire breaks, will help to reduce the risk of fire across the plan area. Most fires are started by people (accidentally or deliberately), so we have carefully analysed the potentially more fire-vulnerable woodland edging the town, and have concluded that the stands adjacent to the residential areas, schools and hospital are not high risk crops ie they are predominantly ageing broadleaves. Where there are conifer crops (which are generally more likely to burn than broadleaves) in these areas, they are well beyond the risky thicket stage (10-20 years old). That said, we will continue to increase proportions of broadleaves on woodland edges, and monitor occurrences of fire, and be prepared to change our plans if the risk appears to be increasing.

Young Corsican pine stands have been heavily thinned recently to increase air flow between the trees, hopefully reducing the impact of *Dothistroma* needle blight. We will observe how these crops respond before deciding whether to fell them early or retain them to economic maturity.

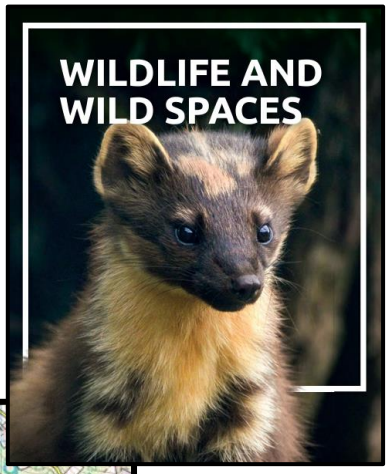
We will not pre-emptively fell larch stands just in case they get *Phytophthora ramorum*. Some mature larch is proposed for clearfell in this plan period (**Figure 15**), but other younger stands will be retained for as long as they are healthy. Where small proportions of larch are growing in a mixture with other species, we will target the larch for removal during thinning operations, as this will reduce the overall susceptibility of the forest to this notifiable disease.

Figure 15 – Mature larch stand in Loquiers that is ready to be felled

In order to reduce the impact of acute oak decline over the coming decades, we will gradually begin to remove groups of oak trees from areas where it is the only, or dominant, species, replacing them with other species in order to increase diversity and resilience.

Fencing and tree shelters will be used to protect new planting, and lines of sight will be maintained within crops for deer and boar monitoring and control. The forester also uses a deer repellent (harmless to animals, but deer don't like the taste) on newly planted trees. We hope that the recently reintroduced pine martens will become more established in the Forest of Dean and will begin to control grey squirrel numbers.

Wildlife and wild spaces - where are we now?



In Edgehills and Wigpool, as shown in **Figure 16**, there are three sites of special scientific interest (SSSI), which form part of the Wye Valley and Forest of Dean Special Area of Conservation (SAC), and two nature reserves managed by Gloucestershire Wildlife Trust (GWT). There are also eight county wildlife sites (CWS), which have been identified as habitats of importance for biodiversity at a county level.

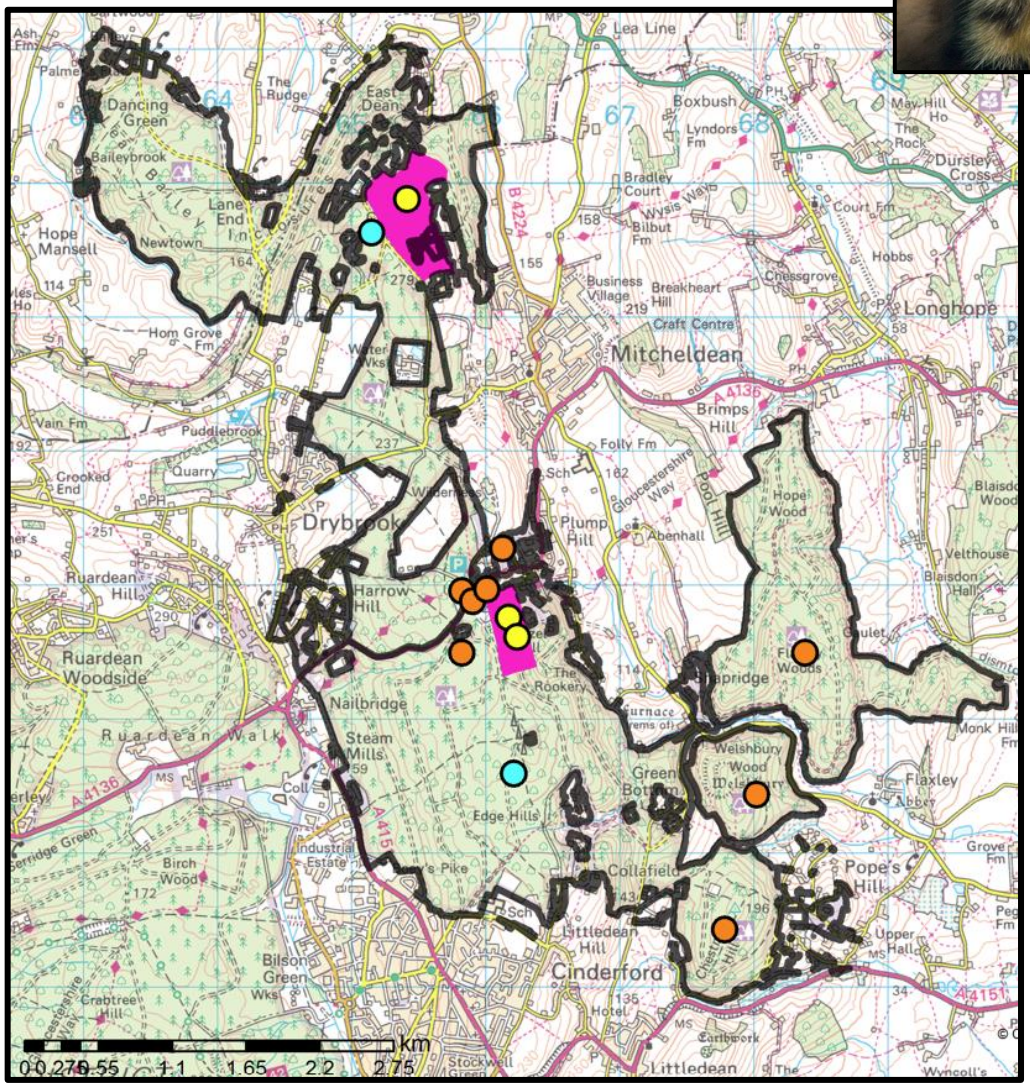


Figure 16
SSSIs, SAC, nature reserves and county wildlife sites in Edgehills and Wigpool

SSSIs
From north to south:

- Wigpool Ironstone Mine SSSI (part of the SAC)
- Edgehills Quarry SSSI
- Westbury Brook Iron Mine SSSI (part of the SAC)

Nature reserves
From north to south:

- Wigpool Nature Reserve
- Edgehills Bog Nature Reserve

County wildlife sites
From north to south:

- Plump Hill Quarry
- Merring Meend
- Plump Hill semi-natural grassland
- Westbury Brook Mine Reservoir
- Fairplay Iron Mine Reservoir
- Flaxley Wood
- Welshbury Wood
- Chestnuts Wood

Wye Valley and Forest of Dean SAC

Edgehills Quarry SSSI (Figure 17) is designated for its accessible exposure of Drybrook Sandstone, which contains sedimentary structures and trace fossil surfaces of types that suggest a previous shallow marine environment. Vegetation has been removed periodically from the quarry face in order to allow better views of the site, and there is a formal agreement to permit rock climbing on part of the site.

Figure 17 – Edgehills Quarry SSSI

The underground element of **Wigpool Ironstone Mine SSSI** consists of more than 3km of tunnels and workings to a depth of 130m, which are an important hibernation site for greater and lesser horseshoe bats. On the surface, the SSSI designated area includes broadleaf and coniferous woodland and an area of restored lowland heath. The mine is still in use, both for small-scale mineral extraction and for recreation in the form of potholing and caving. **Westbury Brook Ironstone Mine SSSI** is another hibernation site for horseshoe bats, and is also used by at least eight other species of bat. Most of the surrounding woodland is coniferous.

In fact, the whole of the forest plan area contains habitat that is functionally linked to the SSSIs because it provides important foraging habitat for bats.

Wigpool Nature Reserve (GWT) (Figure 18) is a remnant of the acidic bog and heathland which once covered Wigpool Common, and sits in open space adjacent to a conifer plantation. The ponds and surrounding area provide valuable habitat for reptiles, birds, dragonflies and marshland plants.

The other reserve managed by GWT in the forest plan area is **Edgehills Bog Nature Reserve** (Figure 19), a relic of the wet heathland that was once more common in the Dean. Its various wet and dry habitats support many plants, birds and insects.

Both GWT reserves are grazed by free-roaming sheep, Exmoor ponies and Highland cattle.

Figure 18 (above right)
Wigpool Nature Reserve
Figure 19 (right)
Edgehills Nature Reserve

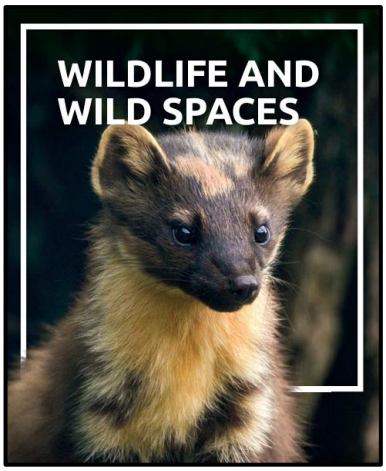
Wildlife and wild spaces - where are we now? (continued)

In addition to the designated areas, there are numerous other features of the forest that are important for wildlife, for example:

- Open space – this includes unplanted or regularly cut ride-sides (**Figure 20**) which develop into a variety of layers of shrubby vegetation and provide habitat for butterflies, glow-worms and other invertebrates, as well as areas of forest waste (unplanted areas on the forest edge – **page 27**) and land under power lines which is kept clear and provides linear open habitat;
- Trees of special interest include those which are particularly unusual or valuable in some way – either aesthetically or for wildlife – for example the very old lime trees in Flaxley (**Figure 21**), and other veterans with holes and crevices which provide roosting and nesting places for birds such as woodpeckers, and bats;
- Deadwood, standing and fallen, is also important in the forest ecosystem and supports many species (**Figure 22**);
- Streams and ponds (**page 23, 24**).

Figure 20 (top)
Open habitat on rideside
Figure 21 (left)
Very old lime tree in Flaxley
Figure 22 (above)
Fungi on standing deadwood

Wildlife and wild spaces – what are we going to do?



Commitments from Our Shared Forest principles of land management that are relevant in Edgehills and Wigpool:

- Identify habitats of conservation importance - ensure that habitats are bigger, better, more joined up
- Improve habitats through the development and care of woodlands
- Utilise open spaces for nature conservation by developing grazing systems
- Manage and monitor SSSIs

SSSIs / SAC

- Ten-year management plans were approved by Natural England in 2022 for all three SSSIs.
- The main objective for Edgehills Quarry is to monitor and manage the vegetation so that the site remains exposed for educational and recreational interest.
- Wigpool Iron Mine and Westbury Brook Iron Mine SSSIs are both incorporated into a wider 'Forest of Dean Bat SSSI' management plan, where the priorities for management are to limit disturbance to the bats, retain vegetation close to, but not obstructing, the entrances, and to ensure at least 50% canopy cover in the surrounding woodland providing habitat connectivity between the entrances to each mine.
- For the Wye Valley and Forest of Dean SAC, a Habitats Regulations Assessment (HRA) has been carried out by our ecologist to ensure that the works proposed in this forest plan are appropriate and beneficial for the bats and their habitats. The HRA is appended to this plan, so its content is not duplicated here.

GWT nature reserves

- Heathland is a valuable habitat within the forest, but its restoration (and keeping it open when it would naturally revert to woodland over time) is challenging and requires a long-term commitment. Forestry England do not have the resource or the expertise to manage the heathland areas, so the partnership with GWT (who have specialist and experienced staff, and their own livestock) is very important.
- The main objective is to maintain open space by controlling encroaching gorse, bracken and birch, which is achieved partially by grazing animals, supplemented by GWT staff and volunteer work parties during the winter months. Human intervention should become less necessary as grazing continues year on year.
- Reserve management is very reactive, and often needs to change due to factors such as the weather or when the site becomes temporarily under- or over-grazed.
- Information panels are provided to tell people about GWT's work on the site and how to enjoy the site and its wildlife without causing disturbance.

County wildlife sites (CWS)

- Three of the CWS are ponds, which are discussed on page 25.
- Flaxley, Welshbury and Chestnuts Wood CWS are classed as ancient woodland, and as they are outside the statutory Forest of Dean (see page 14), conifers will gradually be removed and replaced with native broadleaves.
- Plump Hill Quarry and Plump Hill semi-natural grassland CWS will be retained at around 50% open space.

Wildlife and wild spaces – what are we going to do? (continued)

The Forest of Dean is a working forest – much of the woodland in Edgehills and Wigpool provides a sustainable source of timber. Some areas, such as the nature reserves, have been set aside for biodiversity and will be mostly unproductive, but across most of the land, it is the active management of the forest for timber that benefits species and habitats (**Figure 23**).

Allowing areas of mixed woodland to grow to maturity provides nesting habitat for firecrests.

Heavy thinning provides timber and creates gappy woodland which is a preferred habitat for tree pipits.

Conifers are important – they provide essential habitat for goshawks and ravens.

Clearfelling provides temporarily open habitat for nightjars and other ground-nesting birds, and foraging opportunities for bats.

Thinning allows light to reach the ground, encouraging the growth of ground vegetation which provides shelter for dormice.

Coppicing provides small diameter wood and creates a mosaic of habitats for invertebrates, birds and small mammals.

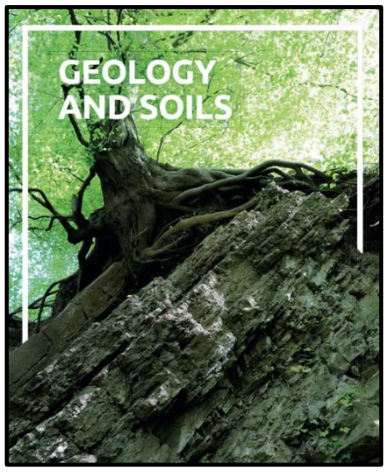
Figure 23 – Active forest management creating wildlife and wild spaces in Edgehills and Wigpool

With this in mind, the best thing we can, and will, do for our wildlife and wild spaces is to manage the forest to provide diversity: native broadleaf woodland is essential, but so are conifers; coppicing is important, but coppice coupes often don't contain veteran trees or deadwood; changing our management to continuous cover systems is appropriate in many places, but we also need the temporary open space provided by clearfelling.

We will continue to manage our ridesides to provide a variety of open habitats. As usual, diversity is key – wood white butterflies require open rides, glow-worms prefer a little more cover, and dormice require crossover points where the canopy meets at some points above the rides. Some of the forest waste areas will be flailed, or cleared by volunteers, annually in order to maintain them as open space. Dead wood (standing and fallen) will be left where it is safe to do so in order to increase this habitat, and trees of special interest are marked on our GIS maps, so that they are noted and protected during forest operations.

Management of streams and ponds is described on **page 25**.

Geology and soils - where are we now?



Forest soils, which are closely related to the underlying geology, have a significant influence over which trees and vegetation grow and thrive in each area of woodland. For example, Lea Bailey and Flaxley soils are relatively free-draining brown earths, which support fast growing productive conifers. The fertile soils unfortunately also provide an excellent medium for brambles and weeds, which compete with naturally regenerating trees.

Areas of Drybrook sandstone under the soils in the centre of the plan area naturally give rise to conditions suiting lowland heath, which is why we have previously cleared areas of forest to allow them to revert to heathland, now managed by Gloucestershire Wildlife Trust. Wet areas often form on the areas of seasonally wet gley soils. **Figure 24** shows the dominant soil type in each part of the plan area.

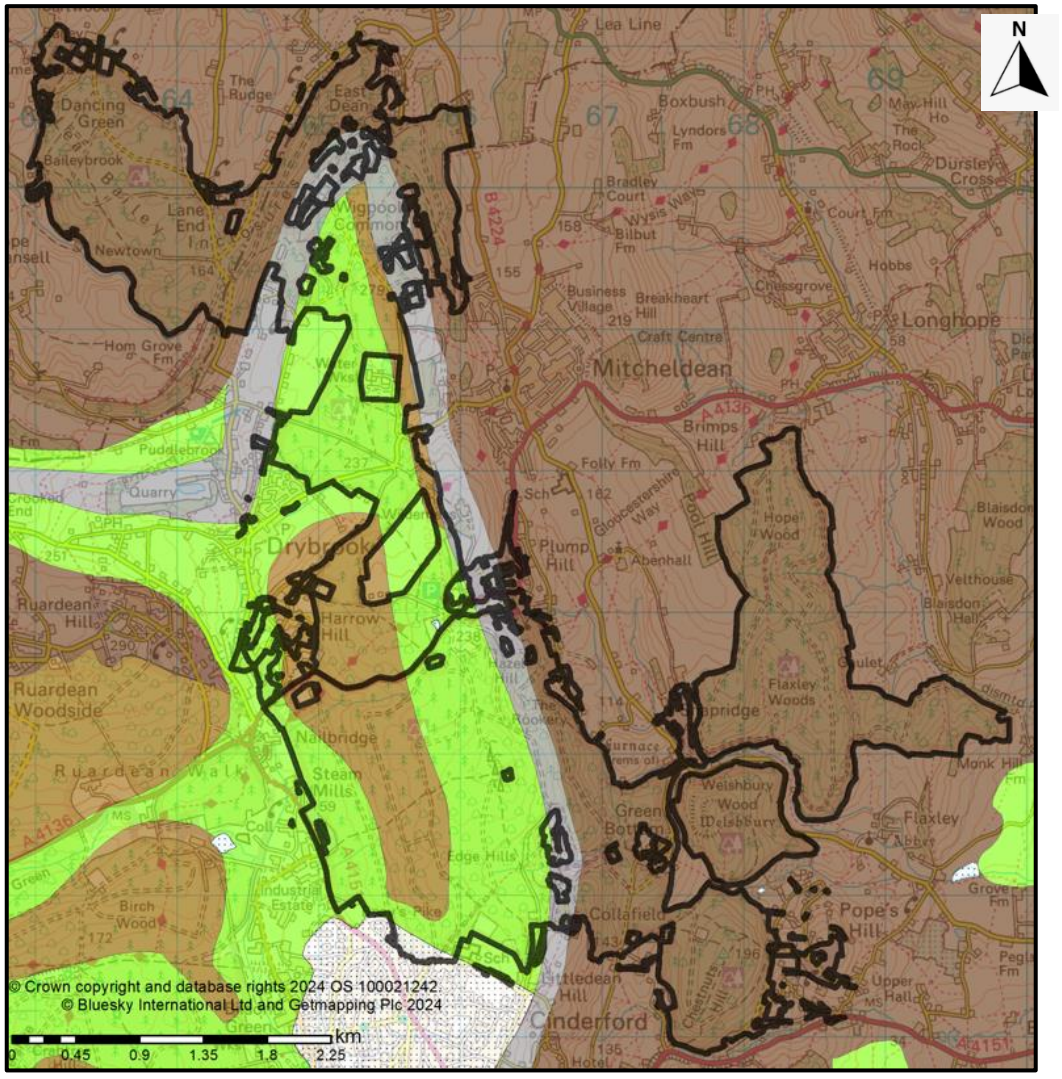
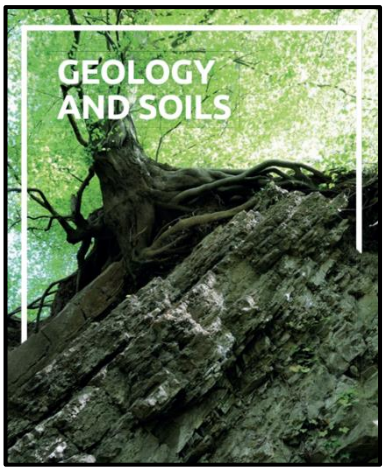


Figure 24 - Main soil types in Edgehills and Wigpool

brown = brown earths grey = brown ranker green = surface water gley

Note that there are numerous small-scale local differences across the block, which are not visible in this large-scale soil mapping

Geology and soils – what are we going to do?



Commitments from Our Shared Forest principles of land management that are relevant in Edgehills and Wigpool:

- Identify optimum sites for lowland heath, mire and other wetlands and link these to open spaces
- Move away from felling blocks of trees to reduce the impact on soil qualities
- Improve extraction and access routes for forest operations to reduce soil compaction by machines

With regard to working with forest soils, there are two main considerations:

- choosing the correct species and habitats for each soil type; and
- protection of the forest soils.

Matching species and habitats to soils

Each time we restock an area after clearfelling, or carry out underplanting, our foresters dig small, temporary pits in order to identify the local soil conditions in more detail than is shown on our soil maps. In addition, we take note of the ground flora underneath the trees, and use that to influence our species choices, for example dog's mercury and wild garlic are ancient woodland indicators and suggest that a site will be suited to native broadleaves. Ultimately, trees will thrive if they are growing on the right soils.

In line with OSF (page 5) – allowing ourselves to be guided by the natural potential of the land – we are carrying out long-term restoration of heathland in partnership with GWT (page 19) and wetland (page 26) within Edgehills and Wigpool.

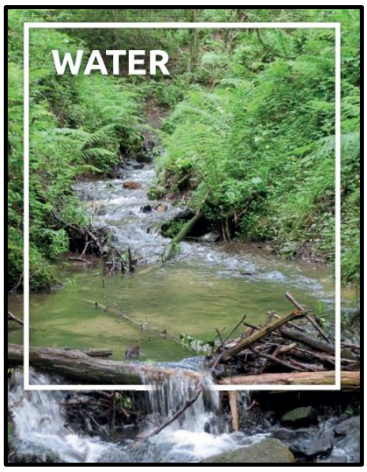
Protection

Forest soils are incredibly important – not just as the medium for growing trees, but as ecosystems in their own right, and they need to be treated with care and respect. Using lower impact silvicultural systems (LISS), and modifying working techniques and timings so that they are appropriate for the site and weather conditions, will mean that our forest operations will have less impact on the soil.

The first time we thin a crop, we cut down a line of trees every 15 metres – this is known as a rack (Figure 25), and is the line down which the machinery will move every time we carry out forest operations. Although the soil in the racks becomes compacted, it means that the majority of the forest soils are untouched and undamaged.

Figure 25 – Trees marked with 'R' are removed to create racks

Water - where are we now?



A number of watercourses flow both east and west from the high points of Haywood and Edgehills, and there are also streams flowing south through Wigpool, west from Lea Bailey and throughout Flaxley (**Figure 26**). Over centuries of management of the land for mining, quarrying and forestry, watercourses have been diverted and manipulated, and drainage channels constructed or blocked, and it is often not possible to identify the original course. Some streams are bordered by appropriate native riparian species, but others are overshadowed by non-native conifers.

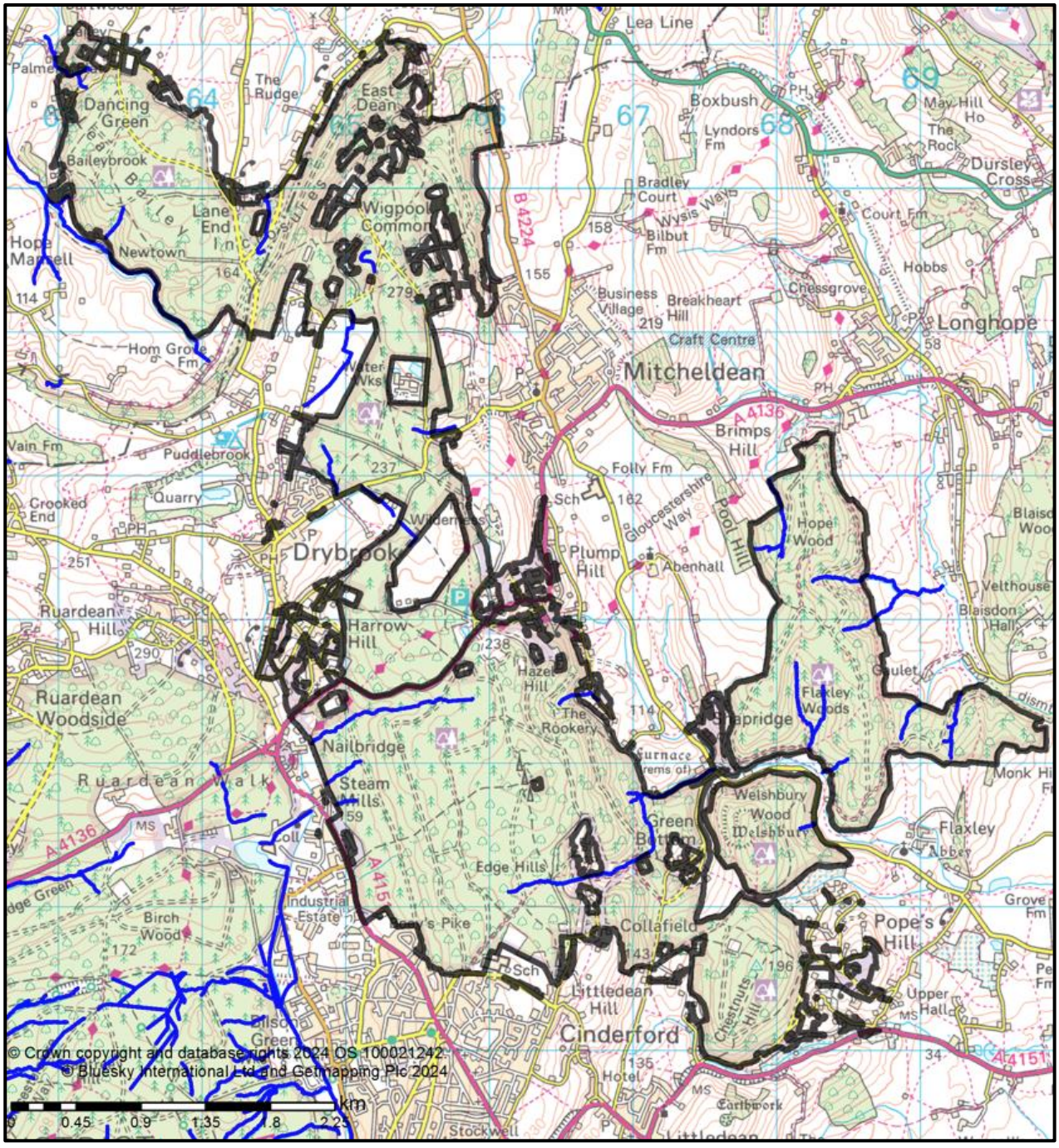


Figure 26 – Watercourses in Edgehills and Wigpool and surrounding area – marked in blue

Water – where are we now? (continued)

Although many streams, such as those that flow west through Haywood towards Cinderford, are mostly dry in the summer months, they can become quite full after heavy rain and may contribute to flood risk in the town. To counteract this, through our Forest Waters Project, we have begun to 'slow the flow', by adding woody debris into the top sections of the streams (**Figure 27**), which also improves habitat diversity in the channels and the floodplain.

Across the plan area, there are also several ponds (**Figure 28**), many of which have previously been cleared of encroaching vegetation (often by volunteers) to improve their value as wildlife habitats.

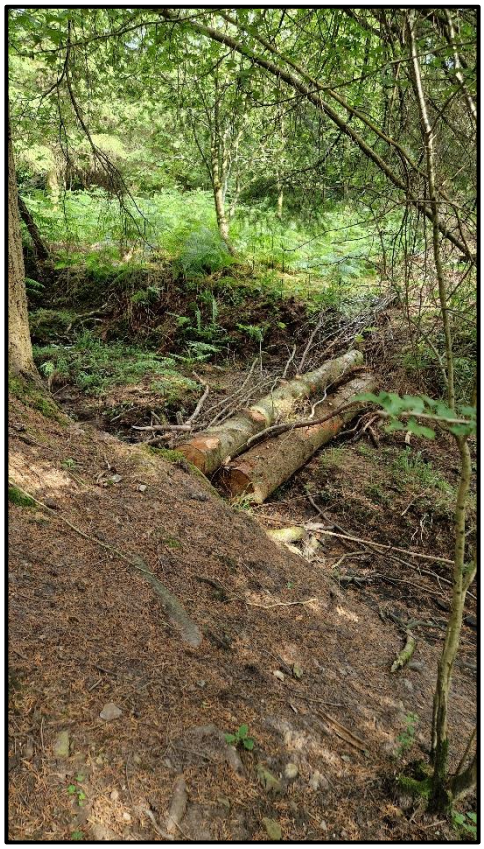
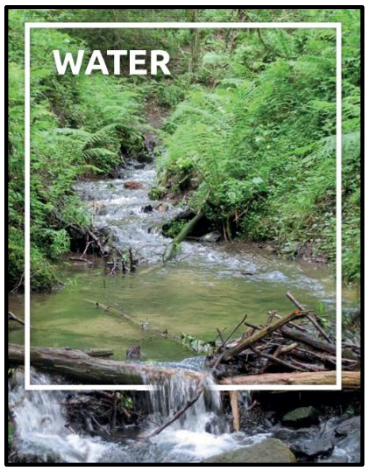


Figure 27 (above) – Woody debris in Gore Brook may help to reduce flood risk when the stream fills with water

Figure 28 – Two of the ponds in the forest plan area
Above – Pond at Fairplay, Edgehills
Below – Small pond in Loquiers

Water - what are we going to do?



Commitments from Our Shared Forest principles of land management that are relevant in Edgehills and Wigpool:

- Identify and develop riparian zones to enhance connectivity and functionality of watercourses
- Naturalise water channels by creating natural structures to build habitat diversity and slow the flow of water
- Restore active mires and bogs to create habitat and reduce volumes of water flowing down and out of the forest in storm conditions
- Create and maintain ponds to support ecology

Watercourse buffering

One of the long-term aspirations of our Forest Waters Project is to establish valuable riparian habitat alongside watercourses. We are referring to these areas, which will be created over the next 20 years or so, as 'buffers'. They will consist of linear zones, 20 to 40 metres in width, where non-native trees will be felled and replaced with native riparian species such as alder, aspen and willow. These trees will be planted at low density, or will regenerate naturally, allowing sunlight and warmth to reach the wet habitats (**Figure 29**).

These watercourses are also the places where we may add woody debris (**page 24**).

Figure 29 – **(left)** Before buffering - the stream is overshadowed by dense young conifers; **(above)** After buffering – the buffer zone will gradually regenerate with native vegetation

Figure 30 (far left) – overgrown pond in Lea Bailey

Ponds

Most small ponds gradually become overgrown and need to be cleared periodically of encroaching trees and shrubs. **Figure 30** shows the pond in Lea Bailey, which was actually one of a series of ponds created as part of historic mineral workings, and which is in need of some attention – its clearance will be added to the volunteer work programme.

Water – what are we going to do? (continued)

Wetland restoration proposals

Figure 31 shows two areas which may be suitable for wetland restoration in this forest plan area. Note that these are not project plans – they are proposals that are subject to availability of resources, and will be fully researched and consulted upon.

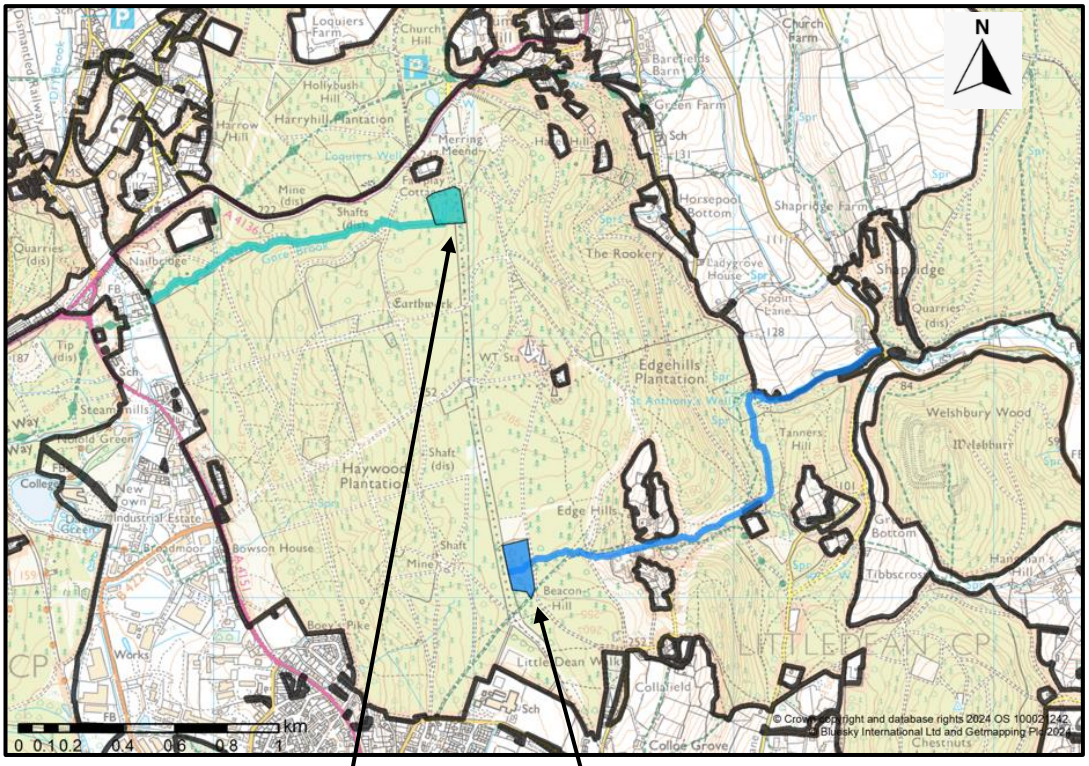


Figure 31 Map to show the two proposed wetland restoration areas

Fairplay / Gore Brook

Objective: create wetland around the Fairplay ponds (formerly reservoirs serving the Fairplay iron mine); slow the flow of water downstream to the west.

Situation: three ponds in an area of open space with some broadleaf natural regeneration; leading into Gore Brook.

Proposal: fell some of the trees; encourage water to spread from the ponds; block ditches with woody debris; create buffer on Gore Brook.

Edgehills to Green Bottom

Objective: recreate wet woodland on the top of Edgehills; slow the flow of water downstream to the east.

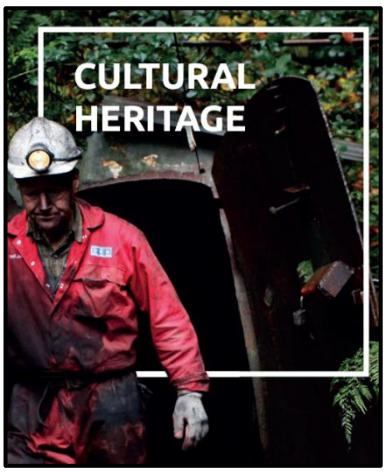
Situation: although the top of Edgehills is mostly dry, this was probably once a wet area – where ditches and watercourses started and flowed east and west.

Proposal: carry out a very heavy thin of 0.5 to 1 hectare of the blue shaded area, and block ditches with woody debris; where it flows through woodland, create buffer on each side of the stream flowing east towards Green Bottom.

Timescale: subject to funding, operational work for both projects could be carried out in 2028 when the area is next due to be thinned.

Monitoring: groundwater monitoring should begin as soon as possible; after operations, we will look for changes to plant communities – an increase in rushes, sphagnum and other water-loving vegetation will indicate that wetland habitat is developing.

Cultural heritage - where are we now?



Our cultural heritage is about how people have interacted with the land and resources of the Forest of Dean over time – from the Romans smelting iron, its use as a hunting forest in the middle ages and the more recent industrial activity of the 18 and 1900s.

As well as coal, stone and iron ore, the Forest has provided a timber resource for centuries and, at times in its past, substantial areas would have been largely devoid of trees which were removed to provide space and resources for the industries of the day. Within the forest are 'inclosures' – the boundaries of these date mainly from the years following the 1808 Dean Forest (Timber) Act, when large areas of the Dean were systematically enclosed, fenced and replanted.

Figure 32 – Forest waste on the edge of Harrow Hill

Outside these areas, generally on the fringes of the forest, is 'forest waste' (**Figure 32**) – land that was, at the time, deemed unsuitable for tree planting. It is here that many of the Forest villages have become established. Areas of forest waste were traditionally grazed by sheep, but since the 2001 outbreak of foot and mouth disease, the number of grazing animals has declined to a point where they are ineffective at retaining forest waste as open habitat, and there is a risk that important open areas are lost to successional growth of birch, bramble and other vegetation.

Cultural heritage - what are we going to do?

Commitments from Our Shared Forest principles of land management that are relevant in Edgehills and Wigpool:

- Maintain as far as possible the historic woodland structure of inclosure boundaries
- Strengthen the feel of being within a forest of trees (eg use trees to frame views, encourage more ancient and veteran trees)
- Support and promote small-scale mining and quarrying

Beech Walk is an avenue of ancient trees in Loquiers (**Figure 33**). These mature specimens are important cultural heritage features, and provide excellent wildlife habitat. Younger beech trees, showing potential to develop veteran features in the future, will be retained during thinning operations and some may 'veteranised' through removal of branches to initiate the decay process.

Clearance of vegetation from forest waste in order to provide open space benefits wildlife (**page 20**) and also contributes towards the maintenance of the traditional forest structure.

The Office of the Deputy Gaveller, part of the Forestry England offices in Coleford, will continue to administer and support freeminers working in Edgehills and Wigpool, and Forestry England will continue to work closely with the Verderers – elected officials with a duty to protect the "vert and the venison" – the flora and fauna – of the forest.

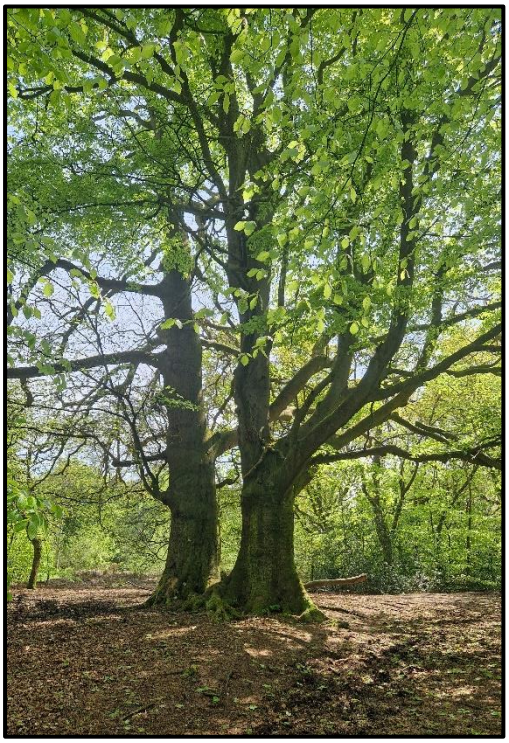
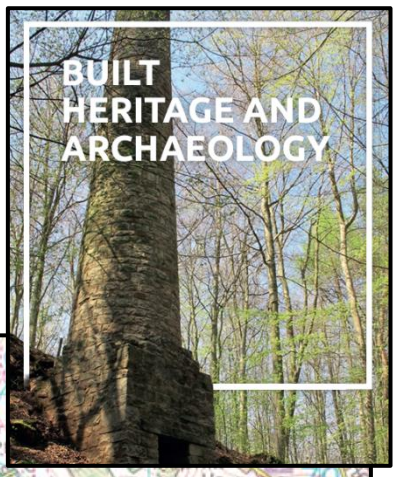


Figure 33 – Beech Walk in Loquiers – beech trees of various ages

Built heritage and archaeology - where are we now?



Edgehills and Wigpool has two listed buildings, one scheduled monument and hundreds of undesignated heritage features (**Figure 34**).

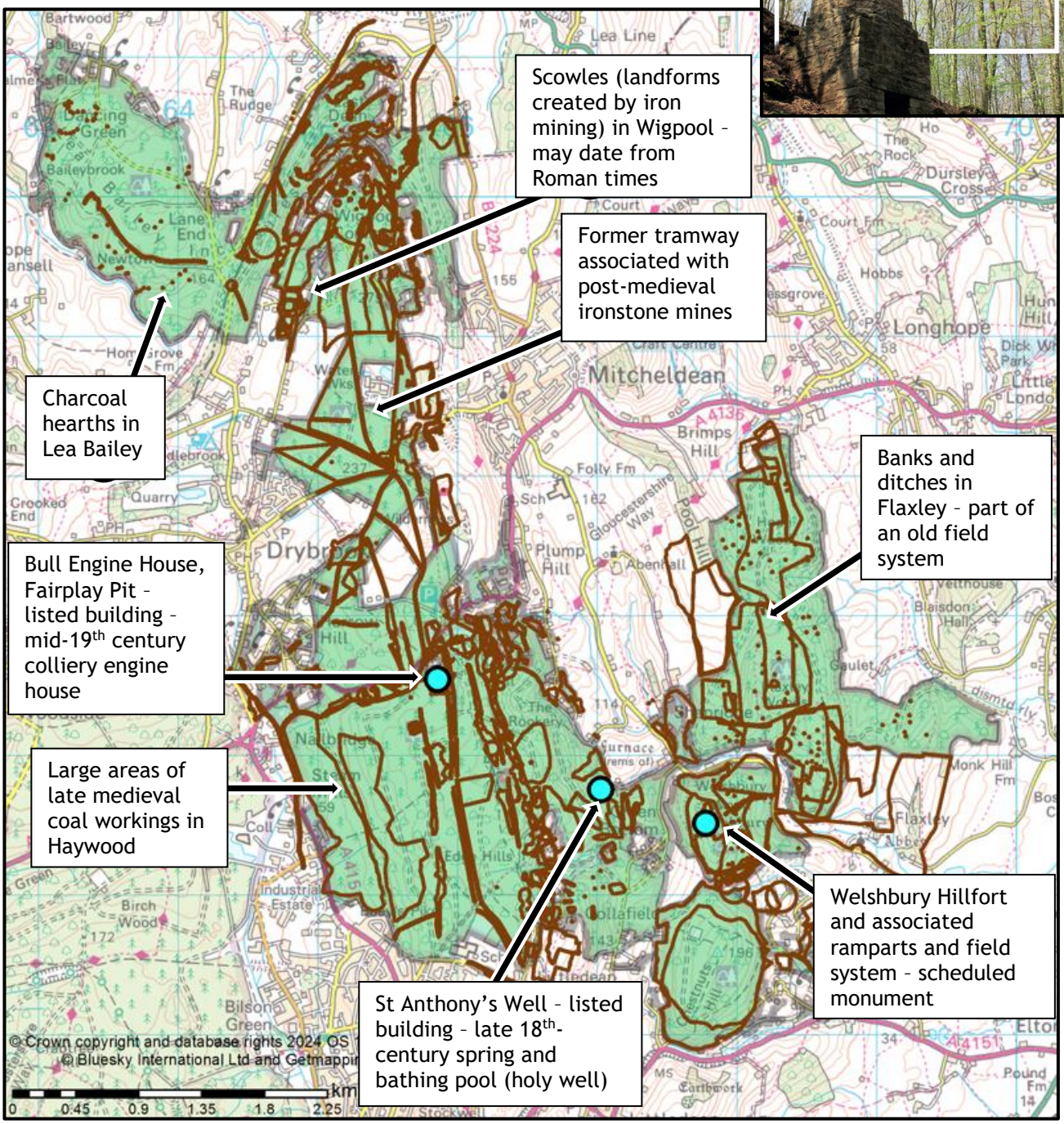
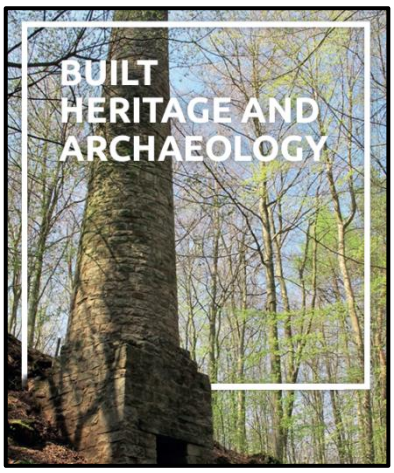


Figure 34 - Map to show archaeological and heritage features that are recorded on our GIS

Undesignated features are marked in brown; the one scheduled monument and two listed buildings are marked with blue spots; text boxes highlight some examples of built heritage and archaeology

Built heritage and archaeology – what are we going to do?



Commitments from Our Shared Forest principles of land management that are relevant in Edgehills and Wigpool:

- Categorise our built heritage and archaeological features
- Continue investigation and research into our built heritage and archaeological features

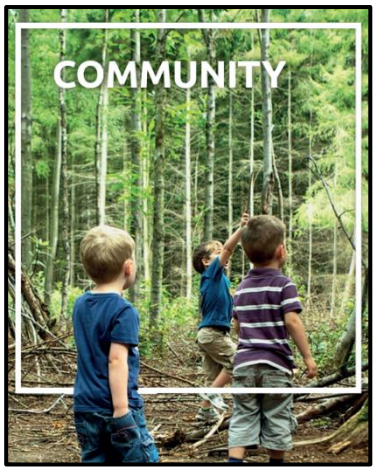
The categorisation of heritage features on Forestry England land into those of national, regional and local importance, is a long-term project outside the remit of the forest plan. However, the project will have implications for how we carry out our work in the plan area.

- We have taken advice from Historic England as to how to manage Welshbury Hillfort (**Figure 35**), and are in the process of agreeing a scheduled monument management plan with them.
- Our Estates team will continue to carry out annual site inspections of Bull Engine House and St Anthony's Well (**Figure 36**).
- When planning forest operations which may have an impact on the scheduled monument or listed buildings, we will consult Historic England and / or the County Archaeologist.
- Non-designated sites will be marked on our GIS system, maintained in a stable condition and protected from potentially damaging operations, for example through careful planning of timber extraction routes, and by felling trees away from the feature.
- If at any stage, a heritage feature is deemed to require its own specific management plan or objectives, we will take advice from the relevant authorities and put appropriate measures in place.

Figure 36 (above) – Listed building: St Anthony's Well

Figure 35 (left) – Management planning meeting at Welshbury Hillfort scheduled monument

Community and Recreation - where are we now?



The Dean is unique in the way that the villages and communities are physically so closely connected to the forest, meaning that an enormous number of people are easily able to access and enjoy the woods.

In the Edgehills and Wigpool plan area, there are several public rights of way, including the Wysis Way and Gloucestershire Way national trails. In addition, thanks to the CRoW Act (2000), the public has right of access on foot to all of the tracks and trails (apart from areas that are temporarily closed for safety reasons during forest operations). Horse riding and cycling are permitted on stoned forest roads, and there is a 7km circular permissive equestrian route in Flaxley Wood.

We work closely with Gloucestershire Wildlife Trust (page 17, 19) and other local organisations and community groups, and we have dozens of dedicated volunteers (**Figure 37**) who carry out tasks such as coppicing and pond clearance, dormouse box monitoring and bird surveys.

Figure 37
Some of our brilliant volunteers – the Dean Green Team

Community and Recreation - what are we going to do?

Commitments from Our Shared Forest principles of land management that are relevant in Edgehills and Wigpool:

- Maintain and enhance community access points
- Encourage community groups to work with us on meaningful, sustainable projects
- Provide structured opportunities for volunteering

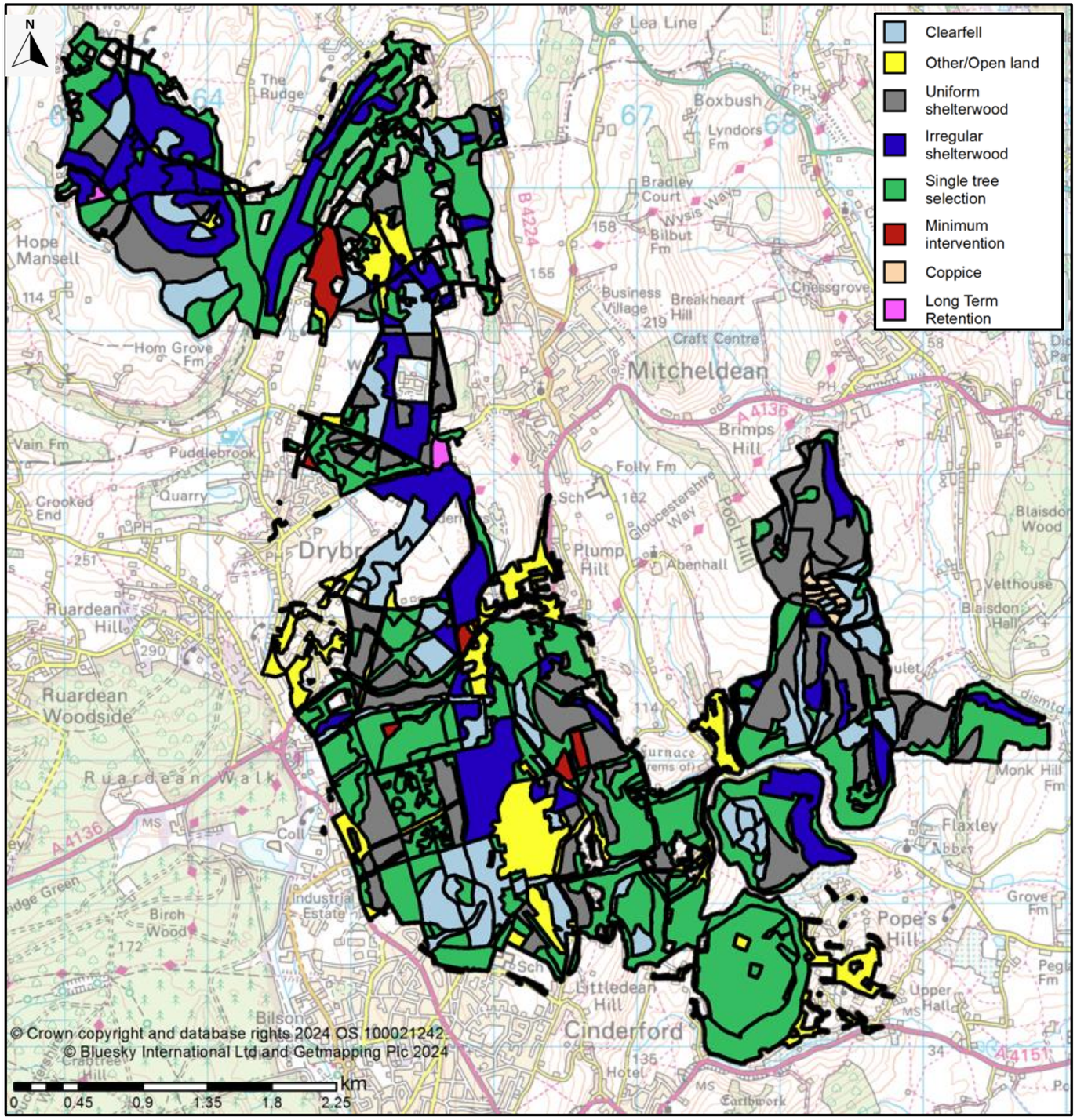
A project for the first part of the new plan period will be to identify community access points in Edgehills and Wigpool – the places where people enter the forest on foot, either from their homes or from small roadside parking areas. We will then engage with the local community to understand their use of these areas, and will consider, as and when resource allows, how we could improve the visual and physical qualities of the most heavily used access points.

Our community rangers will continue to work with existing local groups and volunteers, and will look out for further opportunities to engage with projects that connect people with the Forest.

Edgehills and Wigpool Action Plan The previous pages of this plan have described our general plans for Edgehills and Wigpool. This page provides a more detailed list of measurable actions and how we will monitor success.	**Links to Forestry England vision (from page 4)**			
Actions* - what we are going to do	**Wildlife**	**People**	**Climate**	**Monitoring - how we will measure success**
1. Trees and Woodlands • Clearfell 43.32 hectares of conifers (felling maps – **pages 29-31**); restock with site appropriate species as agreed with ecologist • Clearfell 10.56 hectares of broadleaves in Flaxley and Welshbury, most of which will regenerate as coppice (clearfells in riparian areas are covered in '**Water**' below; coppicing on Welshbury Hillfort is covered in '**Built heritage and archaeology**' below) • Assess all stands for readiness for thinning (broadleaves approximately every ten years and conifers every five) and thin if appropriate; ensure that thinning prescriptions fulfil stand objectives; be prepared to change our approach in response to stand development • Continue to monitor and respond to threats including pests, diseases and wildfire			✓	• Have clearfells been carried out as planned? (some may be delayed if there are Phytophthora fellings elsewhere on the beat, or due to insufficient budget to restock as needed to increase / maintain forest health and resilience • Has broadleaf felling been carried out as planned? Is coppice regenerating successfully? • Has thinning been tailored to evolving stand objectives and condition? • Are threats being monitored and appropriate interventions carried out?
2. Wildlife and wild spaces • Continue to manage the SSSIs / SAC according to the objectives in the 2022 SSSI management plans • Continue to work with GWT to manage the heathland restoration projects in Wigpool and on Edgehills • Take opportunities to increase open space on ridesides and streamsides eg when thinning or restocking; where resources allow, actively clear vegetation from areas marked as 'other / open' • Leave standing and fallen deadwood where it is safe and appropriate to do so • Ensure that the impact of operations on bats and other protected species is considered through our site planning process	✓			• SSSIs monitored through SSSI management plans • Are heathland areas being actively managed by GWT with Forestry England input where needed? • Has proportion of open space (ridesides, forest waste, streamsides) remained stable or increased? • Are areas marked as 'other / open' being managed as such? • Has deadwood been left in situ? • Are bats and other species considered and protected through the site planning process?
3. Geology and soils • Dig soil pits before each restock to inform species choice • Protect forest soils through appropriate method and scale of operations – taking into account access restrictions such as wet ground • Always consider LISS as opposed to clearfell when planning forest operations	✓		✓	• Is soil type considered when making species choices? • Has forest soil been protected during operations? • Are changes from clearfell to LISS considered when planning operations?
4. Water • Clearfell non-riparian suitable species from up to 22.13 hectares of mixed (conifer / broadleaf) woodland for watercourse buffer creation; see felling maps (**pages 29-31**), management prescription map (**page 28**) – note that this will take more than one plan period • Clear ponds as and when resources allow eg the overgrown pond in Lea Bailey (**page 21**) • Begin monitoring in preparation for the proposed Edgehills and Fairplay wetland restoration projects – begin work on the wetland restoration projects as and when resource allows	✓	✓	✓	• Have watercourses been buffered as per the proposals? • Have ponds been cleared / improved? • Has monitoring started in preparation for the Edgehills and Fairplay wetland restorations? • Has planning and / or work started on the Edgehills and Fairplay wetland restorations?
5. Cultural heritage • Identify on Forester Web, and protect during operations: veteran trees and potential future veterans (and consider veteranising beech in Loquiers • Retain forest waste as at least partially open space (aim for at least 50% open)		✓		• Have veteran and mature trees been identified and protected? • Do resources allow forest waste to be managed at around 50% open?
6. Built heritage and archaeology • Identify on Forester Web, and protect during operations, all known heritage features • Carry out the first (and hopefully the second) phase of coppicing on Welshbury Hillfort as outlined in the 2024 scheduled monument plan		✓		• Have heritage features been identified and protected? • Has coppicing been carried out on Welshbury Hillfort as per the 2024 SM plan?
7. Community and recreation • Continue to work with our valued volunteers, and develop further community projects where feasible and appropriate • Carry out tree and trail inspections on all public rights of way, roadsides and residential boundaries for the safety of users	✓	✓		• Are community projects and volunteers (previously existing and new) supported and facilitated? • Are tree inspections carried out and potentially dangerous trees dealt with in an agreed and appropriate timeframe?

*** NOTE** – The focus of this action plan is forest management. Activities that are not the responsibility of the forestry beat team – working with the heritage advisory group, inspecting listed buildings, community access points project – are not included in this action plan.

Our management prescriptions for Edgehills and Wigpool (Figure 38)



When we write a forest plan, each stand is allocated a management type – this describes how we think that stand should be managed, and is agreed by the forester, ecologist and planner following a site visit. As mentioned earlier in the plan, it is really important for us to be flexible – ready and willing to adapt our management approach in response to stand development and environmental changes. **Figure 38** shows the management types agreed in summer 2024 for Edgehills and Wigpool.

Some crops will be **clearfelled**, either in this plan period or future decades (see felling plans – **pages 34-37**). This provides timber, and has the added benefit of allowing us to restock an area with a different species or stand type – for example replacing conifers with broadleaves on an ancient woodland site (**page 14**). The riparian areas where we are going to create watercourse buffers (**page 25**) are also marked as clearfells, even though many are already partially open, and in some cases, if the existing vegetation is already appropriate, they may not need to be completely clearfelled.

The majority of the crops that are not going to be clearfelled will be managed under low impact silvicultural systems (LISS) such as **uniform** or **irregular shelterwood**, or **single tree selection**.

In a **shelterwood system,** the overstorey provides seed and shelter for the next generation of trees to develop, and is gradually removed through thinning to allow light to the forest floor. Future species composition is manipulated through choices made during thinning operations and by enrichment planting where needed. In a **selection system**, trees of all ages and sizes are removed at each thinning, creating a structurally diverse forest for the future.

Other management types include:

- **Coppicing** for example in Flaxley Wood – coppicing is a traditional woodland management method, which involves periodically cutting trees down to the stump, then allowing new shoots to grow. Coppicing provides small diameter wood (traditionally used for charcoal, tool handles and hurdles), and creates a mosaic of wildlife habitats including temporary open space and different aged woodland habitats. Similarly, the lime stands on top of Welshbury Hillfort will be clearfelled in small-scale coupes and allowed to coppice back as per the scheduled monument plan.

- **Minimum intervention** – these areas include the scowles in Wigpool, wet woodland in Mitcheldean Meend and Loquiers, and some Forest Research trial areas. They will probably remain more or less untouched for this plan period, but may be managed differently in future decades.

- **Other / open land** includes areas under power lines and on some ridesides and streamsides, as well as the heathland restorations and forest waste, much of which generally has less than 50% canopy cover, and offers a dynamic, changing mosaic of young trees, scrub and open space.

- **Long term retention** – some stands are important for aesthetic reasons or because they are an unusual or experimental species – these may be retained long-term ie beyond their economic maturity.

Edgehills and Wigpool north (Lea Bailey, Wigpool, Mitcheldean Meend and Loquiers) – felling plan 2024-2034 (Figure 39a)

Note that the riparian areas where we are going to create watercourse buffers (page 25) are marked as clearfells, even though many are already partially open, and in some cases, if the existing vegetation is already appropriate, they may not need to be completely clearfelled.

Coupe 40003 (2.38ha) **Fell 2027-31**
Clearfell the 2002 CP from the coupe; retain existing broadleaves and 2022 conifers

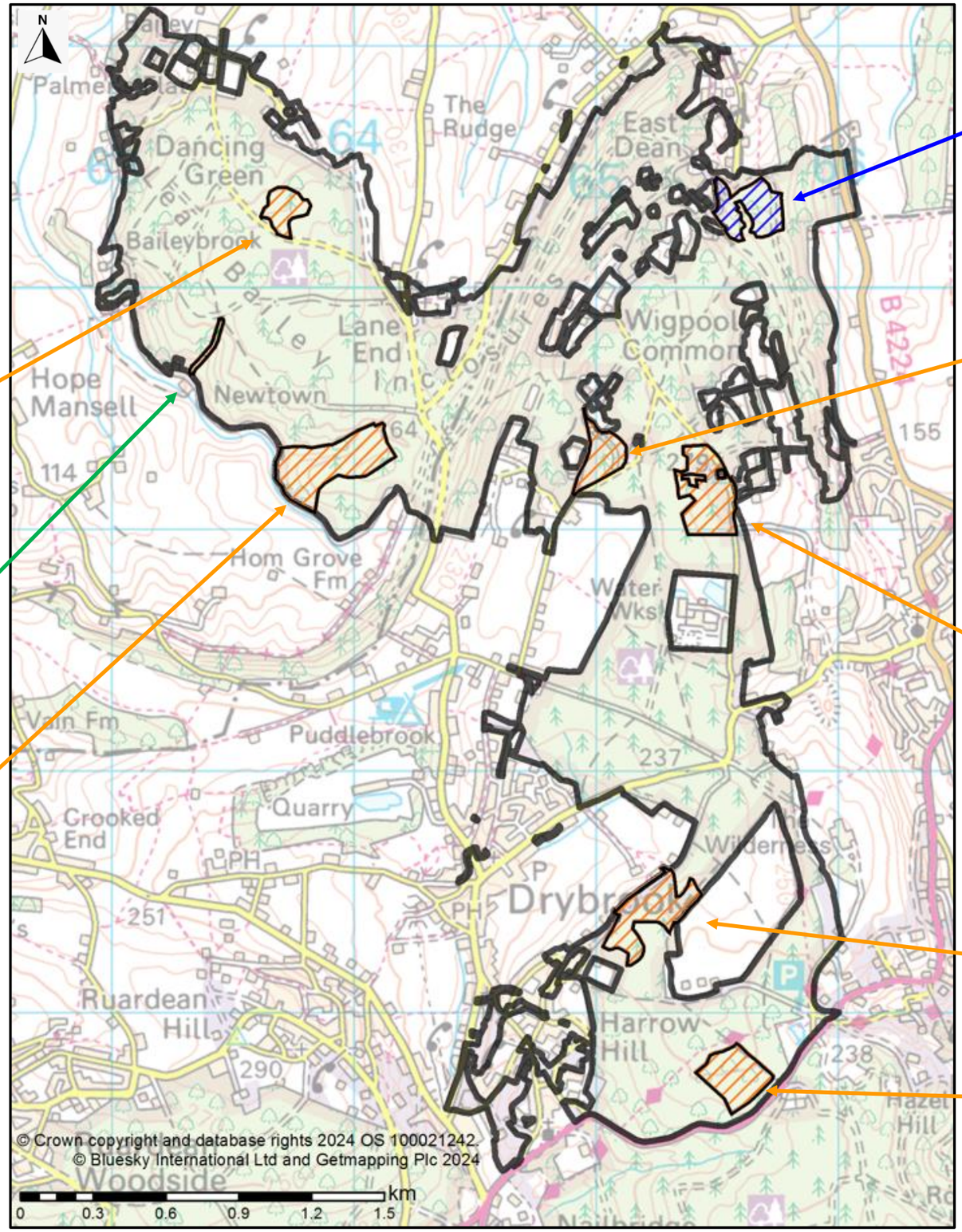
Allow 20% of the felled area to regenerate naturally; restock 80% with mixed conifers

Coupe 40019 (0.53ha) **Fell 2022-26**
Clearfell DF from 10-15m riparian buffer when thinning adjacent coupes

Restock with 50% native riparian species / 50% open space

Coupe 40002 (8.74ha) **Fell 2027-31**
Thin the JL in 2025; halo around broadleaves; clearfell in 2031/32; retain broadleaves

Future species should be 80% broadleaves – ideally mixture including WST, GAR, OK, HAZ – with up to 20% SP



Felling year

2022-26 2027-31 2032-36

Coupe 40020 (4.87ha) **Fell 2032-36**
Clearfell the 1977 NS and 1984 HL

Native woodland ground flora suggests that restock should be predominantly broadleaf – 80% OK with WST and some other minor broadleaves, plus up to 20% SP (and maybe some dawn redwood because it is a deciduous conifer which would replace the larch with autumn colour and allow light to the forest floor)

Coupe 40023 (3.29ha) **Fell 2027-31**
Clearfell up to 50% (1.65ha) of the coupe to create riparian buffer / wet woodland – exact area to be agreed with ecologist and Forest Waters Project; retain any existing riparian species

Restock with 50% native riparian species / 50% open space

Coupe 40021 (6.62ha) **Fell 2027-31**
Clearfell the CP and EL; retain the broadleaves and as much structural diversity as possible

Replace felled CP and EL with conifers eg SP, NS, ORS to create future proportion of 75% conifer; 25% broadleaf

Coupe 40049 (6.33ha) **Fell 2027-31**
Clearfell JL, HL, CP; retain broadleaves

Native woodland ground flora suggests that restock should be predominantly broadleaf – 80% OK with other minor broadleaves, plus up to 20% SP; note – bracken risk if we don't actively replant

Coupe 40058 (4.85ha) **Fell 2027-31**
Clearfell CP, SP, SC; retain the OK and BI; spray the SC stools to prevent regrowth given susceptibility to *Phytophthora ramorum*

Restock with 80% conifer – DF, RC, RSQ – plus 20% broadleaves in groups to enrich the soil where there is a thick needle layer

Edgehills and Wigpool central (Haywood and Edgehills) - felling plan 2024-2034 (Figure 39b)

Note that the riparian areas where we are going to create watercourse buffers (page 25) are marked as clearfells, even though many are already partially open, and in some cases, if the existing vegetation is already appropriate, they may not need to be completely clearfelled.

Fairplay / Gore Brook wetland restoration (see page 22)

Coupe 41018 (1.15ha)
Coupe 41019 (1.14ha)
Coupe 41020 (1.11ha)
Coupe 41021 (1.15ha)
Clearfell 10-15m riparian buffer in each of the above coupes, when thinning adjacent crops **2027-31**

Restock with 50% native riparian species / 50% open space

Coupe 41023 (1.01ha) **Fell 2027-31**
Clearfell 10-15m riparian buffer when thinning adjacent coupes

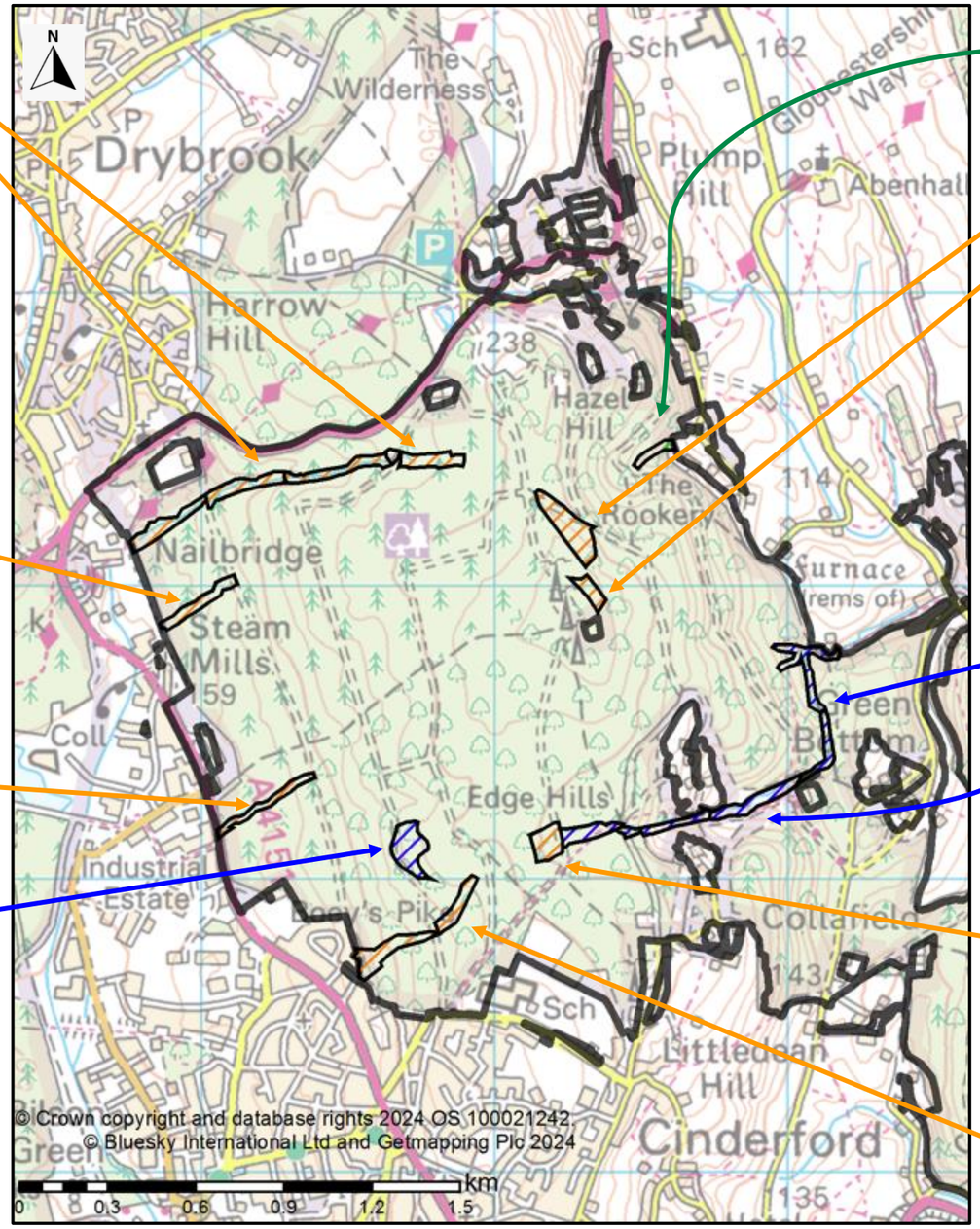
Restock with 50% native riparian species / 50% open space

Coupe 41024 (0.90ha) **Fell 2027-31**
Clearfell 10-15m riparian buffer when thinning adjacent coupes

Restock with 50% native riparian species / 50% open space

Coupe 41004 (4.87ha) **Fell 2032-36**
Clearfell 1961 SC at end of plan period; spray the SC stools to prevent regrowth given susceptibility to *Phytophthora ramorum*

Restock with 80% MB including IAR and WST plus 20% SP



Coupe 41027 (0.45ha) **Fell 2022-26**
Clearfell DF and OK from 10-15m riparian buffer when thinning adjacent coupes

Restock with 50% native riparian species / 50% open space

Coupe 41005 (2.60ha) **Fell 2027-31**
Clearfell JL and EL; retain broadleaves

Restock with mixed conifers including SP and dawn redwood (deciduous conifer to replace the larch with autumn colour and allow light to the forest floor)

Edgehills to Green Bottom wetland restoration (see page 22)
Coupe 41016 (1.36ha)
Coupe 41015 (0.70ha)
Coupe 41014 (1.19ha)
Coupe 41013 (0.78ha)
Coupe 41012 (0.88ha)
Clearfell 10-15m riparian buffer in each of the above coupes, when thinning adjacent crops **2032-36**

Restock with 50% native riparian species / 50% open space

Coupe 41011 (1.04ha) **Fell 2027-31**
Carry out very heavy thin of 0.5 to 1ha - block ditches with woody debris

Allow some riparian species to regenerate along watercourse

Coupe 41025 (2.26ha) **Fell 2027-31**

Clearfell 10-15m riparian buffer when thinning adjacent crops

Restock with 50% native riparian species / 50% open space

Felling year

2022-26 2027-31 2032-36

Edgehills and Wigpool east (Flaxley, Welshbury and Chestnuts) - felling plan 2024-2034 (Figure 39c)

Coupe 41089 (1.58ha) **Fell 2027-31**
Clearfell 10-15m riparian buffer when thinning adjacent coupes

Restock with 50% native riparian species / 50% open space

Coupe 41070 (4.28ha) **Fell 2027-31**
Very wet area that is difficult to work – includes watercourse

Restock with 50% native riparian species / 50% open space

Coupe 41103 (1.31ha) **Fell 2027-31**
(narrow strip on edge of woodland)
Clearfell 10-15m riparian buffer when thinning adjacent coupes

Restock with 50% native riparian species / 50% open space

Coupe 41116 (1.32ha) **Fell 2027-31**
Clearfell ROK at the same time as creating watercourse buffer (coupe 41103) and allow to coppice back

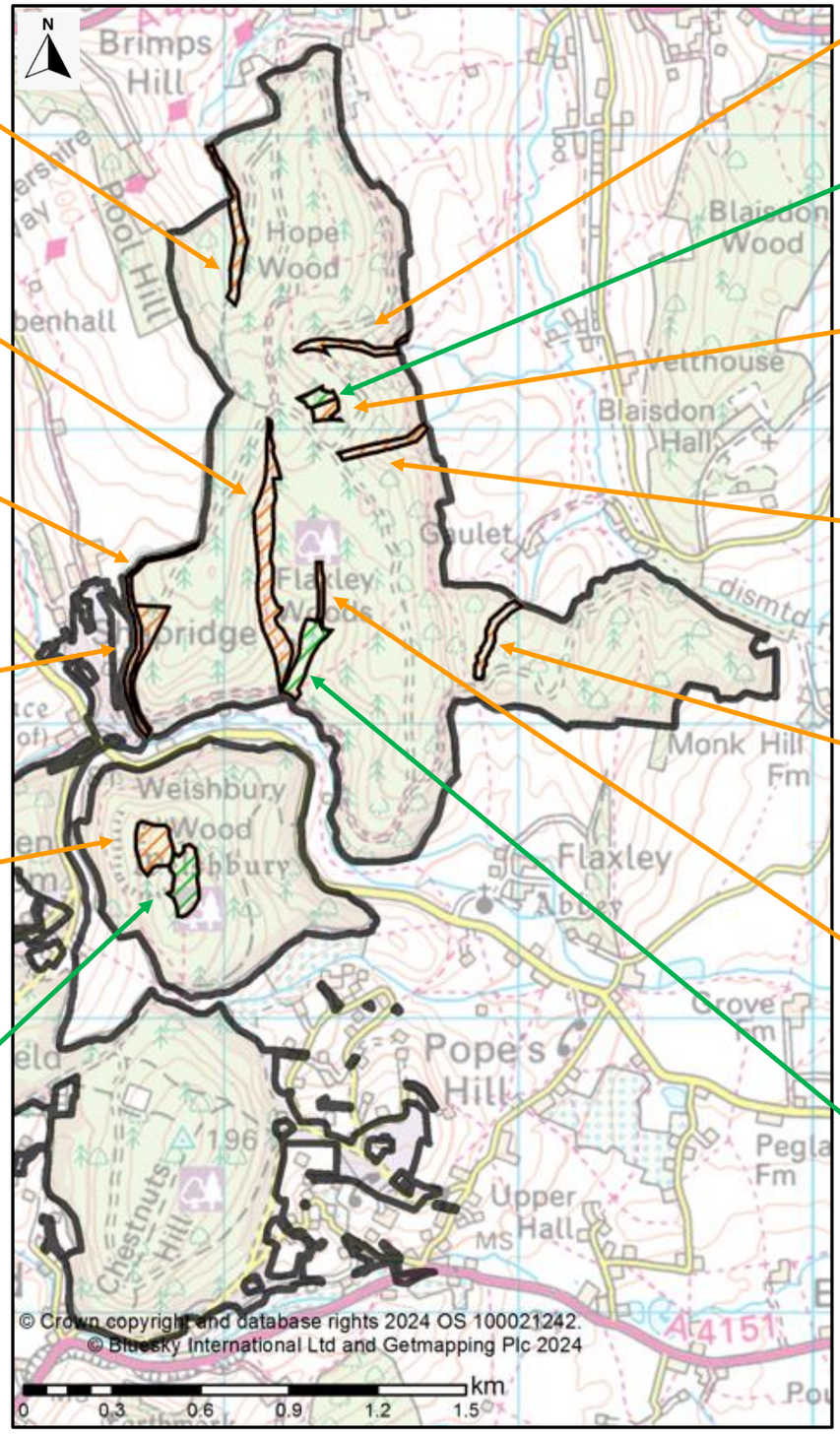
Coupe 41107 (1.72ha) **Fell 2027-31**
Proposed coppice coupe 2 on hillfort – refer back to HE advice from working coupe 41106 in 2024/25

Longer term SM advice: after felling, allow to coppice back, retain for 30 years, single, allow to grow for 30 years then coppice again

Coupe 41106 (1.72ha) **Fell 2022-26**
Proposed coppice coupe 1 on hillfort – working with HE to agree how to fell with minimal impact on SM

Longer term SM advice: after felling, allow to coppice back, retain for 30 years, single, allow to grow for 30 years then coppice again

Note that the riparian areas where we are going to create watercourse buffers (page 25) are marked as clearfells, even though many are already partially open, and in some cases, if the existing vegetation is already appropriate, they may not need to be completely clearfelled



Coupe 41073 (0.97ha) **Fell 2027-31**
Clearfell 10-15m riparian buffer when thinning adjacent coupes

Restock with 50% native riparian species / 50% open space

Coupe 41128 (0.47ha) **Fell 2022-26**
1978 broadleaves to be brought into coppice rotation and then cut every 30 years

Coupe 41129 (0.46ha) **Fell 2027-31**
1978 broadleaves to be brought into coppice rotation and then cut every 30 years

Coupe 41072 (0.86ha) **Fell 2027-31**
Watercourse already partially buffered – open up further when thinning adjacent coupes; note important LLI

Restock with 50% native riparian species / 50% open space

Coupe 41042 (0.92ha) **Fell 2027-31**
Clearfell 10-15m riparian buffer when thinning adjacent coupes

Restock with 50% native riparian species / 50% open space

Coupe 41053 (0.37ha) **Fell 2027-31**
Clearfell 10-15m riparian buffer when thinning adjacent coupes

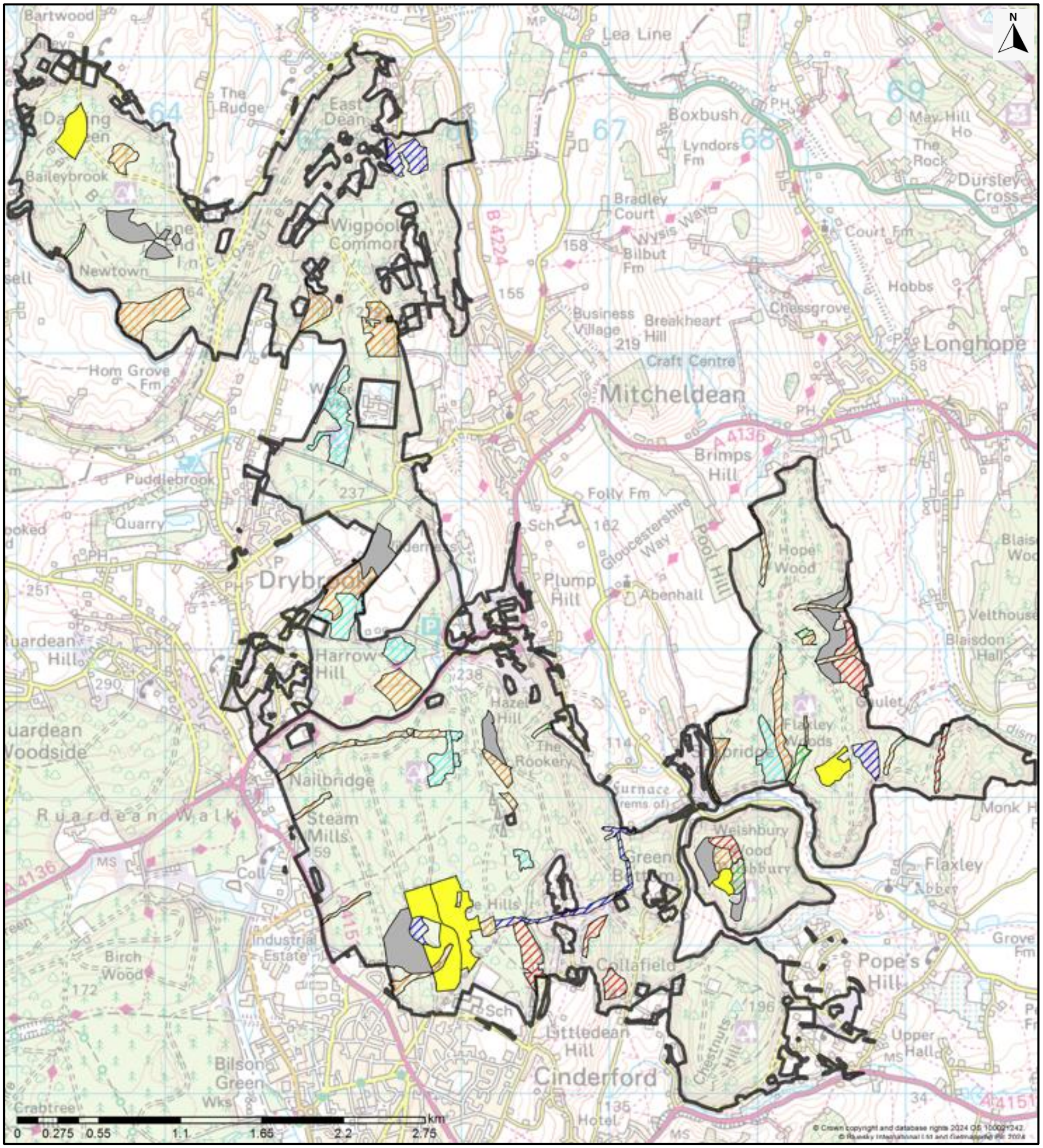
Restock with 50% native riparian species / 50% open space

Coupe 41022 (1.51ha) **Fell 2022-26**
Watercourse buffer – clearfell PO and allow to regenerate as coppice

Felling year

2022-26 2027-31 2032-36

Edgehills and Wigpool – longer term felling plan (Figure 40)



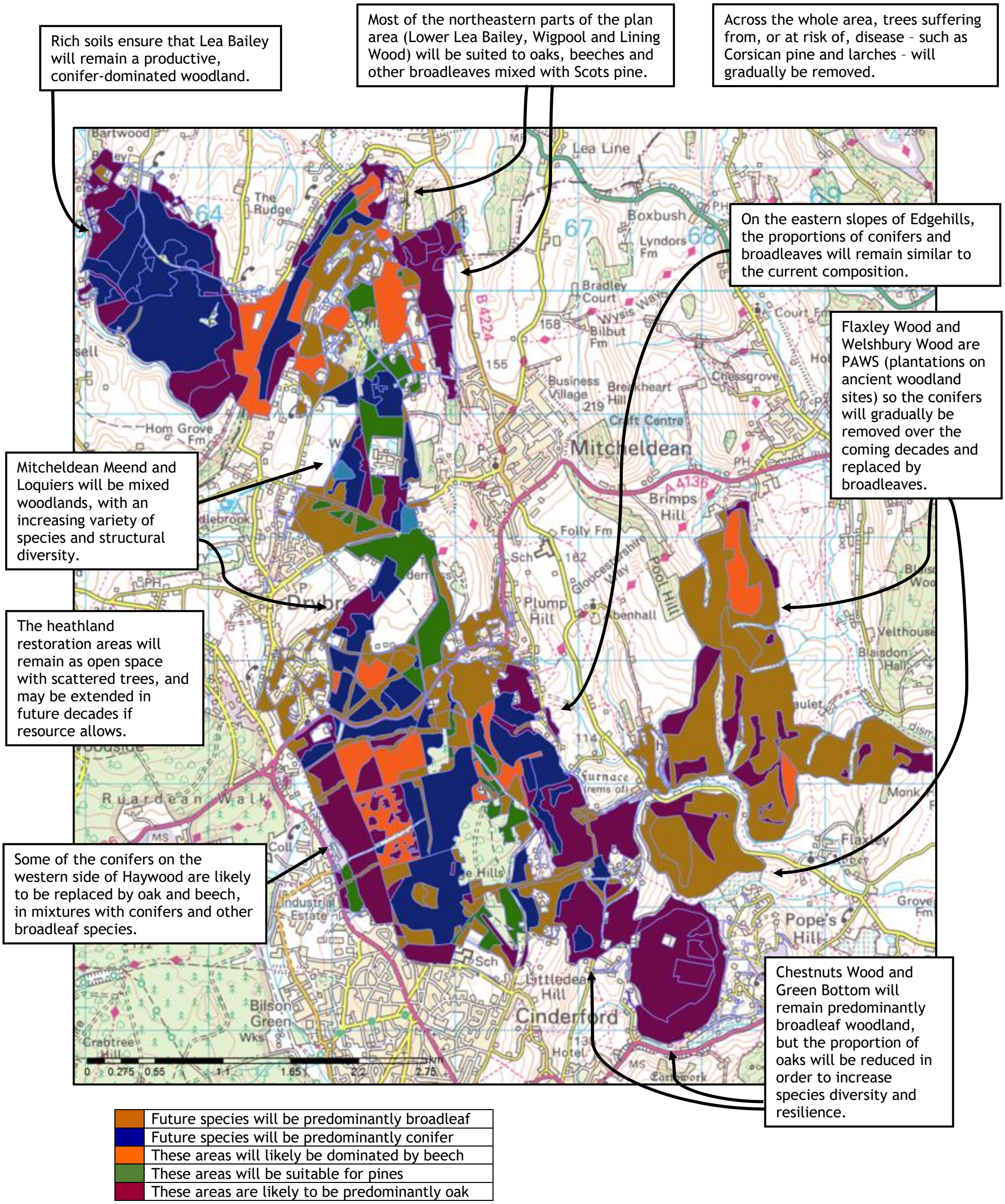
Felling year

2027-2031	2032-2036	2037-2041	2042-2046	2047-2051	Fell after 2052

Future habitats and species

Figure 41 gives a broad overview of the long-term future species / crop types in Edgehills and Wigpool. Note that the map does not represent a specific date because crops will all reach maturity and be replaced at different times, and where a crop is being managed under LISS, any changes to species composition are very gradual, and will take place over many decades. Note also that the map does not illustrate the full diversity of species that will be present in the future – areas shown as predominantly oak, beech or pine for example will be more structurally diverse and species rich than the map suggests.

Figure 41 – Map to show anticipated future species in Edgehills and Wigpool



Appendix 1
Explanation of some of the terms used in the forest plan:

- **Natural capital value** - from the soils to the trees, and all the species which live in them, the whole forest ecosystem is a resource known as **'natural capital'.** Forestry England uses a natural capital approach to help understand the value to society of the various benefits that come from the nation's forests.

- Each area of the forest is managed by a **beat team**, which includes a forester, ecologist, community ranger, works supervisor (who oversees the operational contracts) and tariffing team (who measure and mark which trees will be felled during forest operations).

- We measure the area of our land in **hectares** – one hectare (ha) is equal to one hundred metres by one hundred metres, or the equivalent of about two and a half acres.

- **Broadleaves (BL)** are trees with broad, flat leaves eg oak, hazel, birch. Most are deciduous (lose their leaves in winter). **Conifers** are trees with cones and needles eg Scots pine, Douglas fir. Most are evergreen, but not all eg larch is a deciduous conifer.

- A **stand** is a group, or area, of trees that are more or less homogeneous (the same) in terms of species composition, density and age. Stands of trees may be planted deliberately (**plantation**) or arise from **natural regeneration**, where trees grow from seeds which arrived on the site through natural means, often from a previous or adjacent crop.

- The forest is divided into **coupes**, consisting of one or more stands which will be managed in the same way. Management prescriptions (**forest operations**) include:

    - **Clearfelling** – where all the trees in an area are cut down (**felled**) – often because they have reached **economic maturity** (their highest possible economic value), but sometimes due to disease; clearfelling provides temporary open space and the opportunity to **restock** with a different species which may be more appropriate for the site and its management objectives.

        - When we plant new trees, we may protect them from deer using fencing, or by planting individual trees in **tree shelters**, which are removed once the trees have become established.

    - **LISS** – **low impact silvicultural systems** – provide an alternative to clearfell, involving careful thinning of the existing crop and encouragement of natural regeneration / underplanting, to maintain continuous forest cover and conditions, and to develop the next generations of trees. These include **shelterwood** and **selection** systems.

        - In a **shelterwood system,** the overstorey provides seed and shelter for the next generation of trees to develop, and is gradually removed through thinning to allow light to the forest floor. In a **selection system**, trees of all ages and sizes are removed at each thinning, creating a structurally diverse forest for the future.

        - The **understorey** is made up of the trees and shrubs that grow underneath the main crop (the **overstorey**), arising from natural regeneration, or **underplanting / enrichment planting** (where new trees are planted under, or among, the main crop). The understorey provides habitats for wildlife, and will often become the next crop of trees, when the overstorey is felled. The tops of the trees (the crown or leaves) is sometimes referred to as the **canopy**.

Explanation of some of the terms used in the forest plan (continued)

- **Thinning** is where selected trees are removed, giving the remaining trees room to develop. A thinning coupe consists of a number of stands that are assessed at the same time for readiness for thinning.

- **Coppicing** is a traditional woodland management technique where broadleaf trees are cut at the base allowing new stems to sprout; sometimes the whole coupe is coppiced; sometimes, larger trees (**standards**) are left alone and allowed to continue to grow. Areas of woodland that are not coppiced are often referred to as **high forest**.

- **Ancient woodland** is any area that has been wooded continuously since at least 1600 AD. It includes:
  - **ancient semi-natural woodland (ASNW)**, which is mainly made up of trees and shrubs native to the site, usually arising from natural regeneration;
  - **plantations on ancient woodland sites (PAWS)**, which are replanted with conifer or broadleaved trees, but retain ancient woodland features, such as undisturbed soil, ground flora and fungi.

- **Site of special scientific interest (SSSI)** is a formal conservation designation with statutory protection, meaning that the landowner must manage the land to protect or enhance the features for which it is designated, often rare species of fauna or flora, or important geological features. **Special area of conservation (SAC)** is an area which is afforded a higher level of protection than a SSSI. A **HRA (Habitats Regulations Assessment)** is produced for each forest plan that contains a SAC – see appendix.

- A **county wildlife site (CWS)** is a site of high biodiversity or wildlife value, which may be significant at a county, regional or national level. It is a formal designation, but offers no statutory protection.

- **Scowles** are a landscape feature almost unique to the Forest of Dean, and have traditionally been interpreted as the remains of early open-cast iron ore extraction. They range from shallow hollows to deep quarry-like features.

- The wooded **inclosures** are those areas that have been planted and cropped as a timber resource over hundreds of years. **Forest waste** refers to the areas of land, mostly on the fringes of the forest, that are either unsuitable or otherwise unwanted for tree planting, and therefore remained outside the inclosures.

- **Rides** are tracks through the forest – **ridesides** are often mown or coppiced to make them light and welcoming for visitors, and to create open sunny spaces for flowering plants and insects. Rides also act as **firebreaks** – spaces across which wildfire is less likely to spread.

- **Wildfires**, including forest fires, are defined as 'any uncontrolled vegetation fire that requires a decision, or action, regarding suppression'.

- **Veteran trees** have characteristics, such as holes, hollow trunks and fungi, that are valuable for wildlife. Sometimes they may be **halo thinned**, which is when neighbouring competing trees are removed to give the veterans more space. Standing and fallen **deadwood** also provides excellent wildlife habitat and is often left behind after forest operations.

- **Riparian** refers to streams and wetlands.

Appendix 2 – species abbreviations used in the forest plan (felling maps – pages 29-31)

Conifers	
CP	Corsican pine
DF	Douglas fir
EL, JL, HL	European larch Japanese larch Hybrid larch
NS	Norway spruce
SP	Scots pine
RC	Western red cedar
RSQ	Coast redwood
ORS	Oriental spruce

Broadleaves	
OK, ROK	Oak Red oak
HAZ	Hazel
SC	Sweet chestnut
BI	Birch
GAR	Grey alder
WST	Wild service tree
LLI	Large-leaved lime
PO	Poplar
IAR	Italian alder

Appendix 3 - Production Forecast

Once the forest plan has been approved, the production forecast (which estimates how much timber will be produced from the forest plan area within the plan period) will be run on the approved management coupes and included here.

Note that the Production Forecast System, and the yield models used to inform it, were developed primarily for single species, clearfell restock forestry systems. Outputs should be treated with caution when generated for mixed stands and low impact silvicultural systems.

Forester observation:
There is quite a lot to fell in this plan area between 2027-31 – for good reason as it is mainly larch, or to tie in with the next scheduled thinning cycle to complete watercourse buffering operations. This will clearly be reflected in the production forecast for this area, and the graph will appear unsustainable given this spike. However, it'll all be fine as long as sufficient resources are available to deliver the restocking where applicable. One or two clearfells may be pushed back into the next phase due to dealing with other areas of PR felling and lack of resource.

Appendix 4 - Consultation record

A summary of the responses from the external consultation of the forest plan will be included in the final version of the forest plan.

Forestry England - westenglandplanning@forestryengland.uk **XXXX**
2024

SSSI plans, SM plan, SAC HRA

The management plans for the sites of special scientific interest and the scheduled monument, and the habitats regulations assessment carried out as part of the forest planning process, are not added as appendices because they make the document too large!

They should be available to read alongside this forest plan as separate attachments. If not, please email westenglandplanning@forestryengland.uk to request copies.