



Forestry England

Dymock Forest Plan

Incorporating:

- Dymock Woods SSSI Management Plan
- Michael Harper Reserves Management Plan

2023-2033

Reference OP10/28

Rachel Giles

Summer 2023



Application for Forest Plan approval Dymock Forest - Summer 2023



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



Forest district	West England Forest District
Woodland or property name	Dymock Forest
Nearest town, village or locality	Newent, Gloucestershire
OS grid reference	Centre of the Plan area is at SO 6806 2787
Local authority	Herefordshire Council and Gloucestershire County Council Linton, Upton Bishop, Dymock, Kempsey and Oxenhall Parish Councils

Plan area	511 hectares
Conifer felling	8.88 hectares
Broadleaf felling	0 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.

Signature removed for website

Date 25th July 2023

Signed on behalf of Forestry Commission Area Director
.....signature appears on felling licence.....

Date19th September 2023.....

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Appendices

Explanation of some of the terms used in the Forest Plan
Consultation record
Dymock Woods SSSI Plan
Michael Harper Reserves Management Plan

Section 1 - Forestry England vision

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.

The foundation of our organisation is our world-class sustainable management 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>

For an explanation of some of the terms used in this Forest Plan, see [pages 26-27](#).

Section 2 - About Dymock Forest

Location

Forestry England's land in Dymock Forest covers 511 hectares and lies about 3 miles northwest of Newent in Gloucestershire and 5 miles northeast of Ross on Wye in Herefordshire (Figure 1). The Gloucestershire-Herefordshire county boundary cuts north-south through the Forest Plan area, parts of which fall into four parish councils.

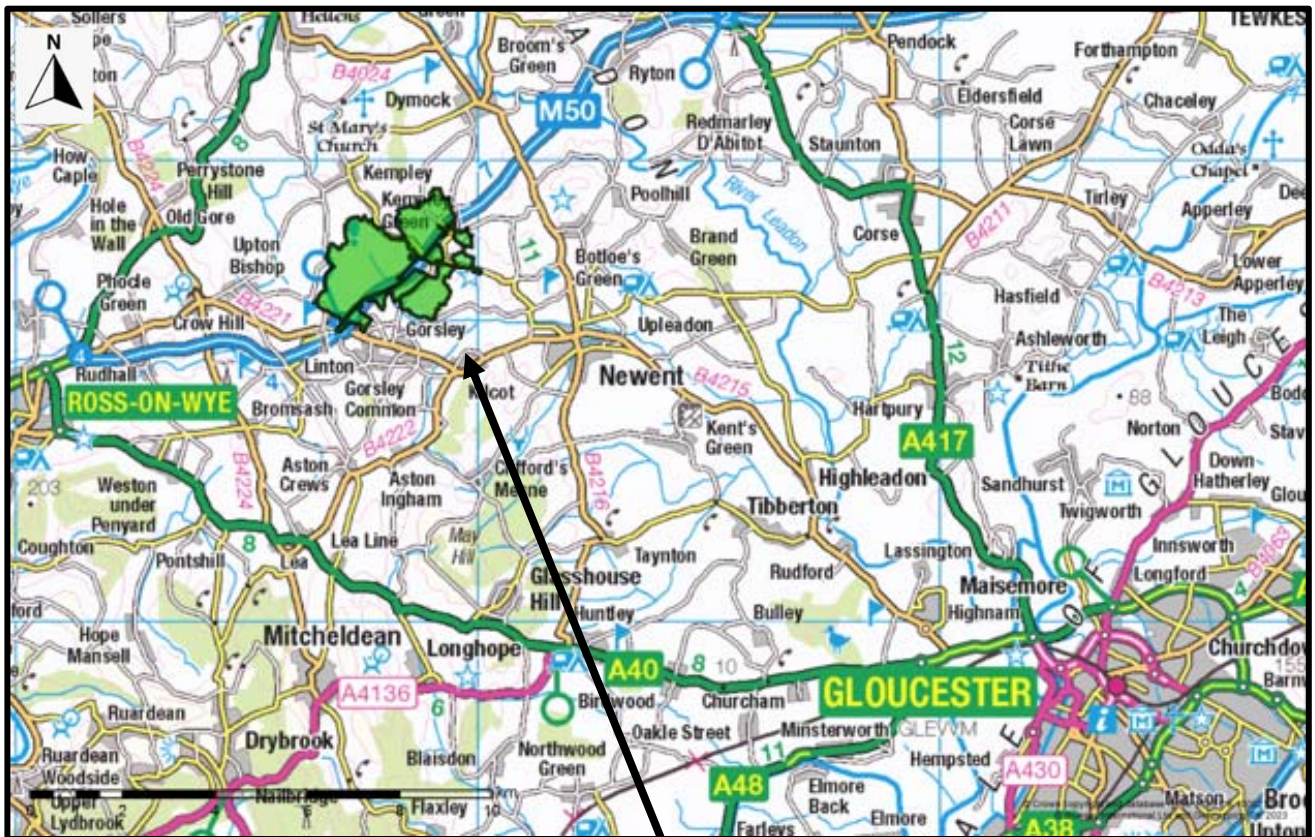


Figure 1
Location of the Dymock Forest Plan area

Location (continued)

Dymock Forest consists of one large area of continuous woodland, along with some smaller outliers to the south. Parts of the wood have different names depending on which map or management plan is referred to. The names which will be used in this Forest Plan are shown in Figure 2.

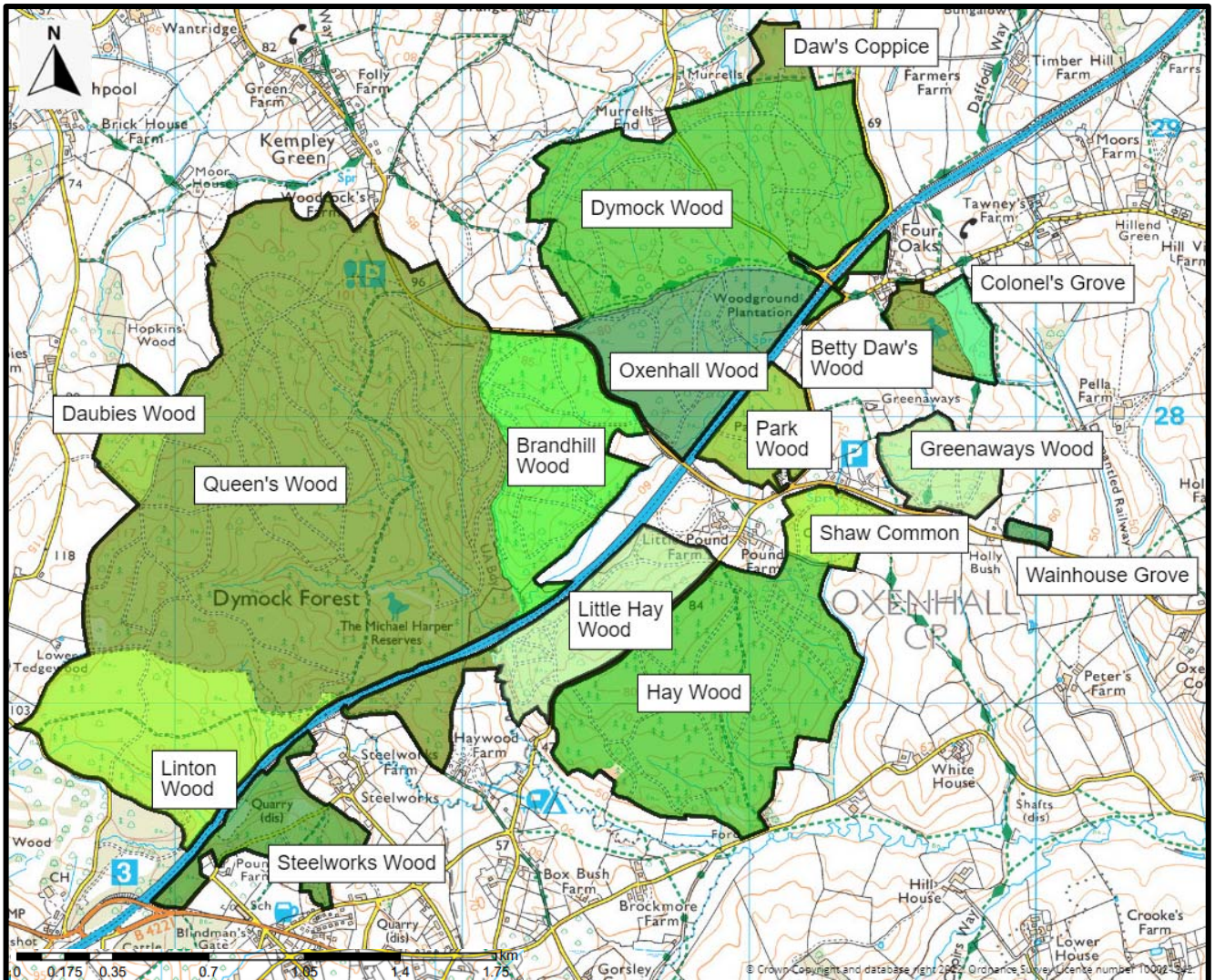


Figure 2
Dymock Forest - names used in the Forest Plan

Landscape

During the late 1990s and early 2000s, many authorities carried out extensive research into local landscapes - mapping the various landscape types, and describing the combinations of elements and features that make them distinctive.

The Herefordshire Landscape Character Assessment (LCA) (2004) puts Dymock Forest and surrounding area into the “wooded hills and farmlands” category, whereas the Forest of Dean (Gloucestershire) LCA (2009) describes it as “undulating hill farmland”. Both mean much the same - this is an area of discrete blocks of irregularly-shaped ancient semi-natural woodlands surrounded by fields bounded by hedgerows (**Figure 3**). Streams are important features - running through the woods and into the farmland, and other significant elements include remnants of heathland vegetation, old orchards and unimproved grassland on woodland edges that is populated by wild daffodils in the spring.

The Forest Plan area is divided by the M50 motorway, which was built in the 1960s, and a number of smaller roads pass through the woods. The woodland itself is mostly flat or gently undulating and there are few panoramic views over the forest from outside. Internal landscape is varied with areas of conifers, broadleaves, open space, numerous paths, forest roads and rides, streams, small ponds and a lake.

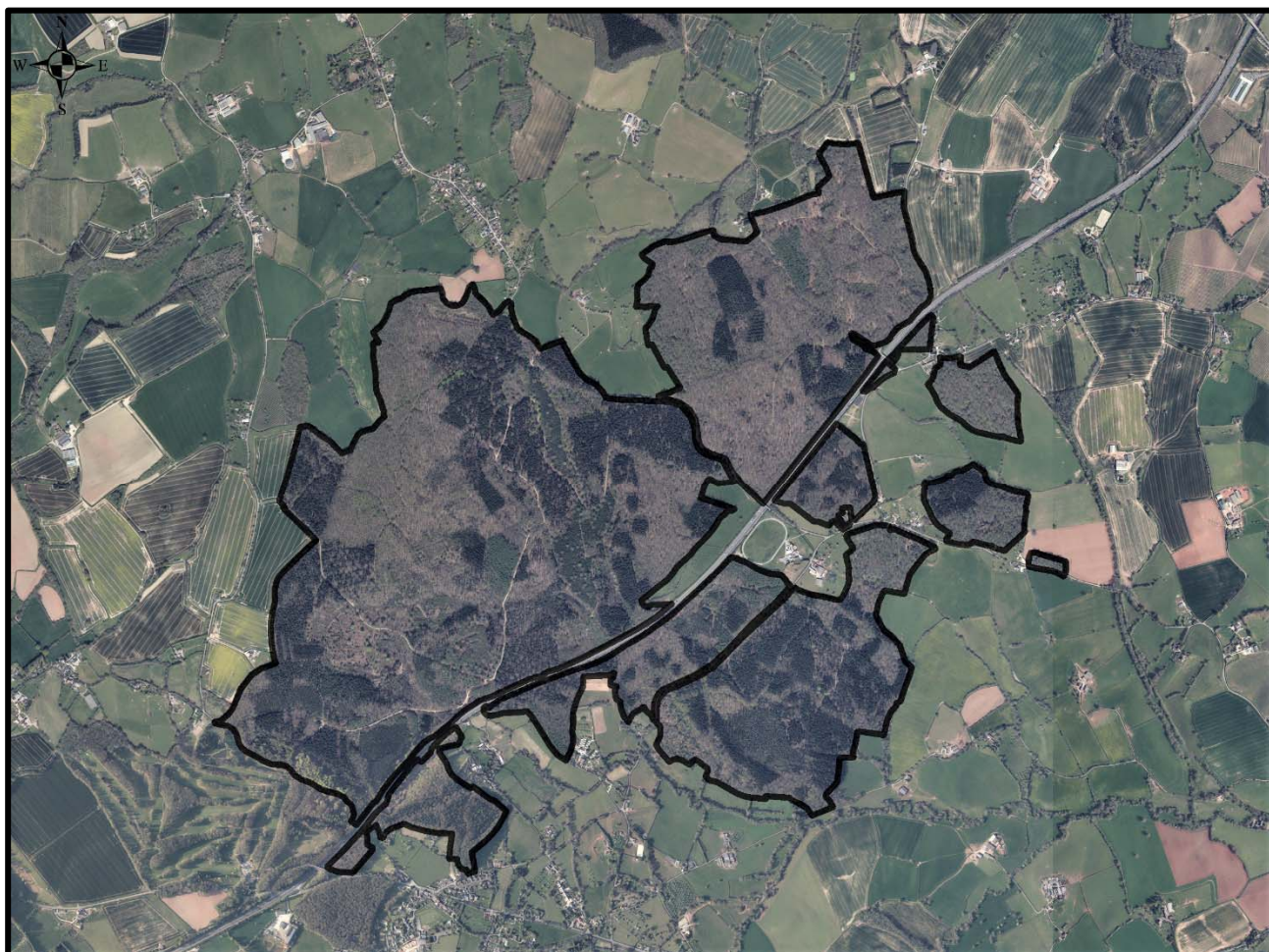


Figure 3
Aerial photo of Dymock Forest showing Forestry England land bordered in black, surrounding farmland and the M50 motorway cutting through the centre

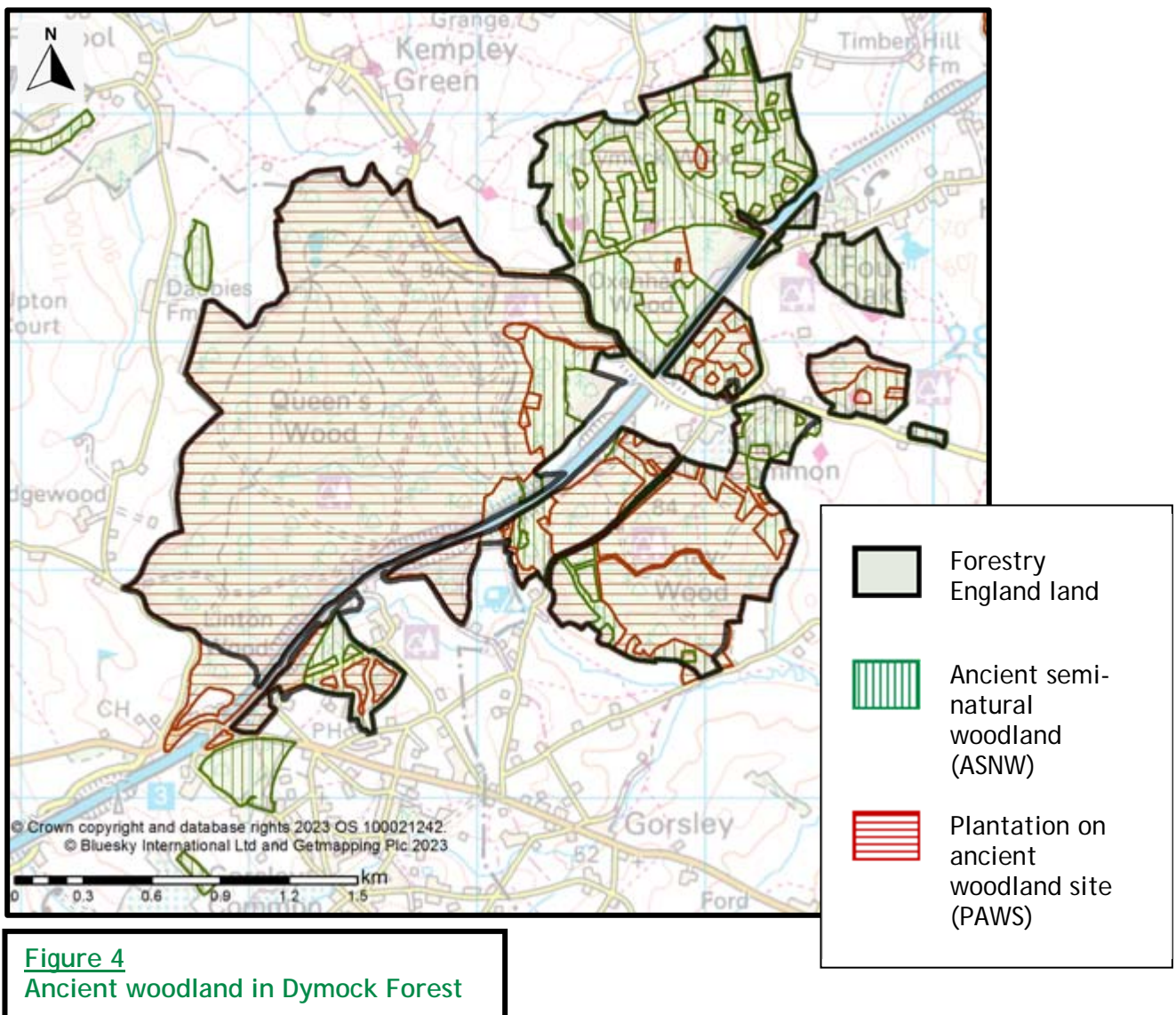
Designations - ancient woodland

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.

Secondary woodland is that which is growing on a site that has not been continuously wooded since 1600AD.

Almost all of Forestry England's land in Dymock Forest is recorded as PAWS or ASNW (Figure 4). Plantations on ancient woodland sites may be broadleaf or coniferous, and both exist in Dymock.



Designations - Site of Special Scientific Interest (SSSI)

An area of 53 hectares of Dymock Wood, Betty Daw's Wood and Colonel's Grove is designated a Site of Special Scientific Interest as an excellent example of sessile oak dominated woodland and for its Lepidoptera (butterflies and moths). The SSSI consists of three units (sections) - **Figure 5** - which were assessed by Natural England in 2013 and recorded as "unfavourable recovering", due to "lack of age structure, lack of veteran trees and scarce deadwood; limited open space; management activities planned but not implemented".

Forestry England has an approved SSSI Management Plan for 2019-24, which has been updated to the same timeframe as the Forest Plan, with actions and objectives to improve the condition (see **Appendix 2**). See **page 11** for more about the biodiversity of the SSSI.

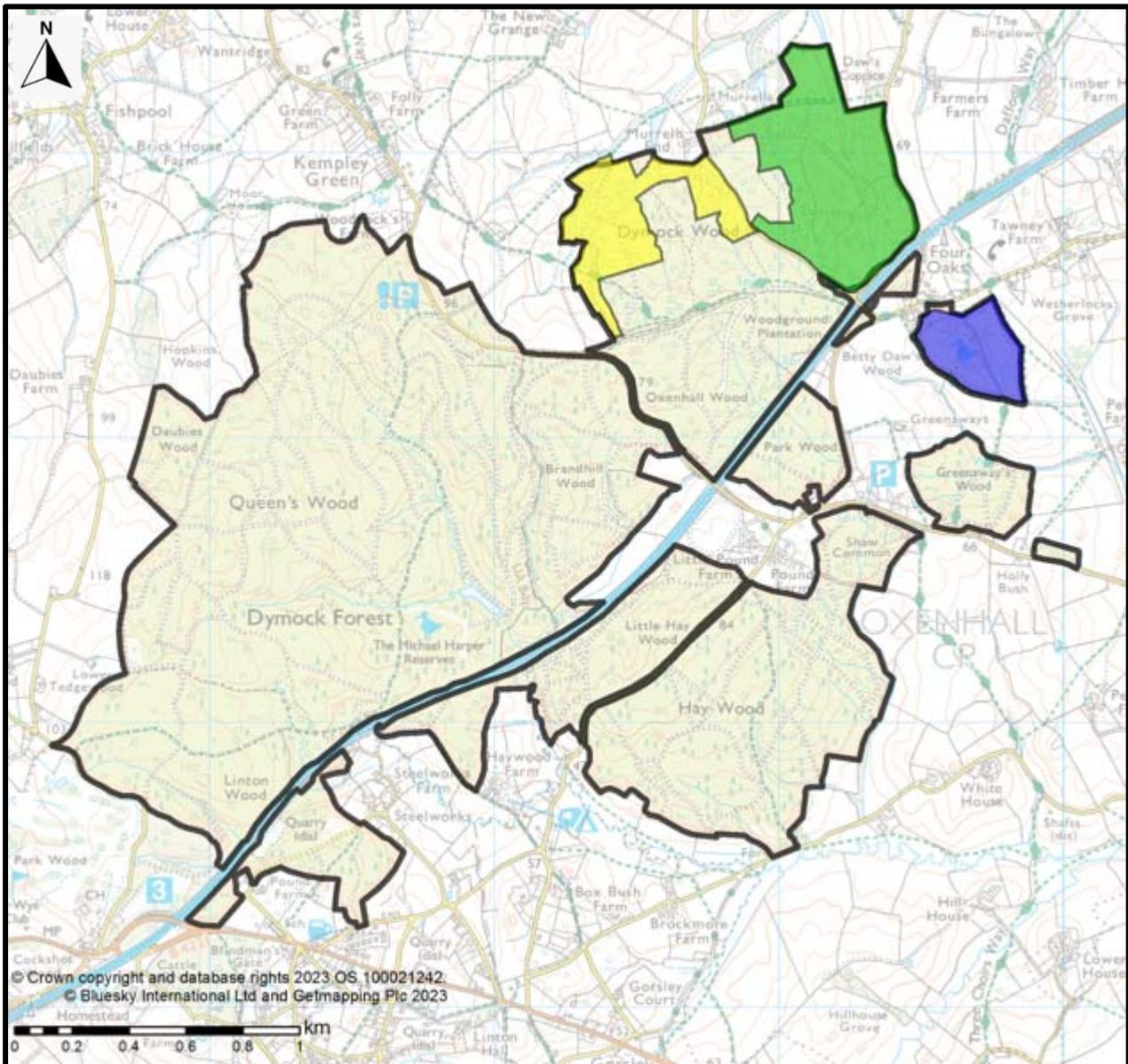


Figure 5
Dymock Woods Site of Special Scientific Interest (SSSI)



Registered seed stand

Large parts of Dymock Wood, Park Wood, Betty Daw's, Shaw Common, Greenaways, Little Hay Wood and Wainhouse Grove have been designated as a FRM (Forest Reproductive Material) registered seed stand owing to the high quality of sessile oak (Figure 6).

Several tons of acorns are collected most years.

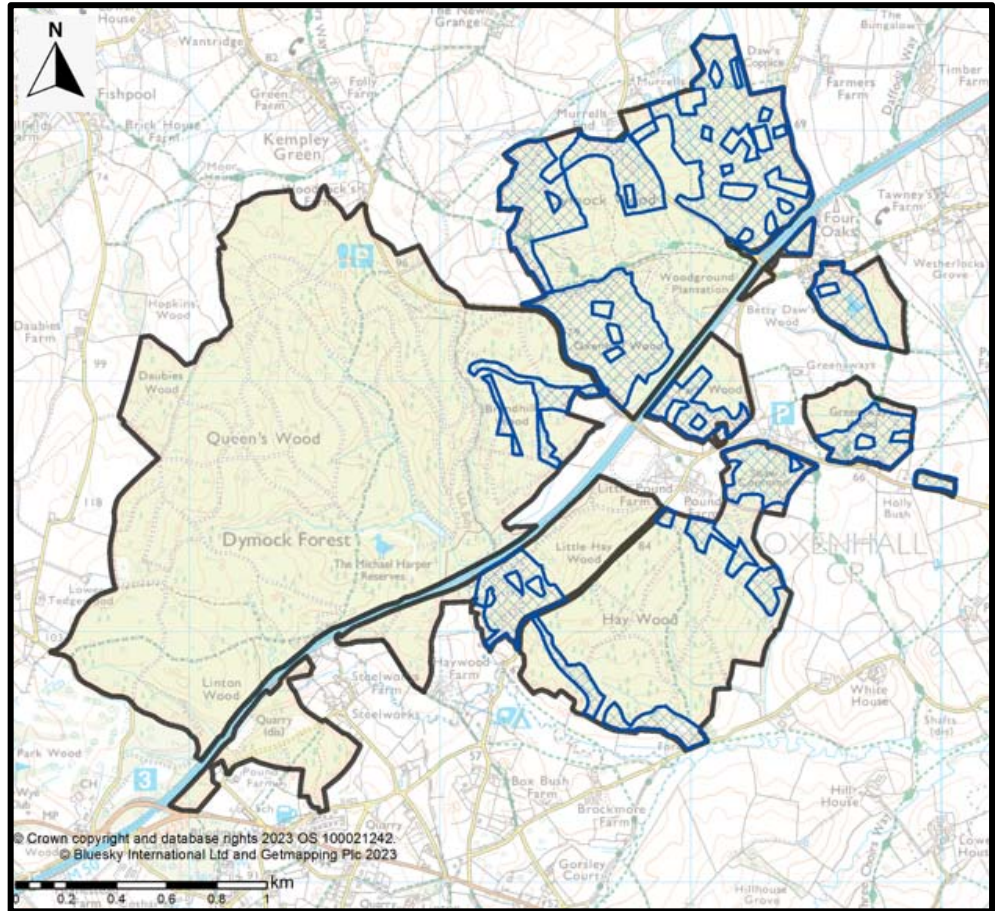


Figure 6
Registered oak seed stands in Dymock Forest

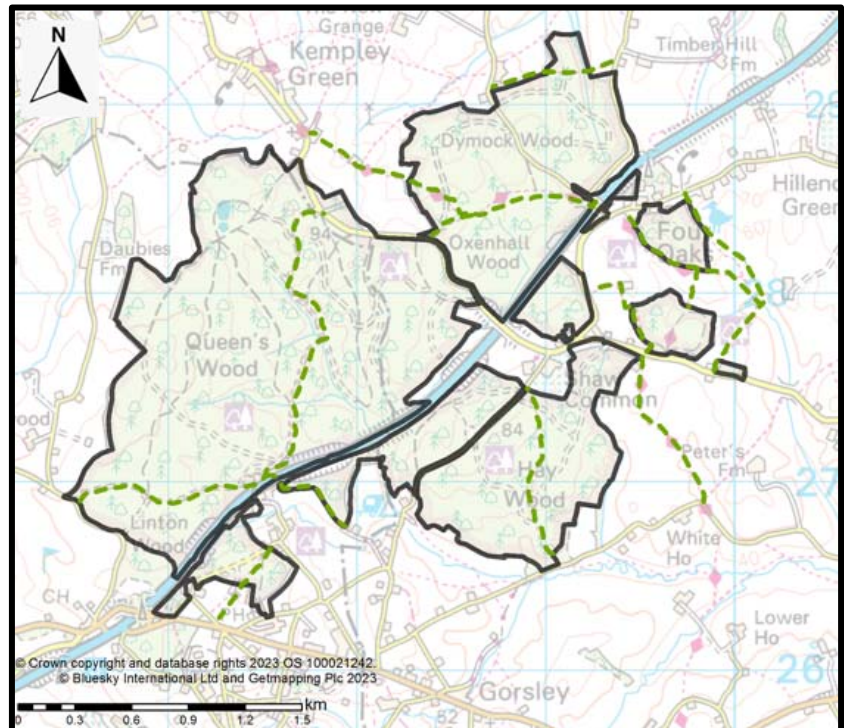


Public rights of way

The block is freehold and is dedicated under the CRoW Act, meaning that people are allowed to roam freely on the tracks and trails.

There are a few public rights of way which cross the woods (Figure 7), including the national trail "the Daffodil Way".

Figure 7
Public rights of way in Dymock Forest



Biodiversity - SSSI

The SSSI, the condition of which is described by Natural England as “unfavourable recovering”, is predominantly oak woodland with a hazel understorey in places, most of which has probably been managed as coppice in the past. Until 2008, there were patches of conifers within Units 1 and 2, but these were felled and replaced with planted sessile oak and prolific birch regeneration.

Recent work to improve the condition of the SSSI includes clearing vegetation from ridesides and track junctions to create temporary open space and sunny linear corridors connecting the areas of birch which are coppiced every 3 to 5 years. Deadwood has been created by felling some native trees and leaving them when they fall (photo to the right).



Potential future veteran trees have been identified and marked with bat and / or bird boxes (photo below), so that they are protected when the woodland around them is thinned.



Until recently, Unit 3 of the SSSI (Betty Daw’s Wood and Colonel’s Grove) was managed by Gloucestershire Wildlife Trust, although responsibility for its management has now passed back to Forestry England. Volunteers have been monitoring bird and dormouse boxes there for many years.

The citation (reason for designation) for the Dymock Woods SSSI is provided in full in the SSSI Management Plan (2023-2033), along with the action plan describing the work we will undertake in order to continue to improve the condition of the SSSI - [Appendix 2](#).

Biodiversity - Michael Harper Reserves

In Queen's Wood are a number of small, but important, areas managed as nature reserves (Figure 8). They were identified by a local entomologist, Dr Michael Harper, in the late 1960s as habitats of importance for Lepidoptera (moths and butterflies) and, at that time, were just small remnants of coppice, fen and heathland within a productive broadleaved and recently partly coniferised woodland. In agreement with the Forestry Commission, Dr Harper began recording the Lepidoptera here and, along with members of the Ledbury Naturalists Field Club, undertook small scale coppicing and clearing.

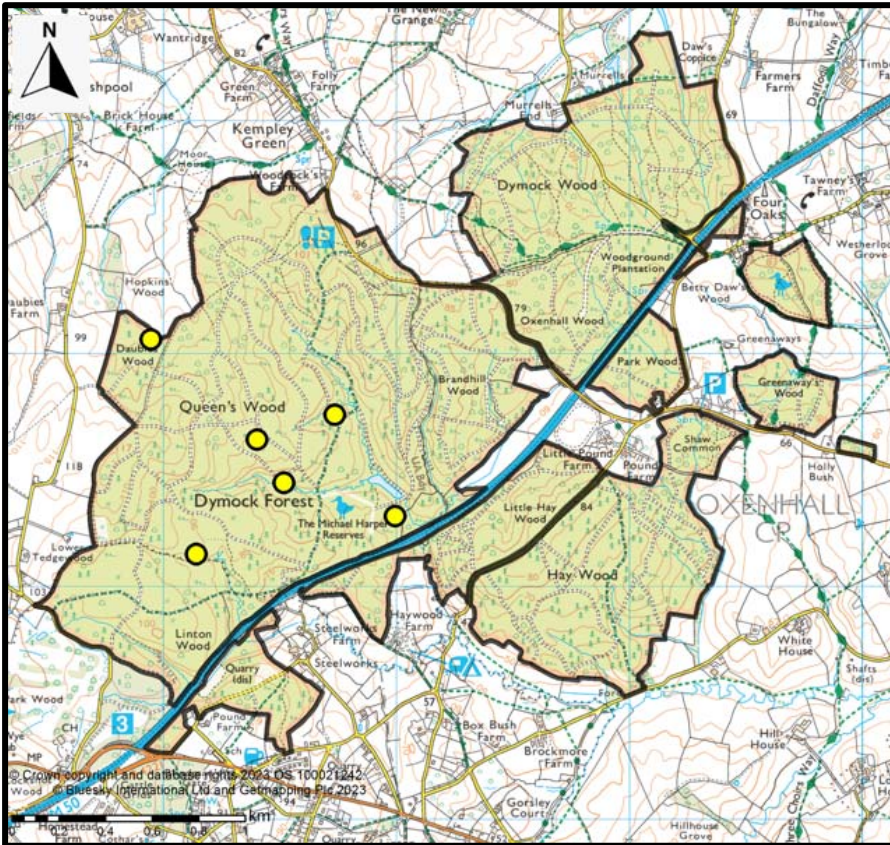


Figure 8
Map to show the locations of the Michael Harper Reserves

Today these reserves are still managed with biodiversity in mind, predominantly by volunteers under Forestry England guidance. Monitoring continues, not just of Lepidoptera, but also of plants, birds and small mammals including dormice which thrive in the reserves. Neighbouring areas have been cleared of conifers and allowed to regenerate naturally in a mosaic of birch and other broadleaves, patches of open space and heathland vegetation.

More information about the reserves is provided in the Michael Harper Reserves Management Plan - [Appendix 3](#).

Biodiversity - The Centenary Glade

Also in Queen’s Wood (Figure 9) is The Centenary Glade - a 2 hectare site which, following the removal of Norway spruce in 2015, was planted with flowering and fruiting trees of local provenance as a community project led by volunteers from DyFRA (Dymock Forest Rural Action). Native tree species include sessile oak, small leaved lime and rowan, as well as 100 wild service trees planted by local school children in 2019 to celebrate the centenary of the Forestry Commission. Over time, tree shelters and competing vegetation will be removed and the best trees selected to grow on to maturity.

The planted trees, together with birch natural regeneration, adjacent areas of bramble and other shrubs, and a small meadow in which wild daffodils are thriving, will develop into a fantastic habitat for wildlife, especially invertebrates, and are a great example of a partnership approach to native woodland creation and management (photo below).

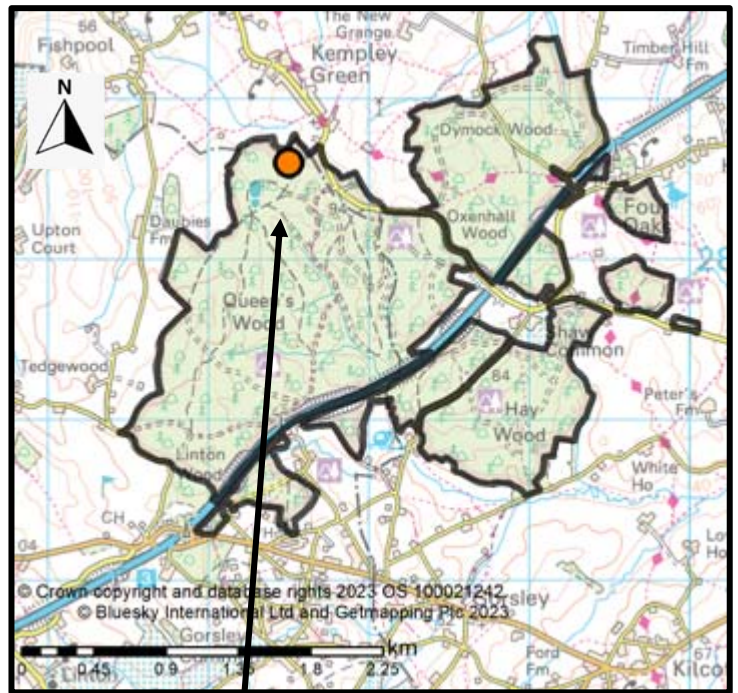


Figure 9 - Location of The Centenary Glade in Queen’s Wood



Biodiversity - the rest of Dymock Forest

Although the SSSI, The Centenary Glade and the Michael Harper Reserves are specific, defined areas that are managed for biodiversity, the rest of Dymock Forest contains numerous other important habitats and species.

Streams and ponds (Figure 10) support particular assemblages of plants, such as sedges and rushes, and associated invertebrates; in places, fallen branches cause streams to overflow creating wet woodland.

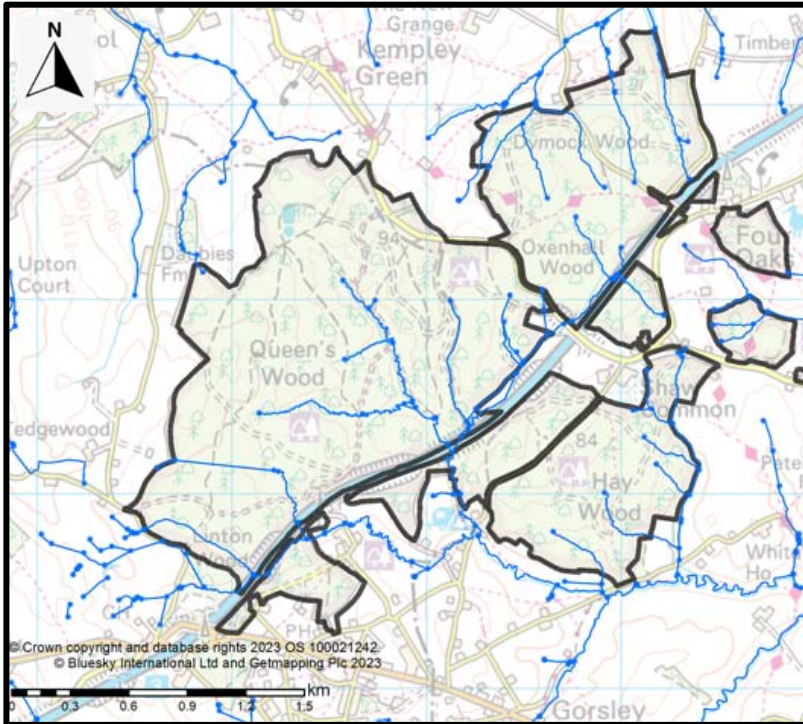


Figure 10 - Map to show the numerous streams running into and through Dymock Forest, and (above right) one of the many small ponds

More than 1000 species of butterflies and moths have been recorded in Dymock Forest, many of them locally and nationally rare, thanks to the diversity of flora including broad leaved helleborine, fragrant agrimony, herb paris and lily of the valley. Another uncommon invertebrate found here is the glow-worm - not actually a worm, but a beetle - which benefits from the open ridesides and dark night skies. Dormouse habitat, in particular the hazel which grows underneath the much older oaks, is common across Dymock and dormice breed successfully in many parts of the forest. Raven, goshawk and woodcock have also been recorded.

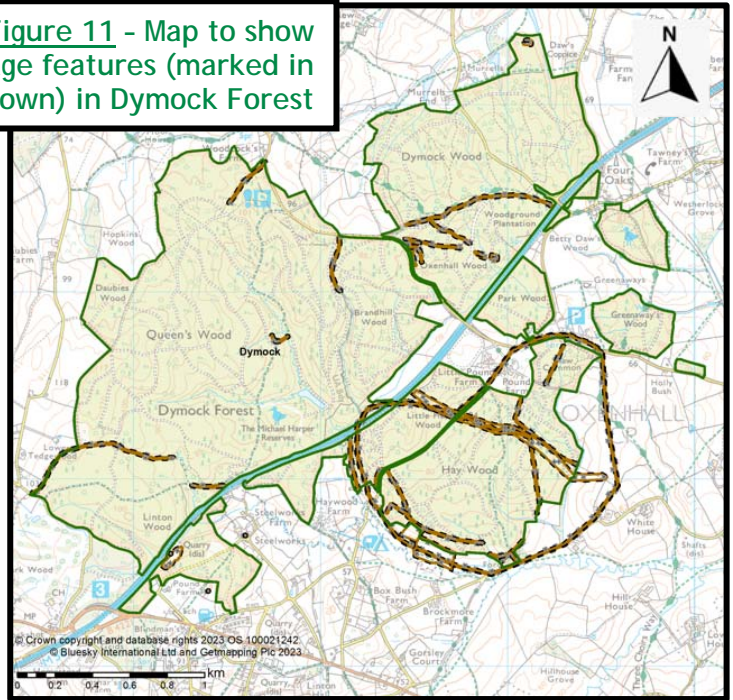
There are remnants of lowland heath in Queen's Wood, and towards the eastern side of the block are areas where wild daffodils flower in the spring (photo to the right), attracting many visitors. In Betty Daw's Wood, a small traditional orchard was planted with pear, plum and apple trees in 2004.



Heritage

There are a number of unscheduled heritage features on Forestry England land in Dymock Forest (Figure 11). These are mainly linear features - earth banks and associated ditches - the most significant one being the medieval earthwork - 'Danes Bank' - which encircles parts of Hay Wood and Shaw Common.

Figure 11 - Map to show heritage features (marked in brown) in Dymock Forest



Dymock - a working forest

As well as being valuable for biodiversity, heritage and recreation, Dymock Forest generates timber from broadleaf and coniferous trees. Active forest management - thinning, felling and coppicing trees - creates habitats in which wildlife thrives, and visual diversity for people to enjoy.

The eastern parts of the forest - the seed stand - produce some of the best sessile oak timber in the country, and removing the right quantities at the right times provides the remaining oaks with room to develop their crowns, enabling them to grow for many more centuries.

Felling conifers, at a scale appropriate to the site, provides temporary open space in which native woodland can become established.

Carefully planned thinning leads to a more diverse structure - with smaller trees growing in the gaps created.

Research plots in Dymock Woods

Forest Research, Great Britain's principal organisation for forestry and tree-related research, has five research plots in the Dymock Forest, three of which are part of the UK's network of permanent mensuration (forest measurement) plots, which date back to the very start of the Forestry Commission in 1920 (Figure 12). The oak trees in these plots have been measured over the past 100 years, contributing to the nationally-used species yield data tables.

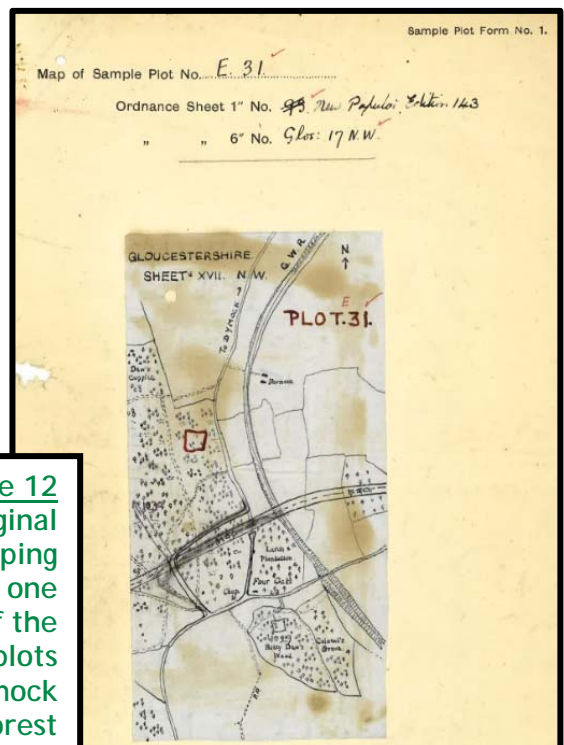


Figure 12 Original mapping (1920) of one of the research plots in Dymock Forest

Current tree species

Current proportions of broadleaves, conifers and open space as recorded in Forestry England's subcompartment database are shown in **Table 1** below.

Table 1 - Proportions of broadleaves and conifers in spring 2023	Area	Proportion of Dymock Forest Plan area
Broadleaves	337 hectares	66%
Conifers	163 hectares	32%
Open / felled / coppiced	10 hectares	2%

Only a small part of Dymock Forest is currently recorded as "open", which is not precise because there are always other areas which are temporarily open following coppicing or when rideside vegetation is cut, which are not usually recorded in the database as "open".

Figure 13 shows the proportions of each tree species group in Dymock Forest. The dominant broadleaf species is oak, and the most common conifer is Douglas fir. Other broadleaf species include beech, birch, alder, ash and small leaved lime, and other conifers include Norway spruce, larch and Scots pine.

Another significant species in the broadleaf woodland is hazel, which grows prolifically under the oak canopy and, in places, has been managed as coppice in the past. Hazel is a lower storey component so it has been excluded from the data used in this section because it is very challenging to estimate accurate proportions. Other lower storey components present in smaller proportions include holly and yew.

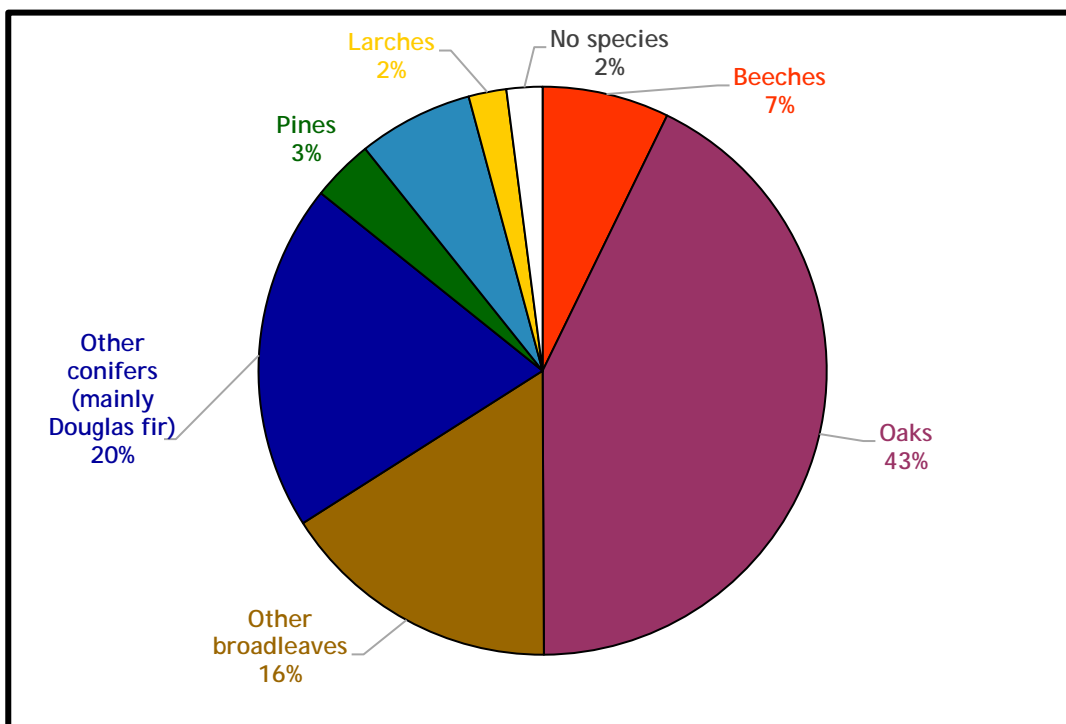
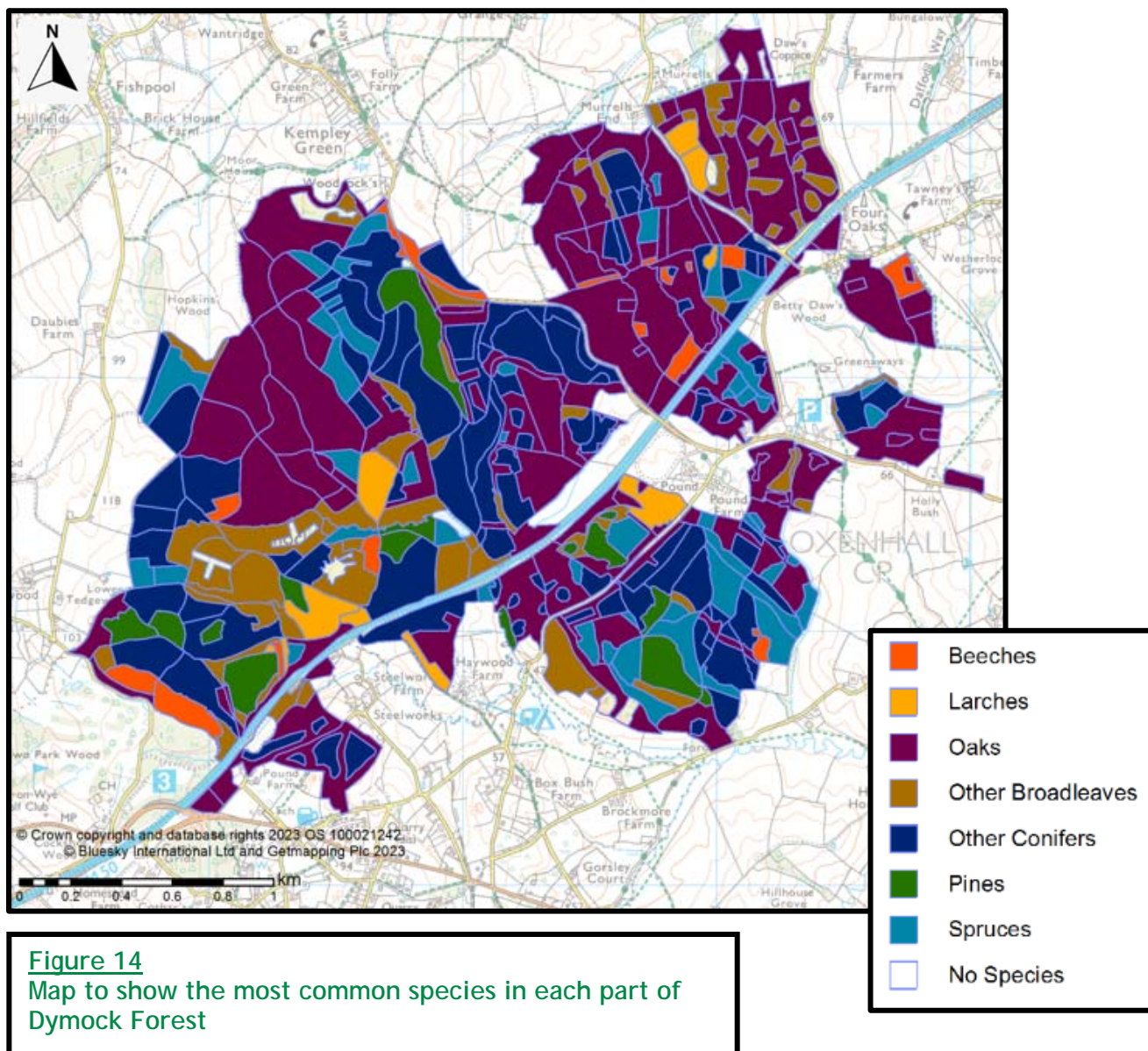


Figure 13
Chart to show proportions of different species in Dymock Forest

Current tree species (continued)

Figure 14 shows how the tree species groups are distributed throughout Dymock Forest.



Threats and challenges in Dymock Forest

Muntjac, fallow and roe deer, present in increasing numbers across the forest, cause a great deal of damage to regenerating hazel coppice, because they eat the young shoots. Grey squirrels are also a problem - they strip the bark from many broadleaf tree species, affecting the way the tree grows and sometimes killing it. Neither of these mammals were pests when the 1860 and 1930 oaks were established in Dymock, but now, they both have a huge impact on the success of any broadleaf planting or regeneration, and have to be considered in our management planning.

Ash dieback has become a problem in woodlands across the country, but there is very little ash in Dymock Forest. Diseases of larch and Corsican pine are also causing problems elsewhere, but again, are not a big issue here. At the moment, therefore, tree diseases are not a big driver of management decision making in Dymock.

Current age composition

Figure 15 shows how many hectares of tree planting (or natural regeneration following coppicing or felling) took place in Dymock Forest in each decade. We don't have very accurate records of exact years that the older trees were planted, which is why the pre-1900s have been grouped together.

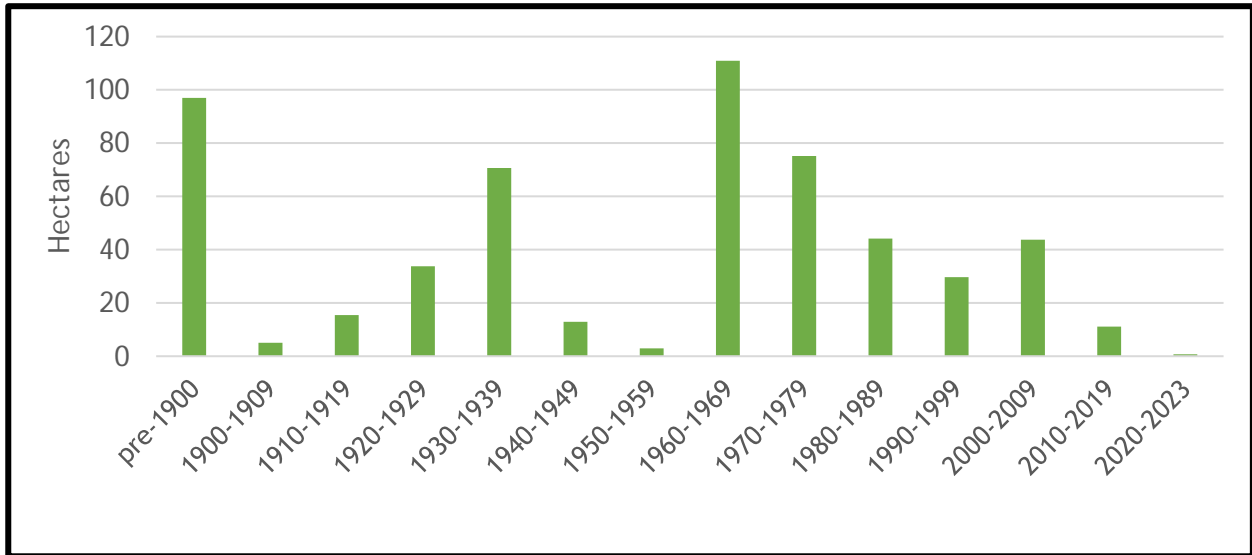


Figure 15
Chart to show area (in hectares) of Dymock Forest that was established in each decade

Figure 16 is a map of the woods with the planting / establishment years shown in different colours. The peaks from Figure 9 are matched to some of the most significant features of the woods:

- Pre-1900 planting is shown in orange - this is the oak seed stands in the eastern parts of Dymock Forest.
- The yellow areas are where extensive areas of oaks were planted around 1930.
- Turquoise parts are where conifers were planted in the 1960s and 70s.
- Darker blues represent more recent planting and coppicing in the SSSI and Michael Harper Reserves.

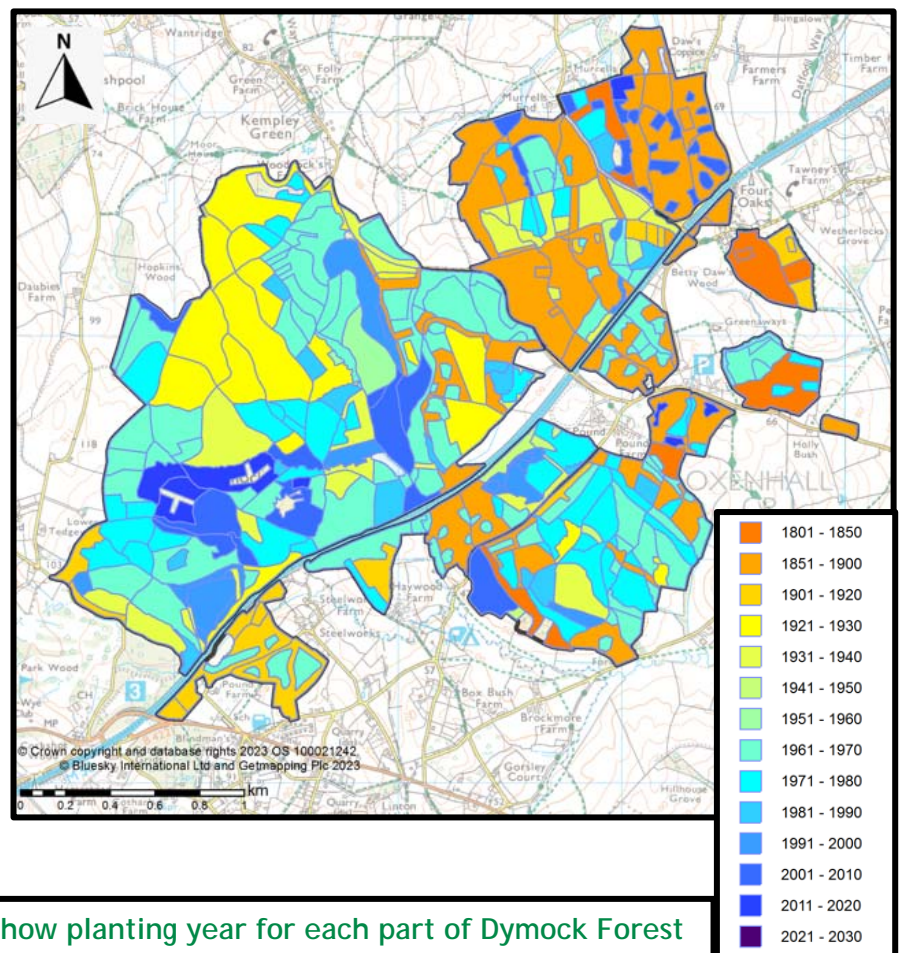


Figure 16 - map to show planting year for each part of Dymock Forest

Section 3 - Objectives

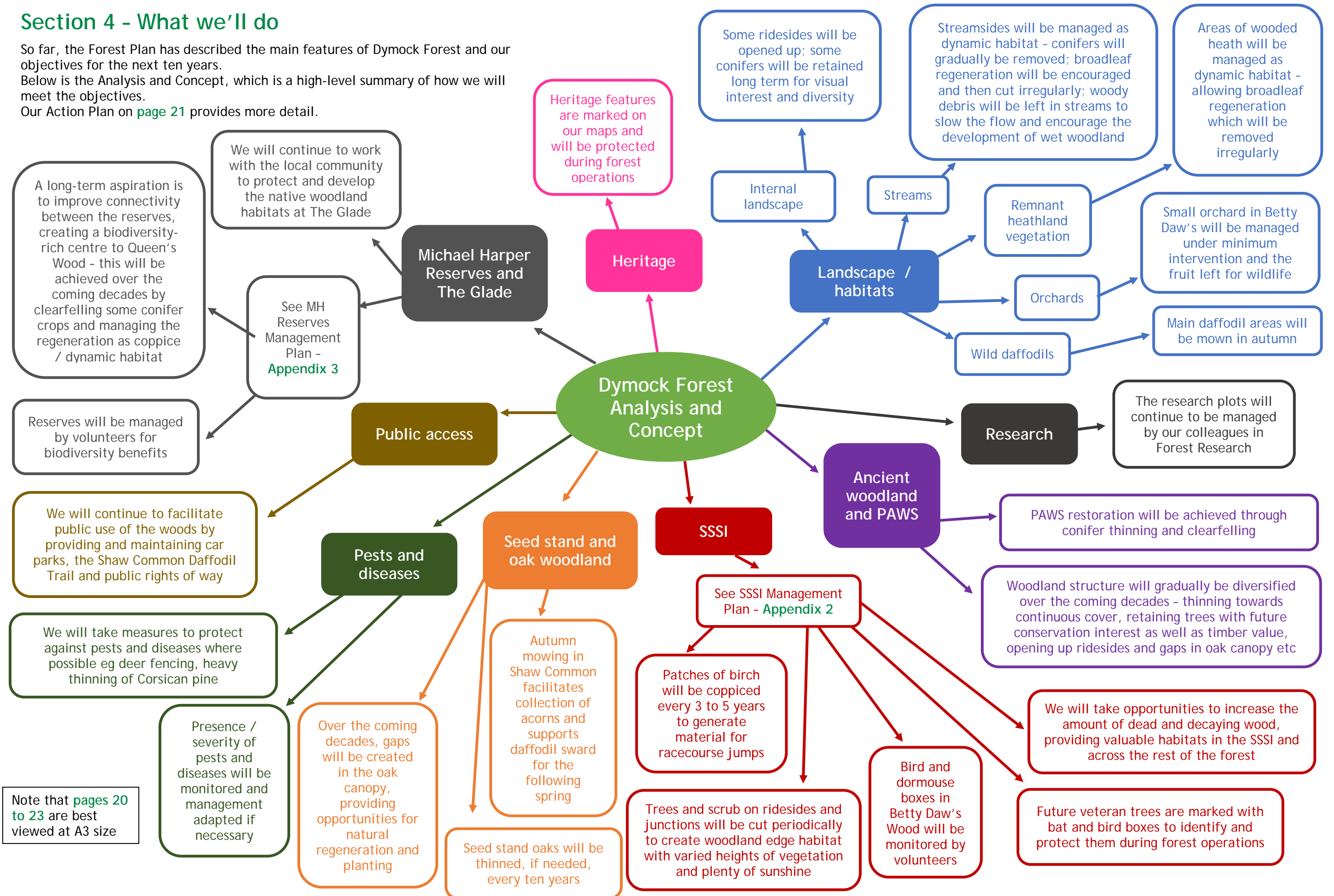
Our Forest Plan objectives, and how they link to the Forestry England vision, are listed in [Table 2](#) below.

Table 2
Objectives of management in Dymock Forest

<p>Forestry England vision for the nation's forests</p> <p style="text-align: right;">→</p> <p>Dymock Forest Plan objectives</p> <p style="text-align: right;">↓</p>	<p>Our vision for wildlife: The nation's forests provide the most valuable places for wildlife to thrive and expand in England.</p>	<p>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.</p>	<p>Our vision for the 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.</p>
Generate forest products to suit current / changing markets			✓
Increase resilience to future changes in climate, pests and diseases	✓	✓	✓
Improve ecological condition and restore ancient woodland	✓	✓	✓
Protect the historic environment		✓	
Provide opportunities for informal public use and enjoyment		✓	

Section 4 - What we'll do

So far, the Forest Plan has described the main features of Dymock Forest and our objectives for the next ten years. Below is the Analysis and Concept, which is a high-level summary of how we will meet the objectives. Our Action Plan on [page 21](#) provides more detail.



Note that [pages 20 to 23](#) are best viewed at A3 size

Dymock Forest Action Plan Actions - what we will do (2023-33)	Objectives - what we hope to achieve					Monitoring - how we will measure success
	Generate forest products to suit current / changing markets	Increase resilience to future changes in climate, pests and diseases	Improve ecological condition and restore ancient woodland	Protect the historic environment	Provide opportunities for informal public use and enjoyment	**note that some of these are long-term goals - possibly not evidenced in this Forest Plan period
Ancient woodland and PAWS Conifer and broadleaf thinning <ul style="list-style-type: none"> All stands will be surveyed for readiness for thinning between 2024 and 2029 Conifer thinning regime will depend on whether stand is being worked towards final clearfell or PAWS restoration (see management prescriptions map page 22) Oak thinning - favour best timber trees AND those with veteran / biodiversity potential Begin to create gaps in oak canopy where natural regeneration is developing underneath (probably in future plan periods) Conifer clearfells - for detail, see felling plan on page 23 <ul style="list-style-type: none"> Clearfell 5 conifer coupes - total 8.88ha Restock with broadleaves / natural regeneration 	✓	✓	✓			<ul style="list-style-type: none"> Have conifers been thinned? Have clearfells and restocking been carried out as per the felling plan? **Has proportion of conifers been reduced?* **Have gaps been created in oak canopy facilitating natural regeneration? **
Seed stand <ul style="list-style-type: none"> Assess for readiness for thinning every ten years - thin to encourage crowns to develop so that oaks continue to produce quality timber and acorn crop Continue to facilitate annual acorn collection 	✓					<ul style="list-style-type: none"> **Have seed stand oaks been thinned?* Are acorns being collected regularly?
SSSI <ul style="list-style-type: none"> Actions are listed in the SSSI Management Plan - Appendix 2 	✓	✓	✓	✓	✓	<ul style="list-style-type: none"> Monitoring methods are set out in the SSSI management plan - Appendix 2
Landscape / habitats <ul style="list-style-type: none"> To improve water quality and value of streamside habitats, conifers will be removed along watercourses, and broadleaves allowed to regenerate; they will then be managed as dynamic habitat (page 22); woody debris will be left in streams (where safe to do so) to slow the flow and to develop wet woodland Opportunities to coppice rideside vegetation, creating sunny corridors for Lepidoptera, will be identified through the site planning process prior to forest operations (apart from in the SSSI where it is more formally mapped) Some conifers (eg Scots pine, Douglas fir) will be retained to become very large and old, and deadwood will be allowed to accumulate to benefit invertebrates Wooded heath areas will be managed as dynamic habitat (page 22) Daffodil areas will be mowed in autumn The orchard will be managed under minimum intervention, leaving the fruit for wildlife and for local people to forage 	✓	✓	✓		✓	<ul style="list-style-type: none"> **Have conifers been removed from streamside?* **How successful is dynamic habitat management (streams / wooded heath)?** Have opportunities been taken to open up ridesides? Have some conifers been identified for long term retention?
Michael Harper Reserves and The Glade <ul style="list-style-type: none"> Actions are listed in the MH Reserves Management Plan - Appendix 3 Continue to work with Dyfra to develop ideas to increase biodiversity in the Glade and surrounding woodland 				✓	✓	<ul style="list-style-type: none"> Are MH Reserves being managed according to the plan (Appendix 3)? Have we continued to work with Dyfra to develop projects for biodiversity?
Heritage <ul style="list-style-type: none"> Ensure that heritage features are marked on our maps and are considered in the site planning process before forest operations 				✓		<ul style="list-style-type: none"> Are historic features considered during the site planning process?
Community engagement <ul style="list-style-type: none"> Inform stakeholders about the Forest Plan through the external consultation process - trial new methods of engagement and analyse effectiveness Continue to value work carried out by volunteers - MH Reserves, The Glade and nestbox monitoring 					✓	<ul style="list-style-type: none"> How much public engagement has taken place, and has it been successful? Are volunteers still welcomed and valued?

Our management prescriptions for Dymock Forest (Figure 17)

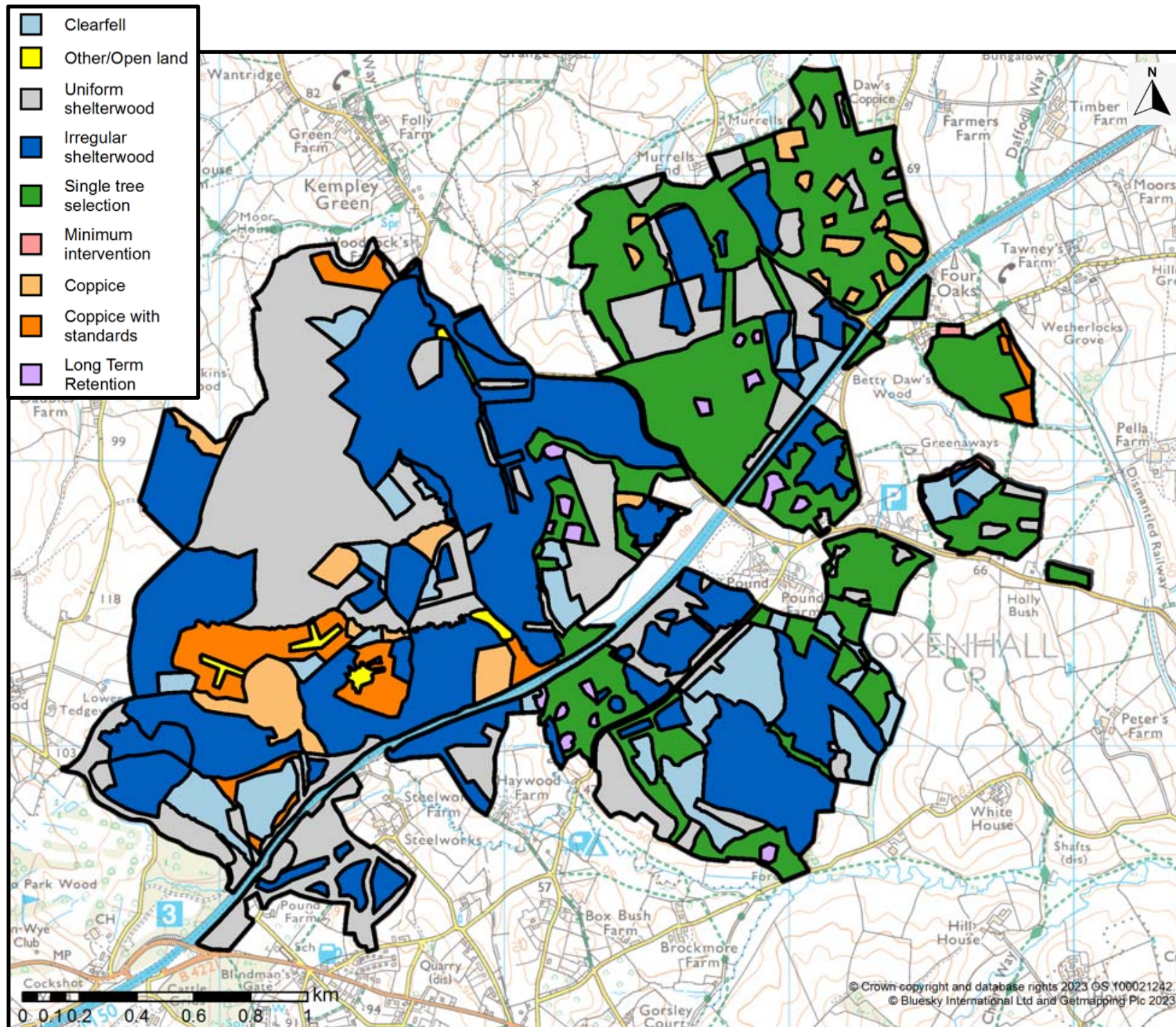
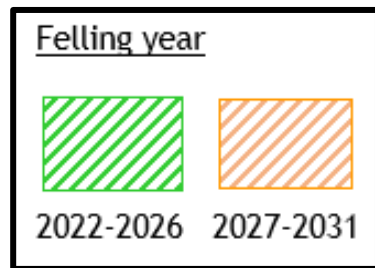


Figure 17 - Management prescriptions for Dymock Forest

- Conifer crops with substantial broadleaf understorey will be managed as **irregular shelterwood** - the overstorey of conifers will be removed gradually through thinning, creating space around the broadleaves so that they can develop to become the next crop.
- The 1930s oaks and some other broadleaf areas are managed as **uniform shelterwood** - the overstorey provides seed and shelter for the next generation of trees to develop.
- The oak seed stand and other pre-1800 oaks will be managed under a **single tree selection** system where trees are considered, and managed, individually. This will enable them to continue to be a valuable seed source and to develop into very old trees providing important wildlife habitats in the future.
- Some conifer crops, which have no significant broadleaf component, will be **clearfelled** when they reach economic maturity, either in this plan period or future decades (see felling plan - [page 23](#)), and restocked with native broadleaf species.
- The orchard in Betty Daw's Wood and a strip along the northern edge of Greenaways will be managed under **minimum intervention**, which benefits species that do well under low levels of disturbance.
- **Coppicing** is important in Dymock Forest, and there are a few different types of management that fall under this heading, all of which create mosaics of temporary open space and different aged regrowth:
 - Areas of birch in the centre of Queen's Wood and the SSSI will be cut every 3 to 5 years or so, generating material for horse racecourse jumps.
 - The Michael Harper Reserves are managed on coppice rotations of varying lengths to benefit different species of flora and fauna.
 - The Glade and part of Colonel's Grove are managed as coppice with standards (individual trees at low density which are left to grow on when the understorey is cut).
- Small patches of conifers growing among the large areas of broadleaf woodland will be thinned gradually towards PAWS restoration, with the intention of keeping some individual conifers and small groups as **long-term retention** to provide visual interest and diversity in the internal landscape.
- **Dynamic habitat** - although not recorded as a management type in our GIS system (and therefore not shown on [Figure 17](#)), Forestry England values transitional, dynamic habitats, for example where scattered trees grow irregularly in former open space, and where ridesides and streamsidess are partially cleared and then allowed to regenerate naturally. Ecologically, these areas provide a wealth of microhabitats - in shade and in sunlight, and with mosaics of different aged vegetation and open space - and are even more valuable where they are linked together to form networks. In Dymock, the lightly wooded heath adjacent to the Michael Harper Reserves will be managed as dynamic habitat (recorded on [Figure 17](#) as 'coppice with standards'), as will some streamsidess and ridesides.

Dymock Forest - felling plan 2023-2033 (Figure 18)



Clearfell coupe 28041 (0.64ha)
Fell 2028/29

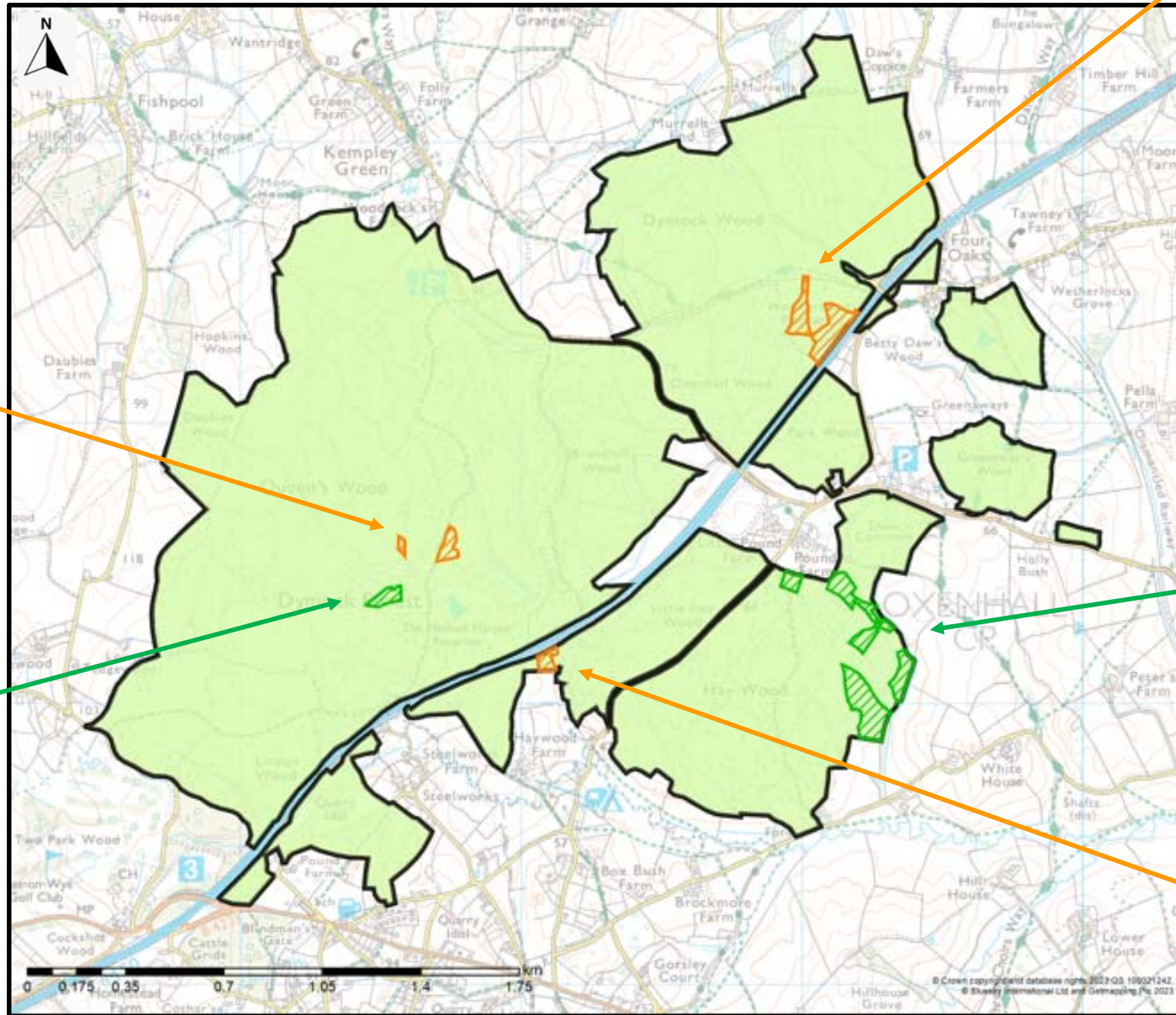
Create large open glades up to 0.1ha on rideside

Restock:
Allow to regenerate naturally into areas of dynamic habitat that will be coppiced from time to time and will improve connectivity between the Michael Harper Reserves

Clearfell coupe 28039 (0.50ha)
Fell 2024/25

Clearfell Norway spruce in centre of Michael Harper Fiveways Reserve

Restock:
Allow to regenerate naturally then will be managed by volunteers as coppice / dynamic habitat



Clearfell coupe 28061 (2.38ha)
Fell 2028/29

Clearfell Norway spruce and Douglas fir; retain broadleaves along the edge of the motorway and consider keeping a few individual mature Douglas fir for visual interest / long term retention

Restock:
Restock with mixed broadleaves - oak, hornbeam

Clearfell coupe 28011 (4.97ha)
Fell 2023/24

Clearfell Norway spruce and Douglas fir; retain any broadleaves

Restock:
Restock the majority of the coupe (4.7ha) with mixed broadleaves - oak, wild cherry, lime

Allow streamside to regenerate naturally to become dynamic habitat (0.3ha) - a mosaic of native species and open space that may be coppiced from time to time

Clearfell coupe 28019 (0.39ha)
Fell 2028/29

Clearfell when thinning neighbouring coupe

Restock:
Restock the majority of the coupe with common alder and oak

Allow streamside to regenerate naturally to become dynamic habitat - a mosaic of native species and open space that may be coppiced from time to time

Figure 18 - Felling operations to be carried out in Dymock Forest 2023-2033

Dymock Forest - felling plan 2023-2053 (Figure 19)

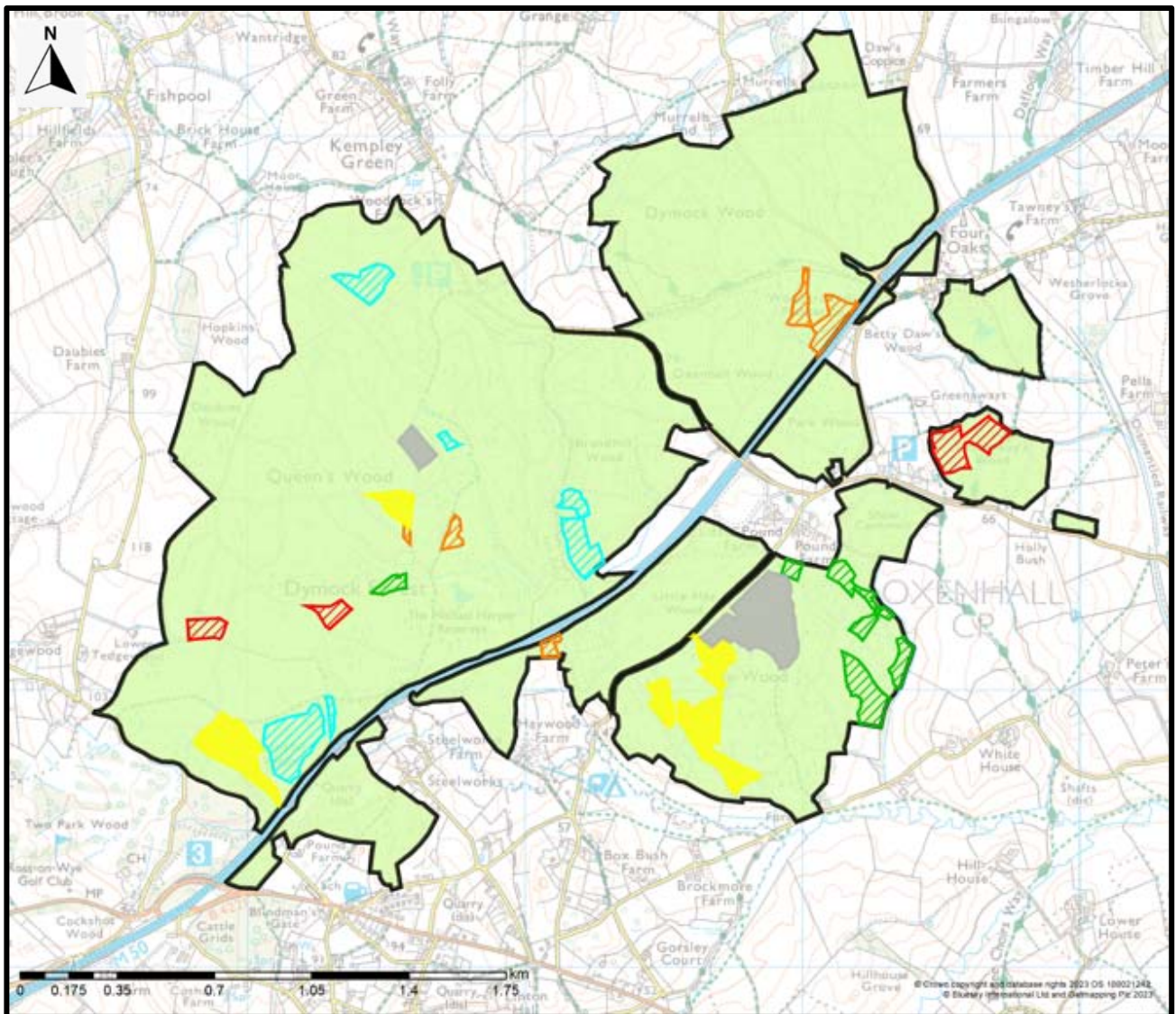
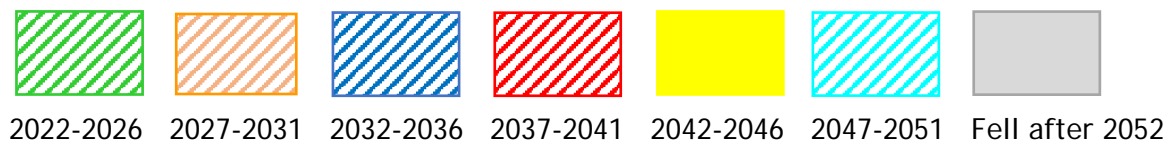


Figure 19 - Long term felling plan for Dymock Forest 2023-2053

Felling year



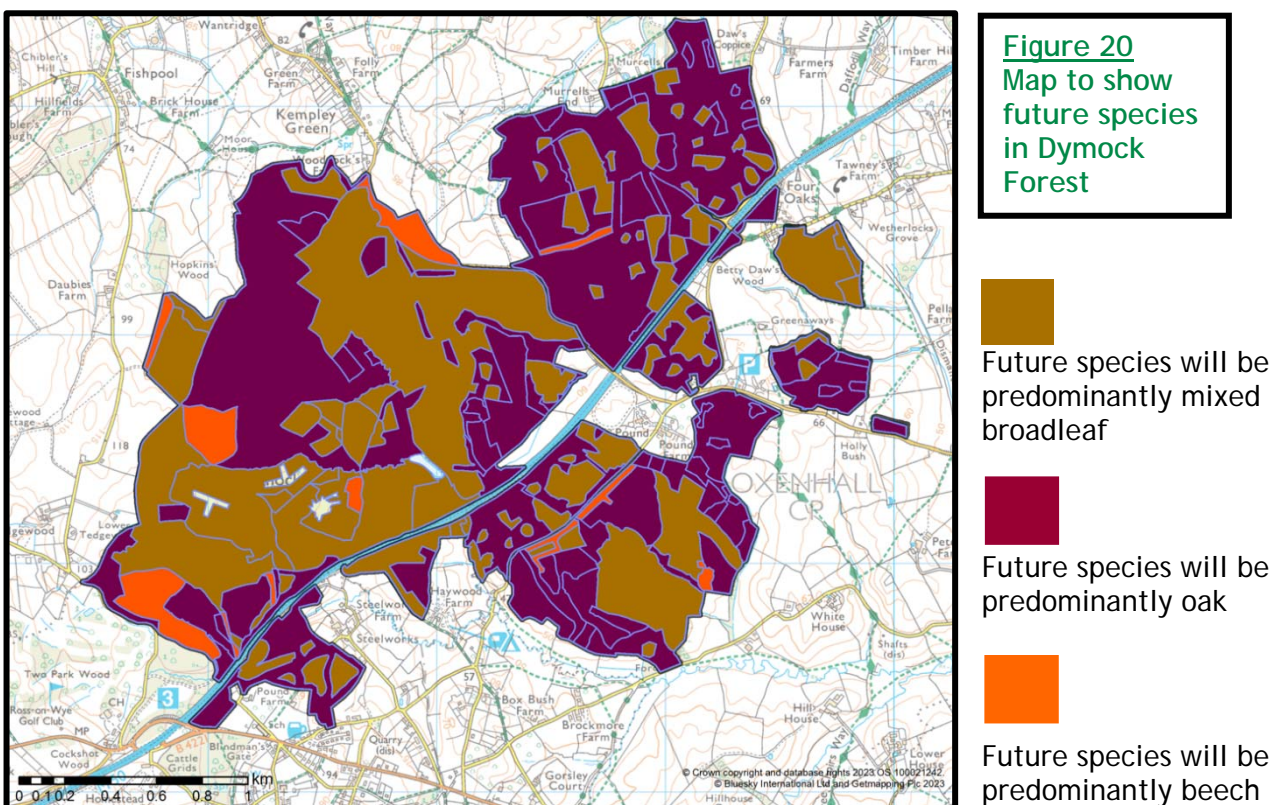
Future habitats and species

The proportion of conifers in Dymock Forest will gradually be reduced through clearfelling conifer crops and through thinning mixed stands to favour broadleaf trees.

Many of the broadleaf crops in Dymock, for example the 1930s oaks, are being managed under shelterwood systems, meaning that the overstorey provides the seeds for the next generation of trees, and suggesting that future crops will be of a similar composition to those currently growing on site. However, in order to ensure that the woods are resilient to changes in climate and pests and diseases, we will need to take opportunities to diversify. This is not a priority for this plan period (2023-33) because the oaks are still relatively young and have decades of growth ahead of them. However, in future plan periods, we will need to create gaps in the oak canopy and plant more varied species mixtures.

When choosing which species to plant in the gaps and following clearfelling, we will consider the National Vegetation Classification (NVC) woodland type and other site features, such as aspect and soil, and will begin to use the Forest Development Types (FDT) system as and when it is adopted by Forestry England. We expect to continue to plant oak, as well as lime, wild cherry and hornbeam, alder in wet areas, and other minor species such as hazel and wild service. We may take opportunities to plant experimental species in order to assess their potential for forestry in the future. However, as almost all of Dymock Forest is PAWS, these experiments will be on a very small scale and with the approval of our ecologist.

Figure 20 below gives a broad overview of the future species - indicating that we anticipate Dymock Forest to retain a high proportion of oaks, with some areas of beech, and the remainder being mixed broadleaf woodland. Note that the map does not represent a specific date because crops will all reach maturity and be replaced at different times. Note also that the map doesn't show the diversity of species that we anticipate being present in Dymock in the future - areas shown as mixed broadleaf will actually contain many different species, and areas shown as oak or beech will be more structurally diverse and species rich than the current crops.



Section 4 - Appendices

- Explanation of terms used in the Forest Plan
- External consultation record
- Dymock Woods SSSI Management Plan
- Michael Harper Reserves Management Plan

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.
- 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.
- **Ancient semi natural woodland (ASNW)** and **plantations on ancient woodland sites (PAWS)** are described on page 8.
- **Broadleaves** are trees with broad, flat leaves e.g. oak, hazel, birch. Most are deciduous (lose their leaves in winter). **Conifers** are trees with cones and needles e.g. Norway spruce, Douglas fir. Most are evergreen, but not all e.g. larch is a deciduous conifer.
- The forest is divided into **coupes** - groups of trees which will be managed in the same way. Management prescriptions (**forest operations**) include:
 - **Clearfelling** - where all the trees in an area are cut down - 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** (replant) with a different species which may be more appropriate for the site and its management objectives.
 - **Coppicing** - 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 usually referred to as **high forest**.
 - **LISS** - or **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 which are explained on page 22.
 - **Thinning** is where selected trees are removed, giving the remaining trees room to develop.
- **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.
- 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, usually from the previous crop, or overstorey.

- The **understorey** is made up of the trees and shrubs that grow underneath the main crop (the **overstorey**), from seeds from above, or through deliberate **underplanting** (where new trees are planted under 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**.
- The forest is managed by a beat team, which includes the **forester**, **ecologist**, community ranger, works supervisor (who oversees the operational contracts) and tariffing team (who measure and mark which trees will be felled and which will be kept during forest operations).
- **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.
- The **NVC (National Vegetation Classification)** describes the plant communities and trees that would grow naturally on a site - we use it to guide species choice when deciding what to plant as it gives us an idea of which species will grow successfully.
- **FDT (Forest Development Types)** is a new system which will provide guidance as to how manage stands of mixed species in the forest.
- **Dynamic habitat** refers to areas of patchy natural regeneration and open space, where trees will be removed from time to time to create a mosaic of different ages and types of vegetation.

Consultation record

The external consultation for the Dymock Forest Plan was open for five weeks in June / July 2023. Posters were put up at the entrances to the woods, directing people to an online survey. The majority of the 35 respondents to the survey describe themselves as forest users and neighbours, but there were also comments from Natural England, Gloucestershire Wildlife Trust (GWT), a few volunteers and some of the supporters of DyFRA - Dymock Forest Rural Action.

Respondents scored functions of the forest plan in terms of importance to them / their organisation. Biodiversity, climate change and forest protection were the deemed to be the most significant, all with over 90% of people scoring them as 'important' or 'very important'.

97% of respondents said that the forest plan addresses their needs and interests (or those of their organisation) 'very well', 'well' or 'ok', with plenty of positive feedback:

- "Wonderful to see the wood so well looked after," and "it's very heartening to know how thoughtfully this precious, beautiful ancient woodland is being managed".
Forestry England's response:
 - Thank you - it's always good to know that people appreciate our hard work!
- "Very thorough woodland management plan... many aspects considered with clear objectives" (comment from Natural England), and "the plan is clear, well-designed and gives all the key information required".
Forestry England's response:
 - Thanks again. A great deal of time has been spent trying to balance the functions of the woodlands, so that they deliver for people, nature and, where appropriate, economy, now and into the future.

Some respondents expressed concern about overnight parking, flytipping and motorbikes.

Forestry England's response:

- We are aware of occasional issues of antisocial behaviour and are happy to put up temporary signs in the worst affected areas to try to discourage this. Please do get in touch to report issues so that we know where notices should be placed.

Some people asked questions about the weed in the lake, and made valid comments about the potential for watercourses to have a role in natural flood management.

Forestry England's response:

- We removed invasive weed from the lake in 2018, which was quite a complex and potentially damaging operation, so we will keep a close eye on the situation, but won't undertake this again unless absolutely necessary.
- Regarding our treatment of watercourses, we will gradually clear mature trees from the banks, to encourage regeneration of riparian species such as willow. We will leave woody debris in streams (where it is safe and appropriate to do so) to slow the flow and to encourage the development of wet woodland. This has already been done in the Orchid Reserve.

GWT and DyFRA highlighted the need for connectivity in the landscape, asking whether we could promote a land acquisition policy to join up fragments of woodland in the area.

Forestry England's response:

- While we wholly recognise the importance of connectivity in the landscape, we are limited in what we can do to influence planting of trees or hedges or other wildlife corridors to connect pieces of land that we do not own or manage. However, we are happy to consider collaborations if we are approached with proposals for landscape-scale projects.

Other less common questions and comments have been answered individually where an email address was provided.



Forestry England

Dymock Woods SSSI Management Plan

2023-2033

Rachel Giles
Summer 2023

Edited Feb24 for NE
approval - edits shown
in purple - pages 6&7



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About this plan

Although the previously approved SSSI management plan for Dymock Woods (2019-2024) has not yet expired, it makes sense to agree a refreshed version now, so that its time frame is the same as that of the Forest Plan ie 2023-2033. Most of the objectives and actions will be carried through from the 2019 plan, with the main change being that Unit 3 - Betty Daw's Wood - is no longer being managed by Gloucestershire Wildlife Trust, so the objectives and actions for that area are now incorporated into this plan.

Agreement and consent

Forest district	West England Forest District
Woodland or property name	Dymock Woods SSSI
Nearest town, village or locality	Newent, Gloucestershire
OS grid reference	Centre of SSSI unit 1 is at SO 6915 2895 Centre of SSSI unit 2 is at SO 6844 2881 Centre of SSSI unit 3 is at SO 6966 2833
Period of plan	2023-2033

Kevin Stannard
Forest Management Director
West England Forest District

Date

Natural England

Date

The signing of this plan by Natural England gives the necessary consent under Section 28 (6) of the Wildlife and Countryside Act (1981), as amended, for the management prescriptions detailed in this plan to be undertaken without necessity to consult prior to each operation during the plan.

Forestry England will keep a written record of work carried out during the period of this plan.

SSSI Notification

Notification Date: 14 May 1990

COUNTY: GLOUCESTERSHIRE

SITE NAME: DYMOCK WOODS

DISTRICT: FOREST OF DEAN

SITE REF: 15 WYT

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 as amended

Local Planning Authority: GLOUCESTERSHIRE COUNTY COUNCIL, Forest of Dean District Council

National Grid Reference: SO 684288, Area: 53.0 (ha.) 131.0 (ac.) SO 692290, SO 697283

Ordnance Survey Sheet 1:50,000: 149 1:10,000: SO 62 NE

Date Notified (Under 1949 Act): - Date of Last Revision: -

Date Notified (Under 1981 Act): 1990 Date of Last Revision: -

Other Information: New site. Part held as a nature reserve by the Gloucestershire Trust for Nature Conservation.

Description and Reasons for Notification:

Dymock Woods Site of Special Scientific Interest is situated a few miles south-west of Dymock in north-west Gloucestershire. The site contains the best areas of mature sessile oak *Quercus petraea* plantation that remain in the larger area of woodland known as Dymock Forest. These plantations, which are on an ancient woodland site, have developed a high forest structure and show much of the character of semi-natural woodland. The site is important as a good example of sessile oak dominated woodland over both acidic and calcareous soils. Dymock Forest is also important for invertebrates, particularly moths and butterflies *Lepidoptera*.

Dymock Woods lie on freely draining acidic soils derived from Old Red Sandstone. Where streams occur they cut through the Old Red Sandstone to the underlying base-rich Silurian rocks. This gives rise to an acidic flora over most of the site with species characteristic of base-rich soils along the streams.

In the acidic areas the woodland is dominated by sessile oak with frequent silver birch *Betula pendula* and wild cherry *Prunus avium*. Wild service-tree *Sorbus torminalis* is scattered throughout the site. The understorey is dominated by hazel *Corylus avellana* with hawthorn *Crataegus monogyna* and holly *Ilex aquifolium*. The woodland along the streams is dominated by sessile oak and, locally, by alder *Alnus glutinosa*. Small-leaved lime *Tilia cordata* and ash *Fraxinus excelsior* are present in these areas. The understorey here is dominated by hazel and contains calcicole (lime-loving) species such as wild privet *Ligustrum vulgare* and dogwood *Cornus sanguinea*.

The ground flora is dominated by bramble *Rubus fruticosus* and bracken *Pteridium aquilinum* throughout most of the site. Many typical woodland species such as bluebell *Hyacinthoides non-scripta*, wood anemone *Anemone nemorosa* and yellow archangel *Lamiastrum galeobdolon* occur together with calcifuge (lime-hating) species such as heather *Calluna vulgaris*, bilberry

Vaccinium myrtillus and common cow-wheat *Melampyrum pratense*. The ground flora along the streams is dominated by dog's mercury *Mercurialis perennis* with species such as woodruff *Galium odoratum* and sanicle *Sanicula europaea*. Wild daffodil *Narcissus pseudonarcissus*, which carpets the woodland floor in early spring, is a particular feature of Dymock Woods. Other locally uncommon species include bitter-vetch *Lathyrus montanus*, tutsan *Hypericum androsaemum* and lily-of-the-valley *Convallaria majalis*.

Dymock Forest is important for butterflies and moths. The nationally restricted pearl-bordered fritillary *Boloria euphrosyne* and wood white *Leptidea sinapis* occur as well as the uncommon white admiral *Ladoga camilla*. Over 400 species of moth have been recorded including 18 nationally scarce species. These include great oak beauty *Boarmia roboraria* and satin lutestring *Tetheella fluctuosa*, the larvae of which feed on oak and birch respectively. Other scarce moths are associated with particular woodland herbs. For example, bleached pug *Eupithecia expallidata*, the larvae of which feed on golden-rod *Solidago virgaurea* and drab looper *Minoa murinata* whose larvae feed on wood spurge *Euphorbia amygdaloides*.

A nest-box scheme operates in Betty Daw's Wood where pied flycatcher *Ficedula hypoleuca* and nuthatch *Sitta europaea* have bred. The uncommon dormouse *Muscardinus avalloni* has also been recorded.

List of potentially damaging operations

Ref	Type of operation	Agreed with Natural England - for the duration of the plan
2	The introduction of grazing and changes in the grazing regime (including type of stock, intensity or seasonal pattern of grazing and cessation of grazing).	No grazing planned during this plan period at Dymock.
3	The introduction of stock feeding and changes in stock feeding practice.	No stock feeding planned during this plan period at Dymock.
6	Application of pesticides, including herbicides (weedkillers).	Glyphosate may be applied to the known patch of invasive, non-native periwinkle in Unit 2 (it has been effective at clearing it up previously)
<p>Edited Feb24 for NE approval - bracken control, if needed, will be mechanical rather than chemical as NE can no longer consent to the use of chemical control of bracken on SSSIs. If we need to do mechanical control, we will apply to NE for assent at the time.</p>		
7	Dumping, spreading or discharge of any materials.	No dumping, spreading or discharge planned during this plan period at Dymock (for road grading, see 21 below).
8	Burning.	No burning planned during this plan period at Dymock.
9	The release into the site of any wild, feral or domestic animal*, plant or seed.	No release of animals planned during this plan period at Dymock.
10	The killing or removal of any wild animal*, other than pest control.	No removal of animals planned during this plan period at Dymock.
11	The destruction, displacement, removal or cutting of any plant or plant remains, including tree, shrub, herb, dead or decaying wood, moss, lichen, fungus and leafmould.	<p>Patches of birch will be coppiced once or twice in the plan period. Some ridesides will be cleared and allowed to regenerate. Oak seed stand will be assessed for readiness for thinning in 2027.</p> <p>All the above actions will be preceded by consultation with the ecologist.</p>
12	Changes in tree and/or woodland management, including afforestation, planting, clear and selective felling, thinning, coppicing, modification of the stand or underwood, changes in species composition, cessation of management.	<p>Thinning operations and coppicing are described in 11 above. Some locally sourced oaks may be planted to supplement the 2008 planting in Unit 1. After coppicing the areas of birch in Unit 1, we intend to plant small numbers of additional native species eg hazel, guelder rose and alder buckthorn in order to reduce the dominance of the birch regeneration.</p>

Ref	Type of operation	Agreed with Natural England - for the duration of the plan
13b	Modification of the structure of watercourses (eg streams or ditches), including their banks and beds, as by re-alignment, re-grading and dredging.	No deliberate modifications of watercourses, but if trees fall into the stream in Unit 1, they will be left where they fall.
14	The changing of water levels and tables and water utilisation (including irrigation, storage and abstraction from existing water bodies and through boreholes).	No changing of water levels planned during this plan period at Dymock.
20	Extraction of minerals, including topsoil and subsoil.	No extraction of minerals planned during this plan period at Dymock.
21	Construction, removal or destruction of roads, tracks, walls, fences, hardstands, banks, ditches or other earthworks, or the laying, maintenance or removal of pipelines and cables, above or below ground.	Edited Feb24 for NE approval - if we need to restore the track in Unit 2 following forest ops, we will consider whether the works might impact on the SSSI notified features and, if so, will apply to NE for additional assent.
22	Storage of materials.	No storage of materials planned for this plan period at Dymock.
23	Erection of permanent or temporary structures, or the undertaking of engineering works, including drilling.	No erection of structures or engineering works planned during this plan period at Dymock - apart from road grading - see 21 above.
26	Use of vehicles or craft likely to damage or disturb features of interest.	Machines to be used for thinning, coppicing and rideside management may include harvester, forwarder and tractor. Operations will be preceded by a consultation process which will involve the ecologist, and will minimise ground damage by being implemented at an appropriate scale and time of year.
27	Recreational or other activities likely to damage woodland habitat.	No expansion or development of recreational activities planned for this plan period at Dymock.
28	Introduction of game management and changes in game management and hunting practice.	No game management planned for this plan period at Dymock.
* 'animal' includes any mammal, reptile, amphibian, bird, fish or invertebrate.		

For any operations not in this list or in the Action Plan, we will contact Natural England for consent at the time.

Location and ownership

Dymock Woods SSSI is located in the northwest corner of Gloucestershire, approximately 2.5 miles northeast of Newent (Figure 1). It sits on the eastern edge of a much larger area of woodland owned and managed by Forestry England. The SSSI is divided into three units (Figure 2).

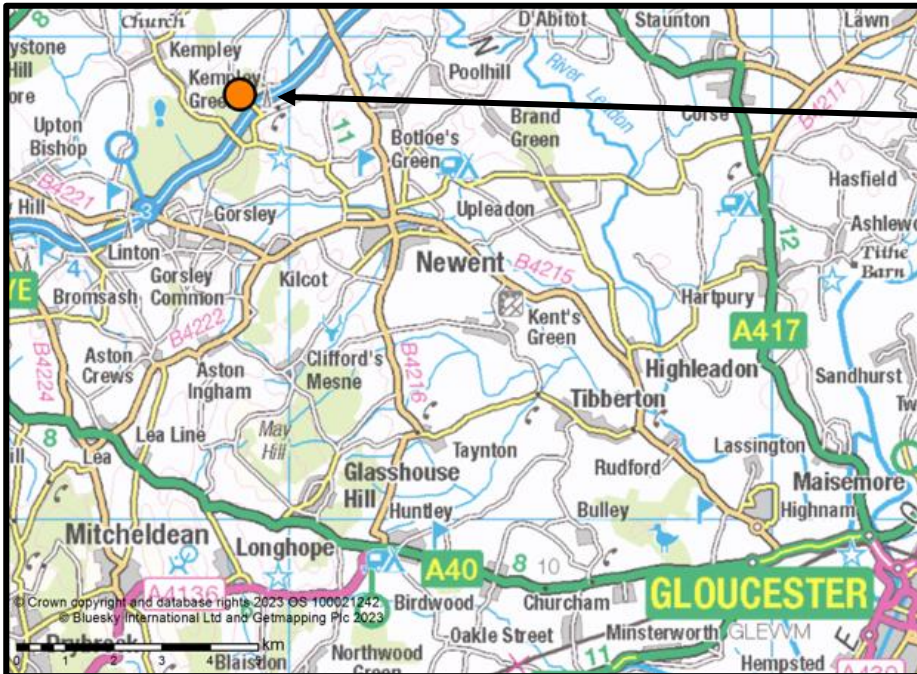
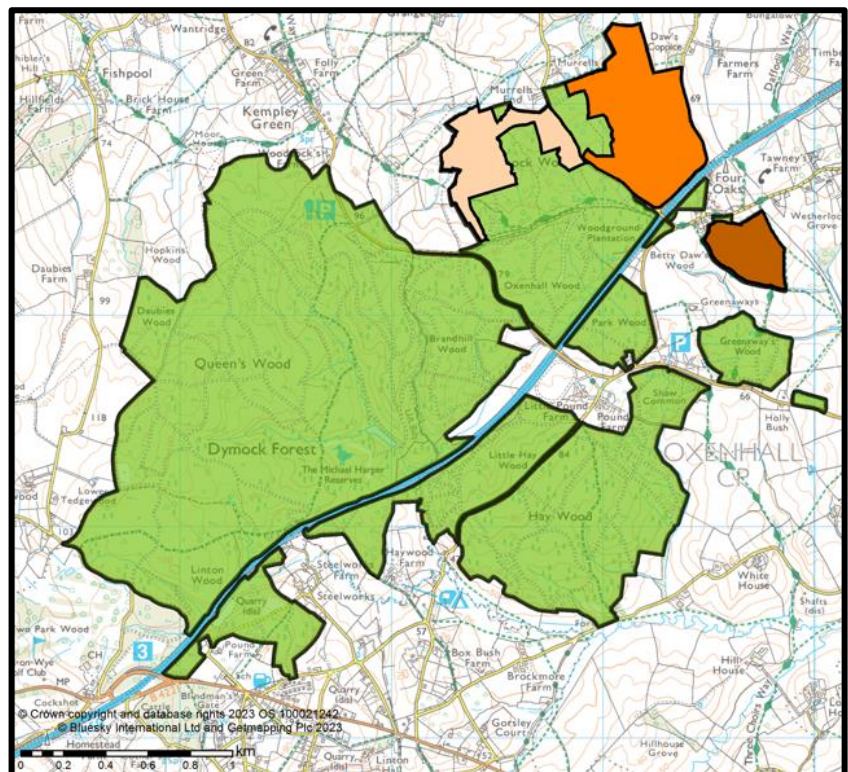


Figure 1
Location of Dymock Woods SSSI

Figure 2
The SSSI units are within the eastern edge of Forestry England’s Dymock Woods



Work carried out in SSSI since previous plan was written (2019)

Considering the fact that the SSSI plan is only four years old, a substantial amount of the proposed work has been carried out:

- Patches of conifers were felled in an earlier SSSI plan period. These were partially planted with sessile oak, and the gaps have regenerated mainly with birch, which has been coppiced periodically. Temporary fencing and brash fencing **photo (top right)** is used to protect the coppice regrowth, although deer damage is an ongoing major problem.
- A “deadwood creation zone” was mapped and several large trees have been felled and left as fallen deadwood - see **photo (centre right)**.
- The area of periwinkle in Unit 2 was sprayed effectively with Roundup in 2021.
- Non-native conifer regeneration adjacent to the stream in Unit 1 has been removed.
- Vegetation on rides and track junctions has been cut periodically and most rides are well structured.
- Bat and bird boxes have been attached to several trees to identify them as ones which will be retained as future veterans. These trees have been mapped on the conservation layer of Forester Web (GIS).
- Vegetation has been cleared from around the pond - see **photo (below right)**.
- Bird and dormouse boxes in Betty Daw’s Wood have been monitored by volunteers.



The one action from the previous plan that has not been implemented yet is the proposed enrichment planting under oak stands and in gaps, because it needs more careful consideration as to how the new planting would be protected from deer / squirrels.

SSSI objectives 2023-33

All three SSSI units were recorded as unfavourable-recovering in 2013 (due to “*lack of age structure, lack of veteran trees and scarce deadwood; limited open space; management activities planned but not implemented*”), so the overall aim of management is:

to restore the native broadleaved woodland habitats and associated flora and fauna of the SSSI to favourable condition

with more specific objectives:

- Protect and restore native woodland habitats and species
- Increase structural diversity
- Identify and protect future veteran trees
- Increase deadwood
- Provide temporary open space through coppicing and rideside management
- Ensure that management objectives are regularly monitored

The actions that will deliver these objectives are listed in the table below.

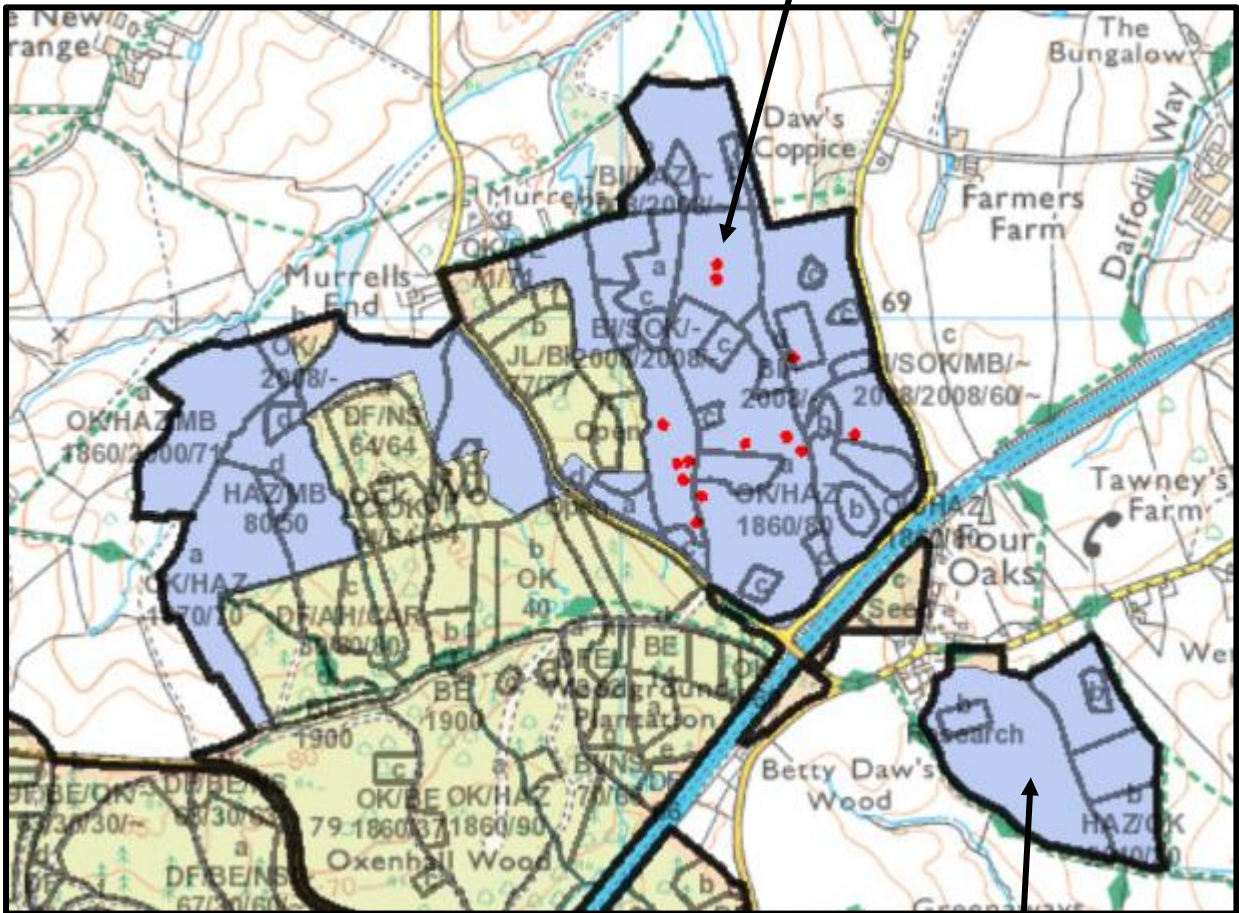
Dymock Woods SSSI Action Plan Actions - what we will do (2023-33) See also SSSI Management Maps on pages 12-16	Objectives - what we hope to achieve					Monitoring - how we will measure success **note that some of these are long-term goals - possibly not evidenced in this Forest Plan period
	Protect and restore native woodland habitats and species	Increase structural diversity	Identify and protect future veteran trees	Increase deadwood	Increase open space	
Thinning <ul style="list-style-type: none"> The oak stands will be assessed for readiness for thinning in 2027 Thinning will favour the trees with the best timber potential AND those with future veteran / biodiversity potential Crownwood will be left to add to the dead and decaying wood resource A few trees (agreed between ecologist and forester) will be “pulled over” and left, creating the jagged deadwood preferred by beetles and other invertebrates (Management Map 5) In future plan periods, small groups of trees will be felled to create gaps for natural regeneration and planting (this is unlikely to be appropriate in 2023-33 due to the threat of squirrel damage, and as there are already several small areas of recent (2008) planting) 	✓	✓	✓	✓	✓	<ul style="list-style-type: none"> Have oaks been thinned to favour trees for timber and biodiversity? Has deadwood resource been increased? **Have gaps been created in oak canopy? **
Coppicing (Management Maps 2 and 3) <ul style="list-style-type: none"> Coppice - areas of birch in Unit 1 will be coppiced to provide material for horse jumps Coppice-with-standards - two areas of hazel in Unit 2, and a strip on the eastern edge of Unit 3 will be coppiced in the second half of the plan period - ideally by a contractor who can make use of the produce Minor species such as small leaved lime and wild service will be retained as future standards Dormouse best practice protocol will be followed with regard to scale and timings, and coppicing should ideally take place before the bird nesting season, OR be preceded by a good walk-through by the ecologist to check for nesting birds Coppice regrowth must be protected from deer (including muntjac) with temporary or semi-permanent fencing / brush piles 	✓	✓		✓	✓	<ul style="list-style-type: none"> Has coppicing been carried out as per Management Maps 2 and 3? Are minor species retained? Are dormice considered appropriately? Is coppice being adequately protected from deer damage?
Control of invasive, non-native species <ul style="list-style-type: none"> Periwinkle will be monitored and treated with herbicide if needed (Management Map 5) Non-native conifer regeneration will be monitored and removed before it becomes established 	✓					<ul style="list-style-type: none"> Are invasive, non-native species being controlled effectively?
Rideside vegetation management <ul style="list-style-type: none"> Ridesides and the box junction will be worked in sections as per SSSI Management Maps 4 and 5 Three zone system* as described in Butterfly Conservation Guidance will be used Dormouse crossover points will be provided When planning work, dormice, flora (especially later flowering species such as devil’s bit scabious) and weather / ground conditions will be considered 	✓	✓			✓	<ul style="list-style-type: none"> Have ridesides been worked as per Management Maps 4 and 5 and on a three zone system? Has work been carried out with due consideration of dormice, flora and conditions?
Identification and protection of future veteran trees <ul style="list-style-type: none"> Around 5 oaks per hectare will be marked with tags and / or nestboxes so that they are identified and protected during forest operations (Management Map 1) These future veterans will be marked on the conservation layer of our GIS system 			✓			<ul style="list-style-type: none"> Have enough future veterans been marked and mapped on the database?
Enrichment planting <ul style="list-style-type: none"> The 2008 oaks will be assessed and additional trees planted if needed Tree tubes from 2008 will be removed 	✓	✓				<ul style="list-style-type: none"> Have unsuccessful trees been supplemented with planting and redundant tubes removed?
Species monitoring <ul style="list-style-type: none"> Nestboxes and species will be monitored across the SSSI (mostly by volunteers) Data will be recorded on our Sharepoint site for future reference 	✓					<ul style="list-style-type: none"> Have nestboxes and species been monitored by volunteers and data recorded for future reference?

*zone 1 - closest to the ride centre is cut once or twice a year to facilitate access; zone 2 - the next 2-5m to the side of zone 1 is cut in sections on 3-4 year rotation; zone 3 - 5-10m strip between zone 2 and the woodland is managed as coppice on 8-20 year rotation

SSSI Management Map 1 - veteran trees marked with bat and bird boxes

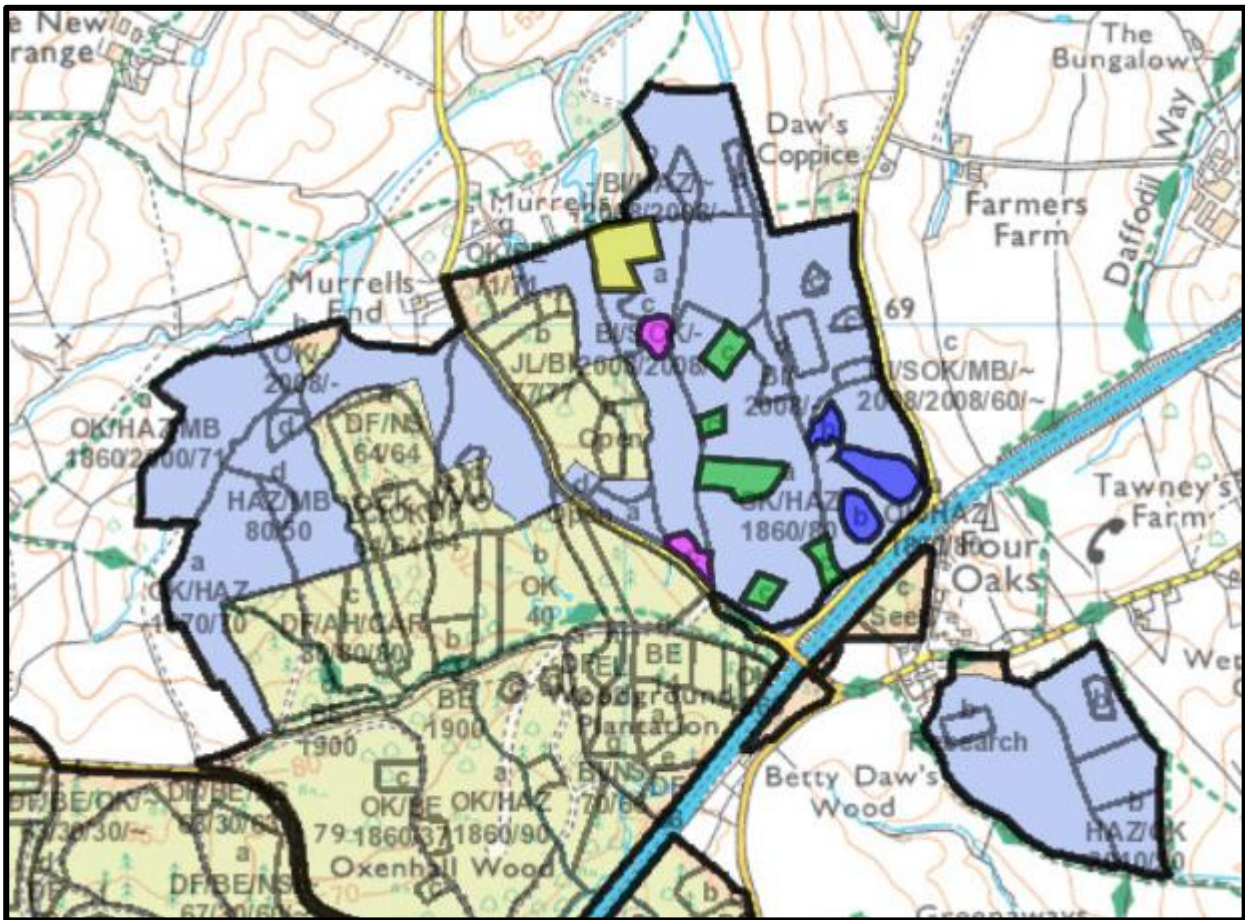
Additional bat / bird boxes will be attached to more future veterans in Units 1 and 2 over the next few years

Red spots are the location of bat / bird boxes marking future veteran trees in Unit 1



Approximately 40 bird boxes in Unit 3 are part of a long-term monitoring scheme, and do not necessarily mark future veteran trees

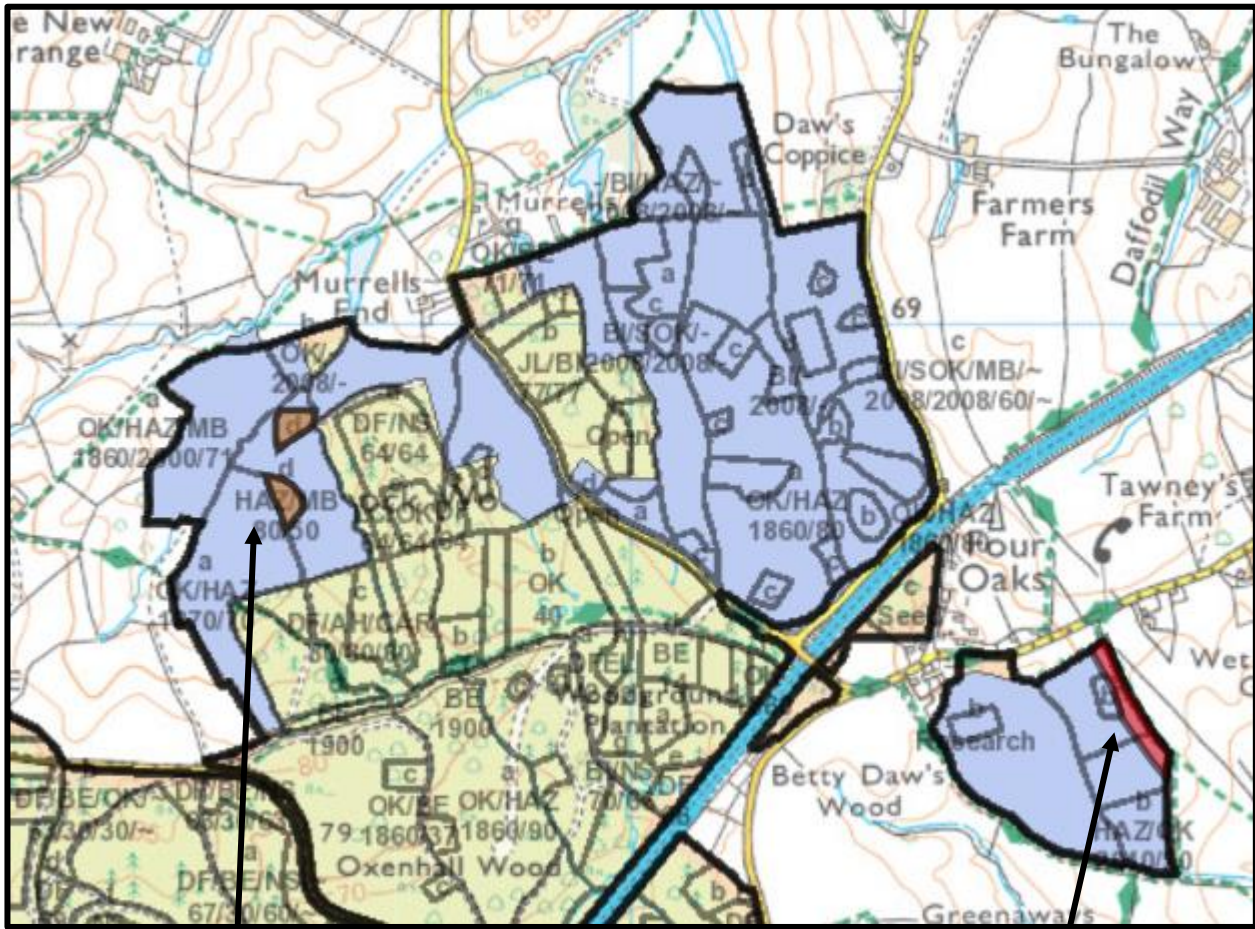
SSSI Management Map 2 - birch coppicing in Unit 1



Birch coppice coupes in Unit 1 will ideally be cut every 3 to 5 years; after cutting, small numbers of new trees (eg hazel, guelder rose, alder buckthorn) should be planted to increase species diversity

- Green coupe - 1.56ha - will be cut in 2023 and 2027
- Blue coupe - 1.24ha - will be cut in 2024 and 2028
- Pink coupe - 0.5ha - will be cut in 2025 and 2029
- Yellow coupe - 0.9ha - will be cut 2026 and 2030

SSSI Management Map 3 - hazel and other broadleaf coppicing in Units 2 and 3



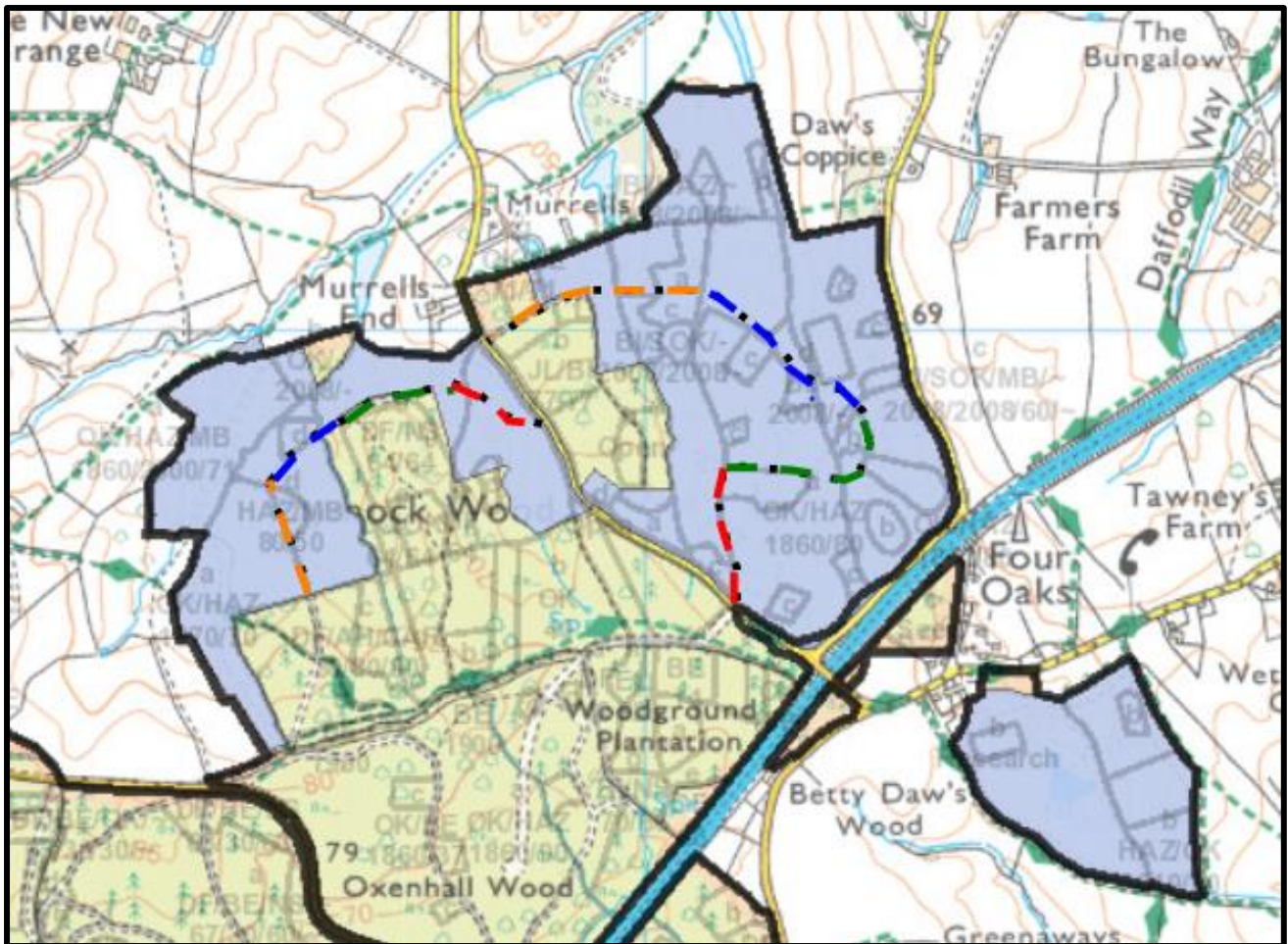
Hazel coppice coupe - two small areas totalling 0.53ha - in Unit 2 (brown) will be cut in the second half of the plan period - 2029-2032 depending on contractor availability and size / marketability of product

Coppice coupe - 0.5ha - of hazel and other broadleaves in Unit 3 (red) will be cut in the first half of the plan period - 2023-2028

Depending on contractor availability and budget for fencing this may be cut in several small coupes, or as one

Further coppicing may be carried out in Unit 3 if budget for fencing becomes available

SSSI Management Map 4 - rideside management



The central area of the main rides will be mown annually

In addition, the vegetation between the mown area and the forest behind will be coppiced on a 4 year rotation working towards the three zone system described above in the action plan

Approximately 250-300 metres of rideside in Unit 1 and 150-200 metres in Unit 2 will be worked in this way each year:

- Red sections - 2023 and 2027
- Blue sections - 2024 and 2028
- Green sections - 2025 and 2029
- Orange sections - 2026 and 2030

Note that timing of rideside management will need to be adaptive and reactive to weather and site conditions - it also needs to be done at a time of year when ground flora will not be damaged, and should only be carried out with the ecologist's approval

SSSI Management Map 5 - other management

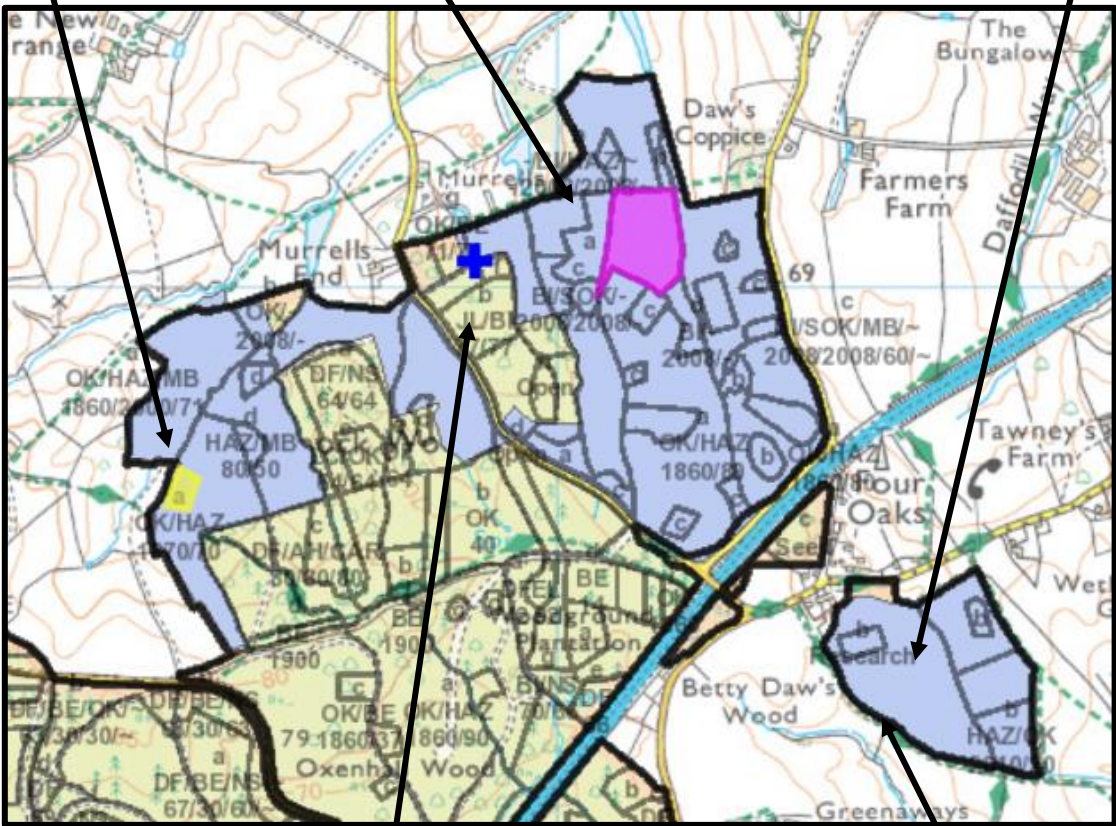
The yellow area is where the non-native periwinkle may require further treatment

The pink area is the deadwood creation zone where more trees will be felled / pulled over to create a valuable deadwood resource

Most of Unit 3 (Betty Daw's Wood) will be managed with a very light touch, to benefit species which thrive under low levels of disturbance

The oaks may be thinned if the time is right to develop the crowns of selected trees towards species maturity

Further coppicing may be carried out if budget for deer fencing becomes available; without it, deer numbers are too high to make coppicing viable on a larger scale



The blue cross is the box junction which is being managed on a four year rotation, with one corner being coppiced every year

- Red - 2023, 2027
- Blue - 2024, 2028
- Green - 2025, 2029
- Orange - 2026, 2030



There is a research plot in Unit 3 and one in Unit 1 - these will be managed in the same way as the surrounding woodland unless we are advised otherwise by our colleagues in Forest Research

SSSI work plan 2023-2033

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Consider thinning the oaks					✓					
Create more deadwood	✓	✓	✓	✓						
Birch coppicing in Unit 1 as per Management Map 2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Coppicing on eastern edge of Unit 3					✓					
Coppicing two areas in Unit 2								✓		
Monitor the spread of periwinkle and treat with herbicide if needed	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rideside coppicing as per Management Map 4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Box junction coppicing in Unit 1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Identify more future veteran trees in Unit 1; put bird / bat boxes onto them	✓	✓								
Assess success of 2008 oak planting and add more if needed	✓	✓								
Monitor bird / bat boxes in Units 1 and 3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Dymock Forest

Michael Harper Reserves Management Plan

Summer 2023



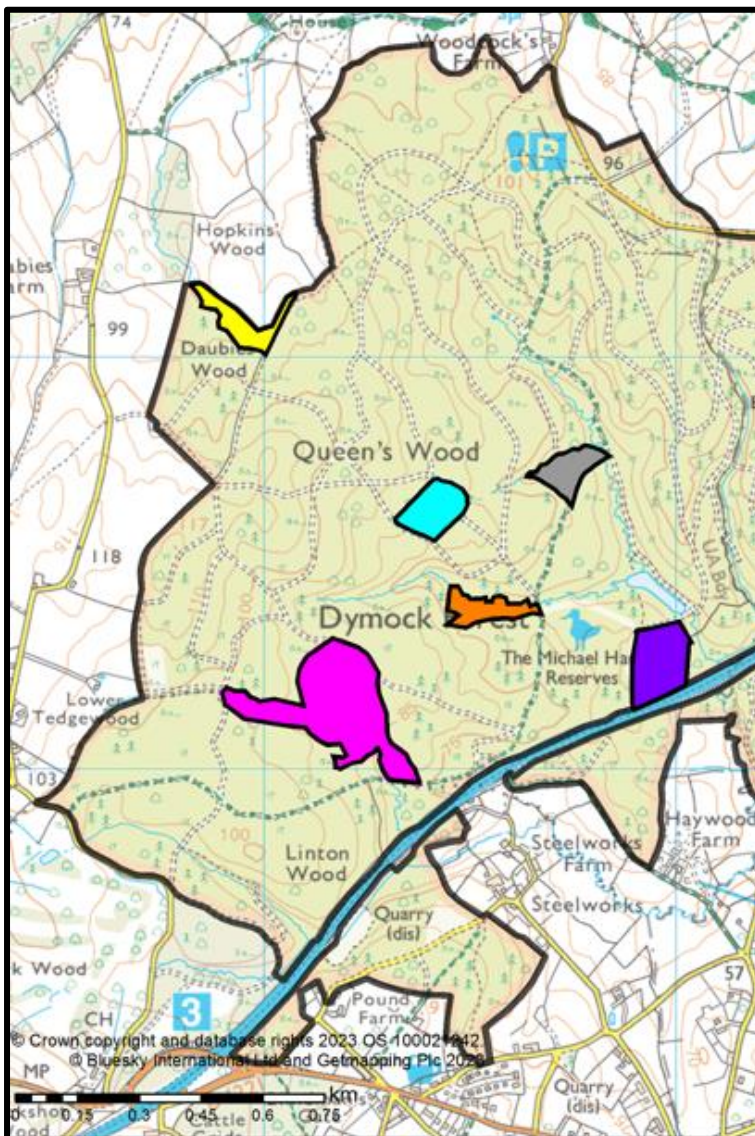
About this plan







This document is an appendix to the Dymock Forest Plan (2023-33) and outlines the management intentions for the Michael Harper Reserves for the next 10 years or more.

Objectives

- The Michael Harper Reserves will continue to be managed by volunteers from the Ledbury Naturalists, under the guidance of the Forestry England Assistant Ecologist.
- The reserves will continue to provide biodiverse areas of valuable wildlife habitat within a working forest.
- Actions will be taken (by the Forestry England beat team) to improve connectivity between the reserves with corridors or patches of similar habitat, creating an extensive area for biodiversity in the centre of Queen's Wood.

Map of the Michael Harper Reserves



	Ragged Robin Reserve
	Alder Buckthorn Reserve
	Tulip Tree Reserve
	Orchid Reserve
	Fiveways Reserve
	Motorway Reserve

Background

The reserves were identified by local entomologist, Dr Michael Harper, in the 1960s as habitats of importance for Lepidoptera (moths and butterflies) and, at that time, were just small remnants of coppice, fen and heathland within a productive broadleaved, and recently partly coniferised, woodland. In agreement with the Forestry Commission, Dr Harper began to keep records of the Lepidoptera present and, along with members of the Ledbury Naturalists Field Club, undertook small scale coppicing and clearing.

Today these reserves are still managed, predominantly by volunteers under Forestry England guidance, with biodiversity in mind, and are complemented by neighbouring areas of partially open / wooded heathland habitat. Monitoring continues, not just of Lepidoptera, but also of plants, birds and small mammals including dormice which thrive in the reserves and across the rest of Dymock Forest.

The reserves are generally managed by coppicing on different timescales, or rotations, which vary from 4 to 20 years between cuts, dependent on the species present. Many of the numerous butterflies and moths found in Dymock Forest are listed as local conservation priority species, and some depend on a single plant species for their survival ([see box to the right](#)), so maintaining floral diversity is essential.

Actions applicable to all of the reserves

1. Eco-heaps ([see photo below](#)) - these were initially designed by Dr Harper as a way to stack coppiced wood, while providing a variety of micro-habitats with different temperatures and moisture levels. In the longer-term, eco-heaps are important for species which depend on dead and decaying wood.
2. Dormice are present in all of the reserves and the wider woodland and must be considered when planning any operational work.



Images - top to bottom

- Brimstone caterpillar feeding on alder buckthorn
- Wood spurge - food for the drab looper moth caterpillar
- Lead coloured pug moth, which depends on cow-wheat



3. Coppicing is the main management intervention, but must not take place unless followed by suitable protection from deer, ideally semi-permanent wire deer fencing. Cheaper (but less effective) alternatives, which can be put up by volunteers, are brash fencing or plastic deer fencing.

Ragged Robin Reserve

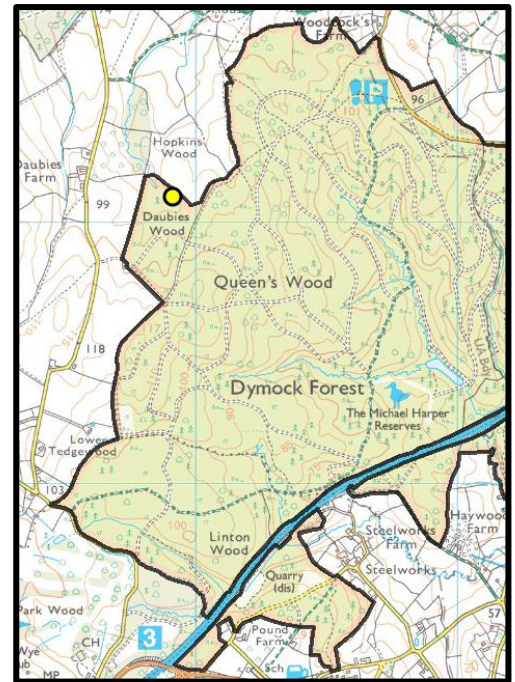
- 1.25 hectares
- Broadleaved woodland with a small stream - birch, willow and ash coppice with oak standards and wild service
- Provides nice woodland edge to neighbouring farmland
- Flora includes ragged robin and wild daffodils
- Fauna includes honeysuckle bell moth, dormouse and badger

Work to be carried out by volunteers:

- Coppice on a rotation of approximately 20 years (4 coupes - one to be cut every 5 years)
- Keep area clear where ragged robin grows
- Remove any conifers that are casting shade

Work to be carried out by Forestry England beat team:

- Identify opportunities to connect the Ragged Robin Reserve to the central reserves through rideside management

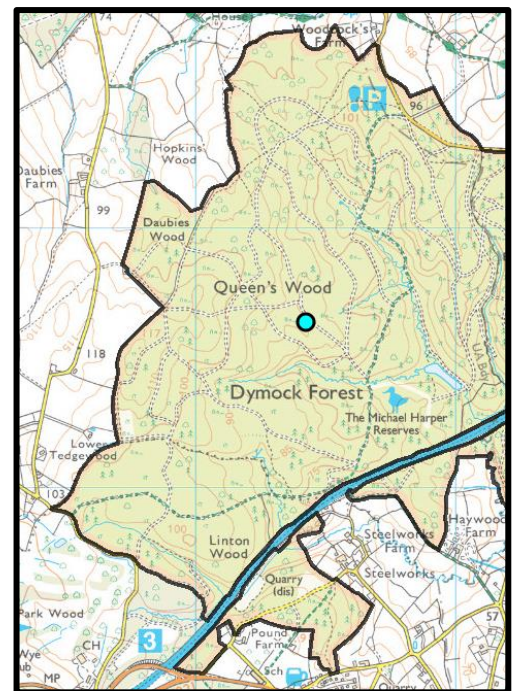


Alder Buckthorn Reserve

- 1.55 hectares
- Coppiced woodland with many broadleaf species, including birch, alder buckthorn, wild service, small leaved lime and oak
- Flora includes herb paris, wood anemone, hemp agrimony, wild daffodils and bilberry
- Fauna includes beautiful snout moth, drab looper moth, brimstone butterfly, glow-worm and dormouse
- There are dormouse and bat boxes in the reserve and the surrounding woodland

Work to be carried out by volunteers:

- Manage as short rotation coppice (7-10 years)
- Propose to coppice eastern section first and then install 250m of deer fencing if budget allows
- Maintain the path as open habitat

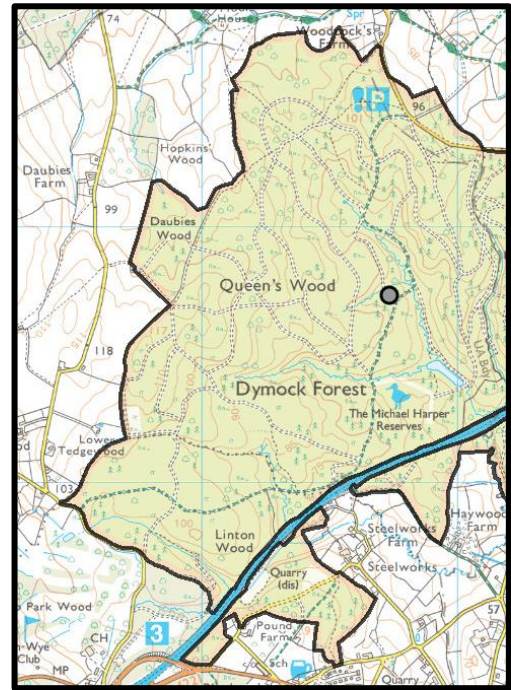


Tulip Tree Reserve

- 1.20 hectares
- Part fen, part coppice, including sweet chestnut, hazel, birch and blackthorn; two tulip trees remain from a previously larger group from a historical planting trial
- Flora includes wild daffodils and the rare narrow buckler fern
- Fauna includes drab looper moth and white-line snout moth, dormouse and glow-worm

Work to be carried out by volunteers:

- Manage as coppice with standards on a short rotation of 7 to 10 years
- Retain the tulip trees until their natural end

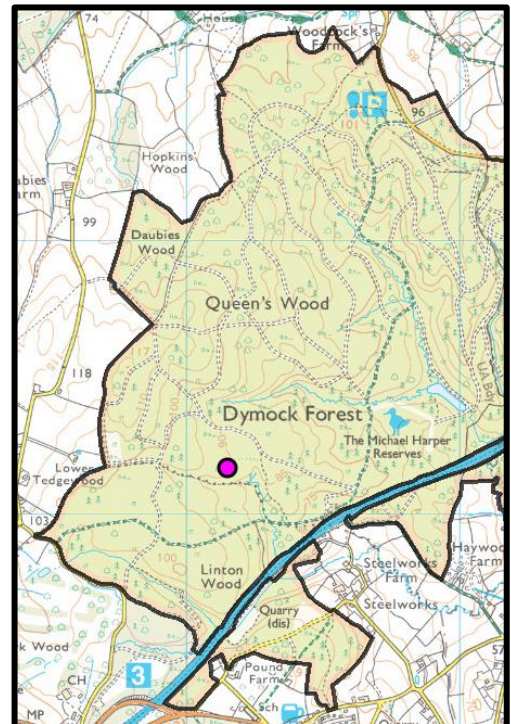


Orchid Reserve

- 6.44 hectares
- Two small streams and a pond; marsh with limestone feeders; fen with tufa; coppice and open glades; and heathland vegetation
- Trees include young alder, birch and alder buckthorn
- Flora includes bog pimpernel, marsh helleborine, fragrant and common spotted orchids, goldenrod, wild privet, heather, bilberry and the rare fen cotton grass
- Fauna includes dormouse and several uncommon moths, such as the white-barred clearwing

Work to be carried out by volunteers:

- Maintain tufa, fen, devil's-bit scabious ride and area around ponds as open space
- Coppice either side of fen on a very short rotation (4 years) being aware of clearwing larvae
- Clear some regenerated trees from heathland periodically, maintaining a lightly wooded heath
- Maintain and create dams along watercourse to retain damp conditions in tufa and fen



Work to be carried out by Forestry England beat team:

- Gradually clear conifers shading reserve on southern edge

Five Ways Reserve

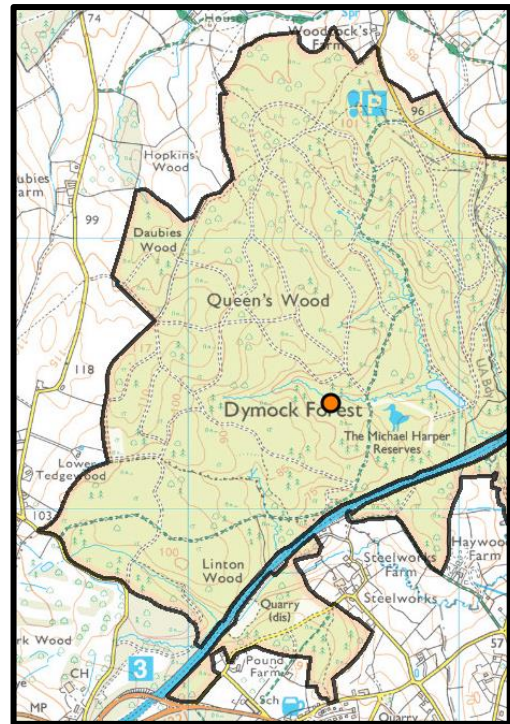
- 1.12 hectares
- Two areas of alder and birch with alder buckthorn coppice, with a block of Norway spruce between these broadleaf areas
- Adjacent to a small stream
- Flora includes wild daffodils and primroses
- Fauna includes brindled white-spot moth, common clubtail dragonfly, dormouse, glow worms and occasionally wood white butterfly along the forest ride

Work to be carried out by volunteers:

- Manage as coppice with standards on a rotation of approximately 20 years (divide into 4 coupes; cut one every 5 years)
- Keep the first part of the ride from Fiveways towards the Alder Buckthorn Reserve open to benefit the lily of the valley

Work to be carried out by Forestry England beat team:

- Remove Norway spruce and encourage broadleaf regeneration

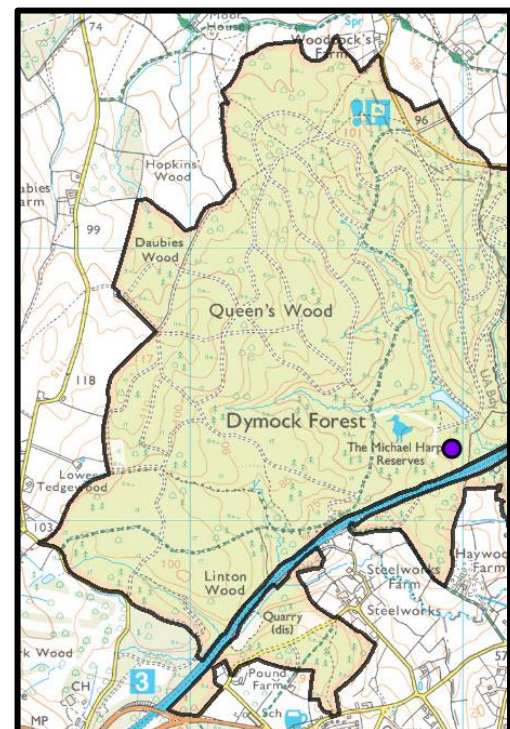


Motorway Reserve

- 2.27 hectares
- Broadleaf coppice with standards - trees include birch, oak, hazel, alder, willow, aspen, wild service, guelder rose, alder buckthorn and small-leaved lime
- Flora includes wild daffodils, devil's-bit scabious, common spotted orchid and heather in the drier areas
- Fauna includes orange moth, dormouse and glow worms

Work to be carried out by volunteers:

- Manage as short-medium rotation (7-20 years) coppice with standards - coppicing a small coupe every 2-3 years
- Encourage heather where present
- Propose to coppice substantial area in next few years and install 380m of deer fencing if budget allows
- Maintain the ride with devil's-bit scabious as open space and remove shading crop trees



Connecting the reserves

The map below shows some of the work that will be carried out by the Forestry England beat team over the coming decades to develop the habitat between the reserves.

More detail is provided in the Dymock Forest Plan (2023-33).

