OUR SHARED FOREST

Forest of Dean Land Management Plan

Published June 2019

Forestry England

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Photos courtesy of:

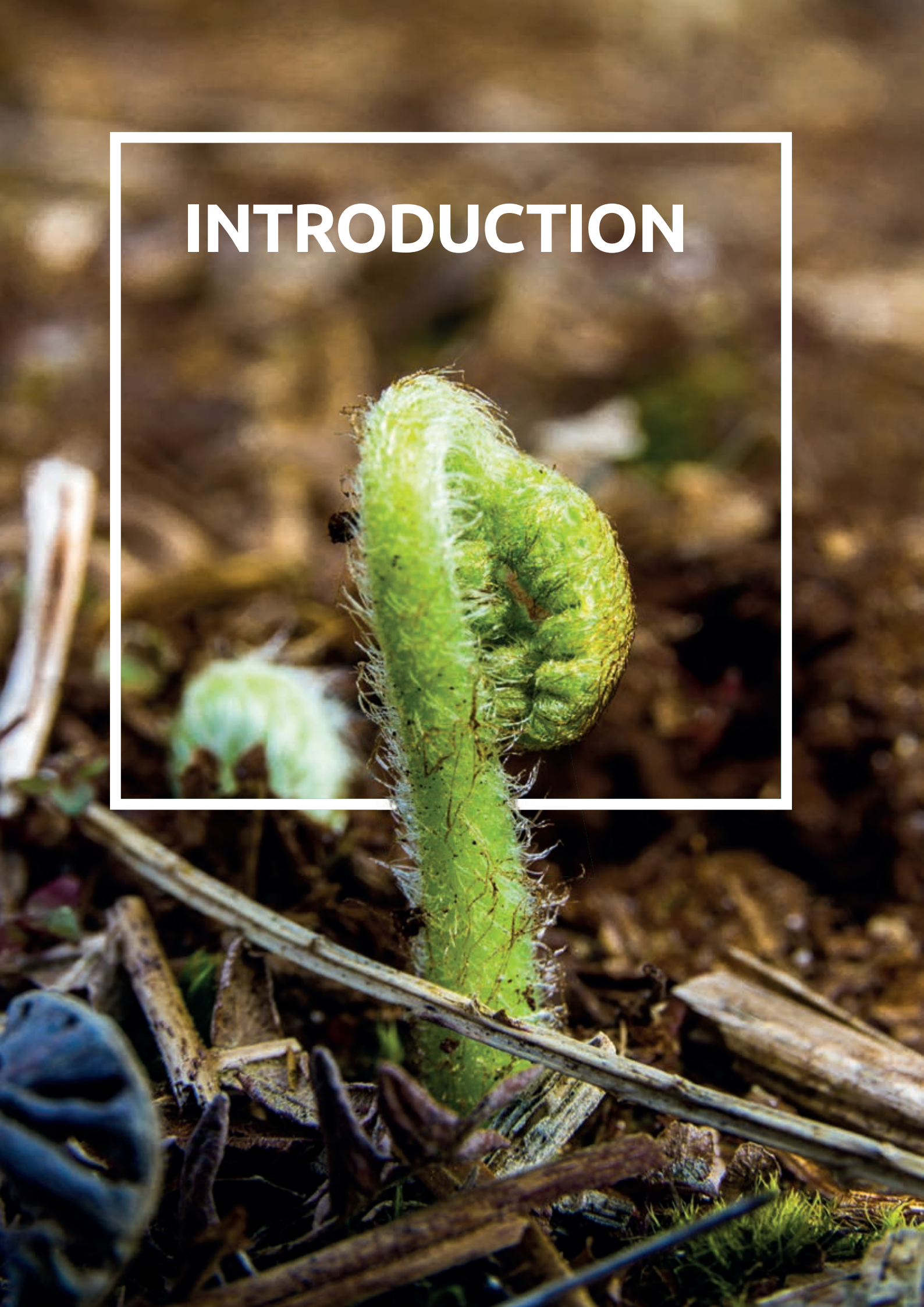
The Wye Valley and Forest of Dean Tourism – www.wyedeantourism.co.uk

OUR VISION

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.

INTRODUCTION



OUR PAST AND PRESENT

> ***"Th'varest is ower wum which is weshed by them there rivers and vur zum time the varester allus kips izzelf to izzelf. Varum th stwuns, oods and 'ills of these yer varest the varester byunt afeared of workin vur therzelves. We bin proud to zarve our varest land which is zo zed part of thic country of long eared uns, we byunt welsh either, we be varesters."***
>
> **Forest Dialect - Derek Yemm**

The Forest of Dean is a historic forest with its origins as a royal forest pre-dating the Norman Conquest of 1066. The Forest has been historically isolated and bypassed, sitting as it does between the Rivers Severn and Wye, on the border of England and Wales.

The Forest has long been used for its timber as well as its rich mineral resources of iron ore, sandstone and coal. While the industrial nature of the Forest was at its height during the late 19th and early 20th Century, quarrying of stone and timber production are still important aspects of the local economy today. The Forest is scattered with a rich legacy of built heritage, ranging from scheduled monument remains of iron works and furnaces through to hundreds of mine entry points and miles of disused tramways and railways.

The Forest was the first National Forest Park, designated in 1938. Tourism has slowly developed, but has only recently become economically important for the area, with significant growth in employment in the cycling and overnight accommodation sectors.

The Forest is also a stronghold for nature, with large areas of woodland and open space providing a mosaic of habitats for a range of species. Of particular note are the colonies of Greater and Lesser Horseshoe Bats, the largest colonies of these bats in Europe. The Forest is also well known for its woodland and heathland birds and invertebrates. However, the richness of these habitats has been in decline as the open spaces in the Forest have become less, and the scrub has taken over following the steady decline in sheep grazing.

Commoning of sheep is one of the long-standing cultural traditions in the Forest that is in danger of collapse in the modern era due to a lack of people taking up the tradition. Freemining is another tradition unique to the Forest, and although there are several active mines it is still at risk going forward.

The Foresters' Forest programme

The Forest is much loved and cherished by the Foresters and the local community, but what is important about the Forest is not well understood, nor its historic roots valued and this was a driving force behind a five year National Lottery Heritage Fund Landscape Partnership Programme for the Forest of Dean which started in 2017.

Foresters' Forest is a community-led programme of 38 different projects delivering activity in support of our built, natural and cultural heritage.

While Foresters' Forest is hosted and fully supported by Forestry England, its scope is much wider than land management and the public forest estate.

However, we are committed to taking the learning from Foresters' Forest and embedding it, where appropriate, in Our Shared Forest. In that respect, Our Shared Forest will be very much part of the Foresters' Forest enduring legacy.

THE FUTURE

The Forest has a scale, diversity and a continuity of management over time that supports a depth and breadth of habitats and species that is on a par with, or better than, many celebrated national nature reserves and protected landscapes.

Our Shared Forest is a project to reshape and redirect our land management – to set a new direction for the public forest estate here in the Dean.

The world is changing, it always has. The climate is changing, it always has. Society is changing, it always has. But the pace of change is speeding up, and the impacts on our Forest over the next generation of trees and people will be profound.

This land management plan 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. From this, Forestry England will create the more detailed Forest Plans that will direct the operational activity in the decades ahead.

At the heart of the plan there is an agreed vision:

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.

This vision is supported by eight 'Principles of Land Management' covering:

- **Trees and Woodlands**
- **Wildlife and Wild Spaces**
- **Geology and Soils**
- **Water**
- **Cultural Heritage**
- **Built Heritage and Archaeology**
- **Community**
- **Recreation**

Each of these principles of land management sets out the important characteristics of 'where are we now? ' identifies the key targets for the future, 'where do we want to get to', and then sets out key commitments for 'what we are going to do'.

There are also a number of key national principles and strategies which have helped set the context:

- Principles of the European Landscape Convention regarding local culture, quality of life, social well-being and transformation of landscapes.
- Sir John Lawton's 'Making Space for Nature' report recommending 'bigger, better and more joined up'.
- The DEFRA 25 Year plan which sets a plan to 'leave our environment in a better state than when we found it'.
- Forest Enterprise England's strategy to 'connect everyone everywhere with the nation's forest'.
- Gloucestershire's Local Nature Partnerships recognition of the Forest of Dean as a 'Nature Improvement Area'.
- Concerns identified in the Forest of Dean and Lower Wye Valley National Character Area Profile around climate change and reduction of open space habitat.
- Forest of Dean Landscape Character Assessment.

YOUR VIEWS

In developing this land management plan we have sought views from a wide cross section of individuals and organisations that live and work within the Forest.

Consultation process:

Phase 1 (Oct 2018)

110 people took part in four Qualitative Workshops (Forestry England staff, local Councillors, Tourism Providers, Foresters' Forest project leaders and community groups to gather opinion and insight to develop the land management principles and commitments.

Phase 2 (Dec 2018)

100 people took part in four group meetings with a broader range of stakeholders to provide feedback on the results from the initial workshops and refine the ideas for the land management principles and commitments.

Phase 3 (Jan to Feb 2019)

1164 people completed a survey on the Draft Consultation Plan (the proposed land management plan vision, principles and commitments).

Phase 4 (Mar to Apr 2019)

Survey responses were analysed and amendments made to the vision and land management commitments.

A report summarising the process can be found here
www.forestryengland.uk/oursharedforest

Together we have developed an ambitious, long-term vision for the future and set out new approaches to forestry and land management in the Forest of Dean.

TREES AND WOODLANDS

WHERE ARE WE NOW?

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

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

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

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

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

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

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

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

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

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

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

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

WHERE DO WE WANT TO GET TO?

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

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

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

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

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

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

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

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

WHAT ARE WE GOING TO DO?

Our commitments:

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

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

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

4 Improve our operational planning and implementation of Forestry Standards

5 Improve our communication of forest operations

1 Increase the range and genetic diversity of our trees

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

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

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

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

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

4 Improve our operational planning and implementation of Forestry Standards

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

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

5 Improve our communication of forest operations

We will improve our communication to better advise woodland users, neighbours and other stakeholders of our operational plans during the planning, and implementation of forestry works. We will explain the purpose of the operations, whilst being open to adapt and modify plans in light of new site knowledge. We will ensure we explain the role of the planned works in delivering to our commitments.

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

WILDLIFE AND WILD SPACES

WHERE ARE WE NOW?

The Forest of Dean is of national and international importance for wildlife. The Forest is a stronghold, and even a last refuge, for individual species and the range of species that are supported through the diverse blend of differing habitats that have resulted from its geology and industrial heritage.

The Dean has never been entirely wooded. There has always been a matrix of open habitat such as heathland, grassland, unimproved pastures and wetlands that linked to the underlying geology, and topography – but also evolved and declined according to man's activities. In general terms, the more sustained and intensive man's interventions have been, the more long-lived and species-rich the open habitat has become. Broadly, this has been because, left undisturbed, those open habitats will naturally scrub up and become wooded. Much of the specialised, site-specific species of plants, animals and insects have taken advantage of habitats that are not stable, and are in transition. This results in a constant ebb and flow of nature, of wildlife moving around the wild spaces within the Forest.

Since the decimation in sheep numbers after the foot and mouth outbreak in 2001, many open habitats that had been kept open by sheep grazing have scrubbed up. Today we have arguably more trees and, correspondingly, less open space in the Forest than ever before.

Over-grazing by deer, repeated damage by boar, predation from grey squirrels, and the spread of non-native species such as Himalayan balsam, are also having long-term negative impacts on our native wildlife.

Outside the statutory Forest, agricultural intensification and development has led to widespread and permanent loss of semi-natural open habitats. Now, they only exist as isolated islands of designated or protected sites within a wider matrix of agriculturally improved land, with few opportunities to reconnect them. The net result is a reduction of natural open habitats within the wider landscape, and a reduction in site functionality due to isolation.

Wildlife conservation activity over the past decade has focused on restoring open habitat, with some 580 hectares of the public forest estate in the Forest of Dean now managed as permanent open space.

Species conservation is often the driver behind these initiatives, and projects such "Linking the Pearls" and Upper Wye Gorge SSSI management have focused on restoring small pearl bordered butterfly habitat and endemic whitebeams – species that are on the brink of local extinction and require urgent interventions to save them.

The geology and topography of the Dean dictate, and have in turn been influenced by, the way water moves through the Forest landscape. Despite the massive impacts of mining, industry and surface drainage for woodland plantations over the last two centuries, there remains a remarkable degree of linkage between the headwater streams and the tidal rivers of the Severn and Wye. Although much degraded, the potential for restoration of riverine, wetland and mire habitats, and the resultant positive impacts on associated species of plants, animals and insects is huge.

In summary, the Forest of Dean is a nationally and internationally important landscape for nature. The intrinsic value of that nature comes from the intimate and diverse relationship between individual trees and woodlands, linkages with open spaces and grazing animals, and the relics left by our industry. While what we have is great, we can't escape from the fact that the Forest under-performs and has been in decline for many decades from a nature conservation perspective. The additional threats from climate change, and the increased pace of change in the wider environment, require a revitalised, landscape-scale approach focusing on the Lawton principles of bigger, better and more joined up.

WHERE DO WE WANT TO GET TO?

In 100 years, the Forest will be justifiably known as one of the top locations to see a vibrant, diverse, yet wild landscape where natural processes support a productive and species rich Forest.

Each habitat will be of a sufficient size and scale to self-perpetuate through natural processes, where man's interventions are few and far between. The landscape will be dynamic, and habitats will naturally evolve as they respond to differing conditions. The landscape will be permeable, with high degrees of connectivity so that species can readily move to new sites as those habitats naturally transition.

The Forest's watercourses and wetlands will enjoy functional connectivity between upland bogs and headwater streams to the tidal rivers. Ponds and lakes will have an ecological function, as well as an aesthetic and storm water storage one.

Grazing animals will play an important role in maintaining those open habitats, both domestic stock and wild. Iconic species, and the ability to see them, will be supporting a renewed engagement between people and the wildlife around them.

Diverse woodland structures, coppice, high forest, pasture woodland and increased numbers of veteran trees of different species will form a varied wooded structure, providing shelter and security. The vibrant woodlands will act to mitigate extremes of rainfall and temperature for wildlife and people.

Woodland design and structure will act to minimise, or contain, fire risk during increased periods of intense drought and high temperatures, providing increased protection and resilience of the wildlife and wild spaces.

Management of the Forest's built heritage, mines and quarries, will recognise the intrinsic values of those man-made structures for wildlife conservation.

WHAT ARE WE GOING TO DO?

Our commitments:

1 Identify habitats of current and potential conservation importance, to ensure they are made bigger, better and more joined up

2 Reduce the spread and impact of invasive species

3 Improve habitats through the development and care of our woodlands

4 Utilise open spaces for nature conservation by developing grazing systems

5 Use species reintroduction to deliver positive changes to the environment

6 Manage and monitor Sites of Special Scientific Interest (SSSI)

1 Identify habitats of current and potential conservation importance, to ensure they are made bigger, better and more joined up

Our initial priority will be to complete a high level habitat mapping exercise, linked to the existing Forest of Dean Landscape Character work, to provide a landscape scale framework to link habitats in a resilient and ecologically functional manner. Landscape connectivity will be considered to ensure the habitat for the internationally important bat colonies are protected or improved.

During the Forest Planning process, this high level mapping will be refined to take into account specific sites of current and potential conservation importance, and how they will be functionally linked and ecologically sustained in reality. This will reflect our ambition for bigger habitat units, where ecological functions / natural processes are sustained with only minimal intervention by man.

2 Reduce the spread and impact of invasive species

There is a range of invasive species that are of long-term conservation concern for the Forest of Dean. These include, but are not limited to, feral wild boar, deer (notably muntjac) and grey squirrels, as well as plant species such as Himalayan Balsam, Giant Hogweed and Japanese Knotweed. We will further develop strategies and interventions to reduce the spread and impact of these species, noting that the presence of these species at low densities may be beneficial to delivery of our long-term objectives.

3 Improve habitats through the development and care of our woodlands

We will diversify woodland structure, taking a site by site approach to decision making to determine appropriate silvicultural systems and individual interventions. In this way, we will maximise age class diversity, species diversity, manipulation of light levels (impacting on ground flora and regeneration) and maximise local character. This will include identification

of non-intervention, old growth, and coppice woodlands, for example. Our objective will be to move away from the clearfell / restock system. Attention to woodland edge management will be increased to improve habitat (and aesthetic) values.

4 Utilise open spaces for nature conservation by developing grazing systems

Historically, many of the open spaces in wooded environments have been both created and maintained naturally by grazing animals. To manage open spaces in an optimal way for nature conservation, we need to develop grazing systems appropriate to the size, scale and nature of the habitats we plan. Our challenge is to do this in a way that supports the cultural heritage of free roaming sheep, whilst focusing grazing in the areas required – that may change over time, and in a way that reduces the need for intrusive fencing. We recognise that different animals graze in different ways, and thus a blend of hardy stock will be required.

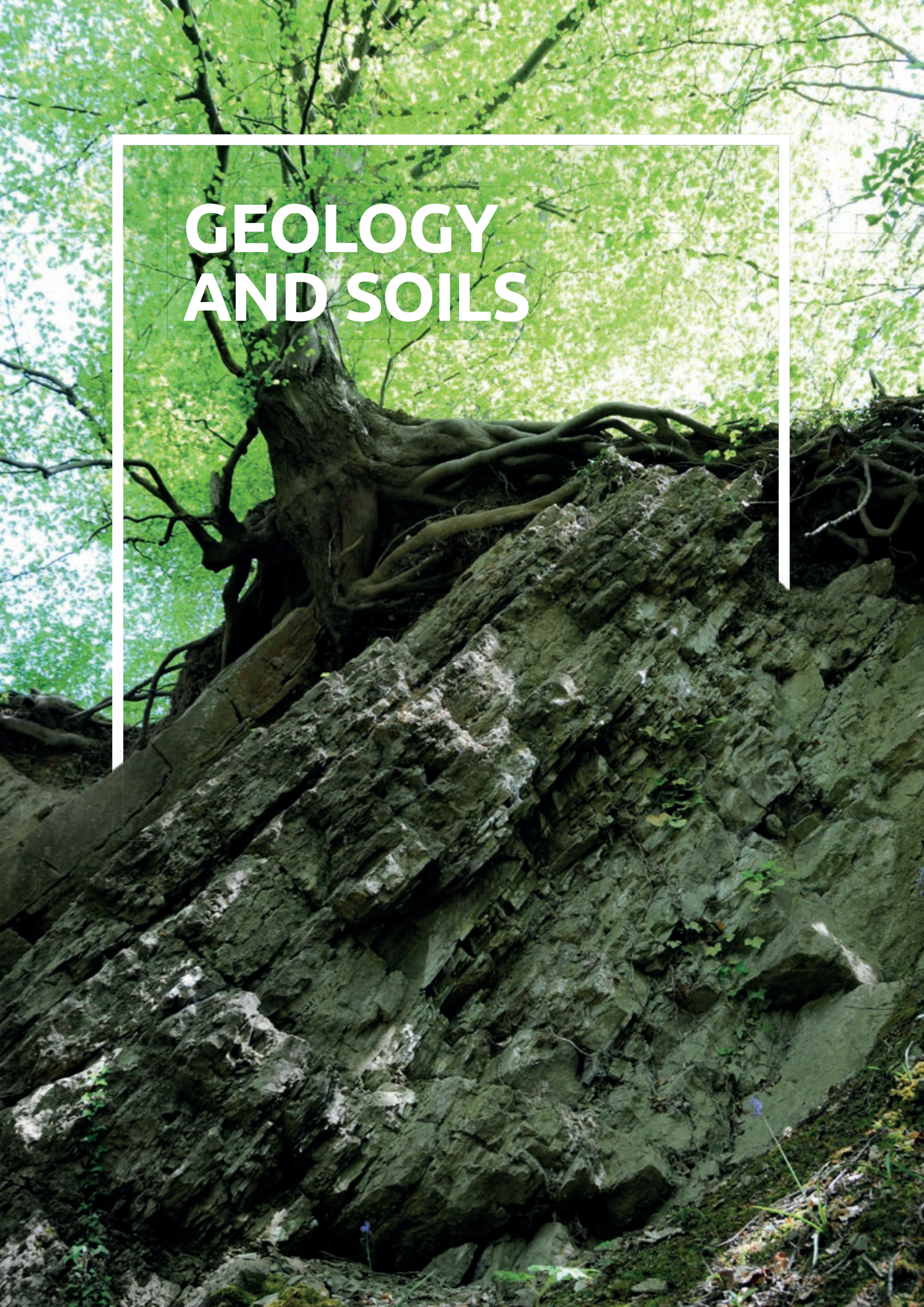
5 Use species reintroduction to deliver positive changes to the environment

The ecological richness of the Forest has declined over the last few decades, and some species are at risk of extinction from the Forest. Some species, such as beaver and pine marten, have been identified as animal species that can be used to deliver positive change to the environment. Beavers are natural water engineers, and can fundamentally change man-made water courses and drained valleys in a short space of time. There is scope to consider further use of inclosed populations of beavers and, in time perhaps, potential to remove the fences and let beavers naturally recolonise the catchments. Pine marten have the potential to impact grey squirrel populations and lower the density of squirrels, which will reduce damage to trees and predation of other species. Other species of plants, insects and animals may be considered for reintroduction to play a beneficial role in the environment, to add to the species diversity, or reinforce a declining species. In all cases, proposed reintroductions will be carefully assessed to ensure we don't create an ecological or social problem, and to ensure the introduction has a good chance of success.

6 Manage and monitor Sites of Special Scientific Interest (SSSI)

The existing network of Sites of Special Scientific Interest will continue to be managed in accordance with the approved plans to retain or achieve 'favourable condition' status. Where appropriate, Forest Plans will look to extend or buffer SSSI sites with habitat of a similar or supporting nature in line with the Lawton principles of bigger, better and more joined up.

These are our principles of land management to celebrate our wildlife and safeguard our wild spaces.



GEOLOGY AND SOILS

WHERE ARE WE NOW?

The distinctive and diverse landscape of the Forest of Dean is determined by the nature of the rocks that lie beneath the surface and the processes that have formed them. In turn the Forest soils are closely related to the rocks from which they are derived.

Everything we see on the surface of the Forest of Dean – the changing topography, varied natural habitats and vegetation, the patterns of human settlement, culture and even the buildings – is shaped by the underlying geology. An understanding of the geology of the Forest of Dean and how it influences the character of the area is of fundamental importance if we are to retain the distinctive and diverse landscape.

The geology of the Forest is exceptionally diverse, with significant change across a small area. At its most basic, the Forest can be thought of as sitting upon the Old Red Sandstone.

To the west and north, the high ground is made up of the Carboniferous limestones. These are freely draining rocks, as the rock is cracked and fissured. Surface water percolates down these cracks and fissures, eroding out the limestone to form complex cavern systems.

In the core of the Forest is the 'coal basin'. The rocks outcropping at the surface in the coal basin are the younger Carboniferous coal measures. These include sandstones, the coal seams and associated clays.

To the east of the 'coal basin' is a series of ridges and valleys. These ridges and valleys can be thought of as a crumple zone where all the rocks so far mentioned outcrop at the surface, having been pushed upwards by huge forces. These outcrops are in a broadly linear fashion, although this can be hidden in places by alluvial deposits (most likely glacial in origin) that are essentially 'dumps' of other rock material upon the surface; mainly sands and gravels.

The richness and complexity of the Forest's geology is represented in the relatively high number of geological SSSIs, and the plethora of current, mothballed and long-closed mineral extraction sites – stone quarries, iron and coal mines.

Soil formation can also be incredibly complex, and is directly linked to the underlying geology, as soil derives from rock as well as deposited organic matter. As rock breaks down through weathering and erosion, the resulting particles form the basis for soil. Soil evolves as a result of physical and chemical processes, and biological activity. It can vary from a very thin cover, or none, to deep soils and peat. The underlying geology is important in determining the chemical and physical nature of the developing soil and the habitats and vegetation types it supports. In turn, the nature of the vegetation, cycles of vegetation decay, activity of earthworms and fungi also enrich and improve soil fertility and structure.

In the Dean, the differences in geology, and therefore soils, can easily be observed, often over only short distances as you move through the Forest.

Limestones lead to alkaline, well-drained and often quite shallow soils. The climax vegetation upon limestone is dominated by ash, beech, field maple woodland with pockets of lime and an understorey of blackthorn, hawthorn, yew, privet and spindle. The ground layer consists of an assemblage of characteristic species including dog's mercury (Mercuralis perennis), enchanter's nightshade (Circaea lutetiana) and wood sedge

(Carex sylvatica). Where suitable conditions exist on remnant pockets of outcropping limestone, calcareous grassland supports uncommon and interesting plants such as bloody cranesbill (Geranium sanguisorba), common rock-rose (Helianthemum nummularium) and soft-leaved sedge (Carex montana). Species such as the Carboniferous hawkweed (Hieracium pachyphylloides) and a variety of whitebeam hybrids are endemic to the Wye Valley due to the unique geological conditions it provides.

Sandstones, sands and gravels lead to more acidic, well-drained brown, podzolic soils – more typical of the central basin of the Forest of Dean. The natural climax vegetation of the Forest of Dean is sessile oak (Quercus petraea), pedunculate oak (Quercus robur), and birch (Betula pendula), with rowan (Sorbus aucuparia) and holly (Ilex aquifolium) in the understorey. When the climax vegetation is removed, as

was the case when areas of the original wild wood were felled, the resulting acid grasslands and lowland heaths support bramble (Rubus fruticosus), bracken (Pteridium aquifolium) and, on the most acidic soils, light demanding ericaceous shrubs such as ling (Calluna vulgaris), bell heather (Erica ciliaris), bilberry (Vaccinium myrtillis) and tormentil (Potentilla erecta).

Fine-grained rocks, such as the coal measure clays, mudstones and shales, lead to poorly-drained soils – and it is these soils that underlay the wetter areas of the Forest of Dean. Where drainage is impeded, the climax vegetation that would naturally exist is pockets of wet woodland supporting species such as alder (Alnus glutinosa) and willow (Salix spp.) with rain-fed mires which proliferated where the ground is too wet to support trees. This creates unique assemblages of wet heath and mire plants such as sundew (Drosera rotundifolia), bog myrtle (Myrica gale) and Sphagnum species. These wetlands not only provide habitat for diverse and severely declining wetland plants and invertebrates, they also store carbon in the peat that gradually forms over millennia as sphagnum is compacted. Very little of the original wetland/mire communities still exist within the Forest of Dean, as the groundwaters feeding them have been impacted through drainage for forestry or industry.

Many of our former mineral extraction sites have areas of minimal or no soil cover where the soil forming process is in its infancy after disturbance. These areas are nationally rare and have a value in their own right.

In comparison to the highly disturbed, ploughed and fertilised soils of much of the surrounding agricultural landscape, Forest soils remain relatively intact in terms of their composition and structure. Within some agricultural landscapes, the annual damage done by arable cropping is destroying the soil's structure and fertility faster than natural soil forming processes can replenish it. There is growing recognition in agriculture that active soil conservation has to become part of modern farming to maintain productivity.

The same is true of forestry and timber cropping – but with significantly different time horizons. Over time, repeated timber cropping will have a negative impact on many of the natural

processes that underpin a healthy functioning surface and soil ecosystem in co-existence with the underlying geology. Through disruption to these processes, the soil's ability to support vegetation and tree growth is reduced, and its ability to support beneficial soil organisms, and the free movement of soil water are negatively affected. Healthy, aerated and well-structured soil is thus vital for woodland resilience.

WHERE DO WE WANT TO GET TO?

In 100 years, we want to have retained or enhanced the distinctive diversity of habitats and species of wildlife that are thriving within the Forest. We will have realised the ecological and productive potential of the Forest, and maintained or increased its carbon storage capacity.

We will have provided functional ecological linkages to have reduced the negative implications of 'island sites' for species conservation, which reflect the underlying soils and geology. We will be actively managing dynamic, site-appropriate habitats to maintain a range of ecosystems, linked to healthy soil regime.

We will have a resilient Forest, where extremes of climate may have an impact on the diverse woodlands and other habitats, but the natural and managed resilience ensures that no single climatic event has a devastating impact. Restoring natural processes is an important long-term aim to improve the Forest's resilience, and its ability to adapt in the face of climate change.

This means we will give time and space for nature and natural processes, with greater shared understanding of the objectives in place for each area or compartment. Site by site decision making based upon sound objectives and professional judgment, coupled with patience, will be promoted over our current silvicultural philosophy of making artificial interventions every few years. We will have the right tree, in the right place for the right reason.

We wish to reduce soil damage through compaction, erosion or pollution to an absolute minimum through good site management and greater use of permanent extraction / access routes (which themselves will inevitably be more degraded as a result).

We also wish to increase awareness of the Forest's geological diversity, and how that diversity has influenced the natural, built and cultural heritage of the Forest.

WHAT ARE WE GOING TO DO?

Our commitments:

1 Identify optimum sites for lowland heath, mire and other wetlands and link these to open spaces

2 Move away from felling blocks of trees to reduce the impact on soil qualities

3 Improve extraction and access routes for forest operations to reduce soil compaction by machines

4 Promote the story of our geological sites of interest

1 Identify optimum sites for lowland heath, mire and other wetlands and link these to open spaces

We will critically examine the Forest as a whole, and determine where the optimum sites are for lowland heath, mire and other wetlands, as directed by the underlying geology and potential of the soils and landform. We will look to link those areas with ecologically functional corridors of open space and riparian woodlands. Open habitats will be sufficiently extensive and connected to allow a more naturalistic approach to their management, using grazing ponies, cattle and sheep. Wooded habitats will also be matched to soil type and land form, recognising that different tree species have different soil preferences for nutrient and soil moisture regimes, for example.

2 Move away from felling blocks of trees to reduce the impact on soil qualities

We will evolve our approach away from the plantation system of clear-fell/restock towards more continuous cover systems, to preserve woodland cover and reduce the negative impact of large scale clearances on soil processes, such as soil moisture regimes and soil micro-organisms.

3 Improve extraction and access routes for forest operations to reduce soil compaction by machines

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

strengthen the link between operational plans and execution of those plans, with more robust monitoring post-operation to assess whether the objectives were met.

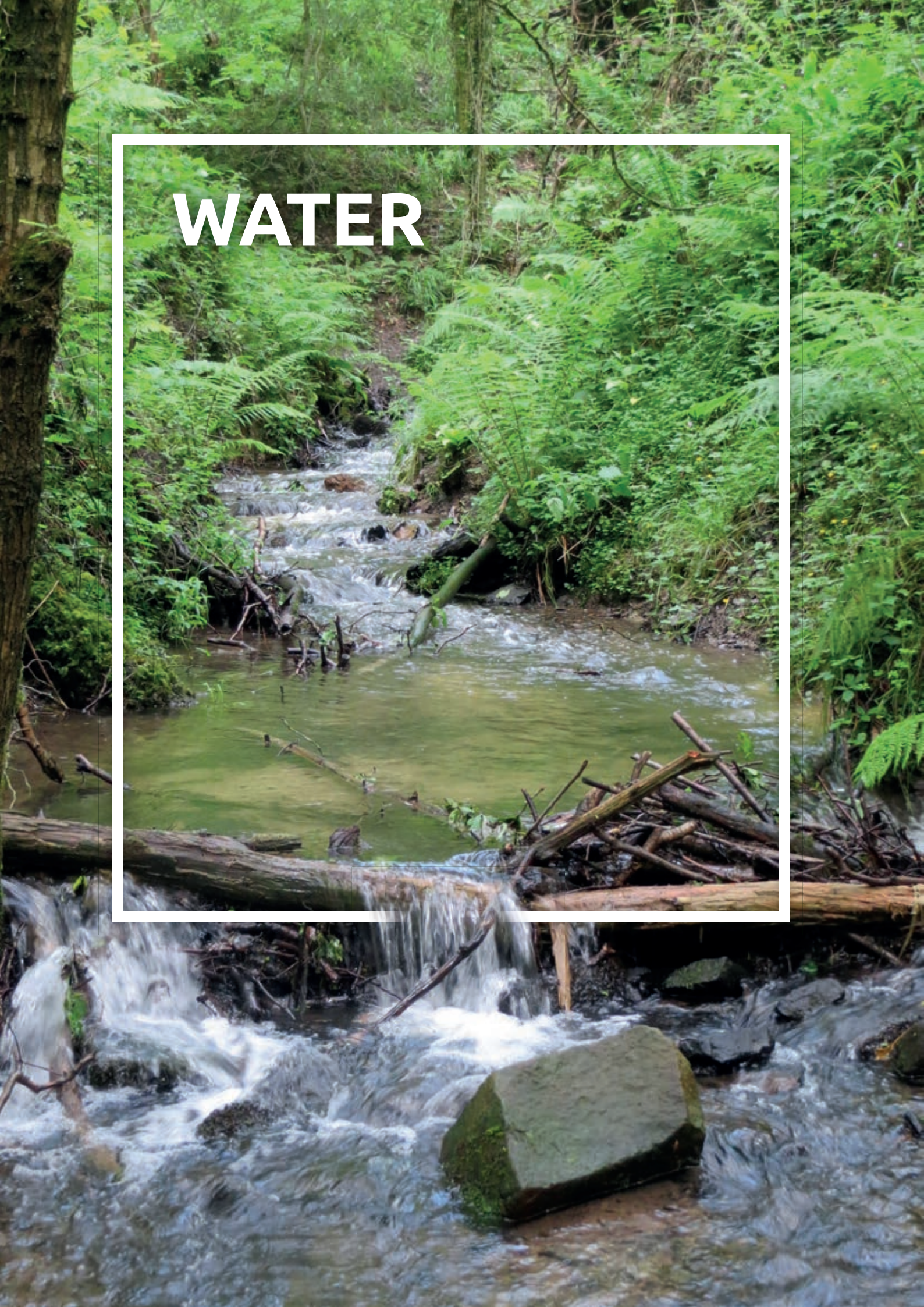
We will steadily raise the standard we expect in the Forest, surpassing the application of the existing Forestry Standards, as we set our ambitions to reach exemplary standards of woodland management.

We will ensure extraction and access plans are included for all forest operations to reduce soil compaction by machines, and ensure that additional focus is given to control of erosion and sedimentation. This will include greater support for suspending works when control of sedimentation cannot be guaranteed due to ground or prevailing weather conditions.

4 Promote the story of our geological sites of interest

We will maintain our suite of geological SSSIs in favourable condition, and maintain access to them, where it is safe to do so. We will endeavour to understand the relevance of each site to the story of our landscape so that appropriate sites can feature in the interpretation programme.

These are our principles of land management to celebrate our geological heritage and safeguard our soils.


WATER

WHERE ARE WE NOW?

The Forest of Dean's complex geology underpins a distinctive and diverse landscape. Water moving through that landscape has naturally responded to the different topographies and permeability of the underlying rock over thousands of years.

On the limestone geologies, surface water would have readily percolated underground, leaving a fairly dry surface much more conducive to people moving through, and settling in the landscape. On the coal measures in the core of the forest, a much wetter natural habitat would have existed, with dense wet woodlands, braided stream channels, sphagnum bogs and mires, which would have made it an unwelcoming place for people.

Over time, as people settled in the landscape and started to exploit it the Forest has become significantly drier. Underground mine workings have provided many more points for surface water to drain underground and be channelled effectively out from the Forest. Centuries of woodland management have led to the creation of effective drainage patterns across much of the land surface. The channelling of water to power industries in the 19th century also had a dramatic impact in some locations. The result of those human activities is a well-drained landscape in which water moves more rapidly through the Forest than would naturally be the case.

There are two contrasting impacts of water moving through the Forest rapidly. Firstly, during periods of drought, low and no-flow conditions in the waterways have significant negative impacts on the ecology of streams and associated ponds. Secondly, in periods of high rainfall, the speed of water in the main channels can cause increased erosion leading to excessive sedimentation and damage to infrastructure, such as bridge supports and culvert pipes, as well as down-stream flood risk to properties. This is of particular concern for the Soudley and Ruspidge areas, that are recognised by the Environment Agency as being in a 'rapid response' catchment, where a catastrophic flood event is possible with risk to life.

It is, however, important to note that the intrinsic 'roughness' of woodlands and associated habitats results in water moving more slowly across the surface before finding its way into a drainage channel than either urban or agricultural land uses. It is also worth noting that the largest water bodies of Cannop Ponds, Soudley Ponds, Woorgreens and Mallards Pike Lakes are all man-made.

Despite the impact man has had on the way water moves through the Forest landscape, there remains a remarkable level of connectivity between the sea, the large tidal rivers (the Severn and Wye), and the Forest's streams and headwaters. This degree of connectivity, and the relatively benign conditions of woodland management, provide huge potential for a wetland network of national importance for aquatic flora and fauna. The Forest is already home to the endangered white claw crayfish, and the critically endangered European eel, for example.

Urban development and modern living can mask the linkages between water flowing in the natural environment and water coming out of your taps, or sewage down your toilets. But those linkages are very real. For example, much of Cinderford's drinking water comes from the underlying limestone aquifer, which is fed and maintained by rainwater percolating through from the woods above. The broken nature of the geology in places allows springs to emerge in the woods, either as lines across a hill side or as a single point, often identified as a well.

Poorly maintained septic tanks, or poor linkage of surface drains to the public sewer system, can lead to contaminated water getting into natural streams and Forest drains, leading to both short and long-term pollution. Although largely unreported, a number of properties in the Forest suffer from occasional, but predictable, surface water flooding.

The impact of the porous limestones, and the extensive mining through the coal measures, means that ground water and ground water flows are significant. The main mine 'drain' point is at Norchard, where water can be heard roaring out of the ground as you approach the Dean Forest Railway's main visitor base. But other drains exist throughout the Forest, often evident by a discolouration as mineral contaminants are deposited on the surface after the water emerges from underground. The ground water movements are complex, and numerous 'dip-wells' are maintained by the Environment Agency to track the levels. A number of properties in the Forest suffer from ground water flooding, albeit less frequently than surface water flooding; but it is still a significant issue for those affected.

Ponds in the Forest are predominantly man-made, and are in a generally poor condition due to encroachment by trees. Artificial stocking of the larger lakes with fish also poses a risk to the native aquatic fauna due to direct predation and risk of disease.

WHERE DO WE WANT TO GET TO?

100 years from now, we will see a Forest where the streams, lakes, ponds and wetlands no longer require anything but the most minor interventions for natural processes to function and for a healthy water environment to prevail.

Our vision is that water in the Forest will be seen, perhaps for the first time, as a vitally important, life-giving asset to be cherished and treated with respect.

Streams will choose their own courses across their flood plains, forming blockages, islands, braided channels and backwaters. The flood plains will largely be riparian woodland, with tree species that are appropriate to this wet situation such as willows, aspen and alder.

The wooded slopes of the valleys and plateaus will include areas of mire and wet heathland that will act as sponges, holding up sufficient water for our streams to flow healthily throughout the summer months, maintaining good water quality and providing a habitat for fish and other aquatic species. The fish and other aquatic animals in the streams will have free passage to move from the Wye and Severn right up into the headwaters of the brooks, as manmade barriers have been removed or bypassed. The natural corridors along the brooks and their tributaries will provide vital connectivity between other patches of semi-natural habitat within the Forest.

Beavers will have established territories in many parts of the Forest, bringing with them dams, ponds and wet meadows. These, in turn, will provide a home for a plethora of wildlife such as water voles, fish, invertebrates, such as dragonflies, and a range of wetland plants.

The streams, ponds, flood plains and wetlands will be accessible to people for leisure and for sustainable exploitation of resources, including timber production and the provision of drinking water. People will more fully understand the links between water in the Forest, and the water in their homes, and value the wildlife supported by a healthy system.

After heavy rainfall, water will no longer rush down our rivers in torrents to cause flash-flooding in our towns and villages. It will pass slowly through the system via well-structured and rich soils; along complex, meandered and messy channels and flood plains; reaching our communities in a naturally controlled and predictable flow.

WHAT ARE WE GOING TO DO?

Our commitments:

1 Identify and develop riparian zones to enhance connectivity and functionality of watercourses

2 Naturalise water channels by creating natural structures to build habitat diversity and slow the flow of water

3 Remove non-functional artificial barriers that restrict the movement of water and fish

4 Restore active mires and bogs to create habitat and reduce volumes of water flowing down and out of the Forest in storm conditions

5 Create and maintain ponds to support ecology

6 Manage water flow on operational sites to reduce soil erosion and excessive sedimentation, and modify our approaches to woodland drainage to allow them to function more naturally

7 Use beavers for engineering watery landscapes

1 Identify and develop riparian zones to enhance connectivity and functionality of watercourses

Our initial priority will be to complete a high level habitat mapping exercise, linked to the existing Forest of Dean Landscape Character work, to provide a landscape-scale framework to link habitats in a resilient and ecologically functional manner.

Connectivity, and ecological functionality of the watercourses, will be enhanced through identification and development of functional riparian zones. A functional riparian zone intercepts surface water flows before they meet a flowing stream or other drainage channel – forcing the surface water to slow down and filter through the ground vegetation before meeting the main channel, which allows carried sediment to drop out. Within the riparian zone, the main channel should be functioning in a naturally diverse and ever changing way, connected to its flood plain.

2 Naturalise water channels by creating natural structures to build habitat diversity and slow the flow of water

Currently a great many of the Forest's stream, river and drainage channels have been artificially straightened and deepened. This needs to be reversed to slow the water down, allowing channels to meander and braid (split into numerous smaller channels). This can be done in numerous ways, but each site needs to be assessed on its own merits with appropriate assessment of risk, and respect for other land management principles (including built heritage). When naturalising streams, we will look to create a variety of naturalistic structures to build in habitat diversity.

3 Remove non-functional artificial barriers that restrict the movement of water and fish

The free movement of water and fish is restricted in numerous places by artificial barriers. Some of those barriers no longer perform any useful function and could be removed. Others are still required, or have a built heritage value, and more careful assessment of options needs to be made. In the main, forestry culvert pipes and bridges are too too small and, as they are replaced, we will look to increase the space for natural water flows. Our larger lake systems are all man-made, and often large volumes of water are artificially held back by aging or otherwise vulnerable dams. While we are not proposing to remove those lakes, we will review options to reduce risk and increase ecological values, while aiming to preserve amenity values, through re-engineering dams and out-falls.

4 Restore active mires and bogs to create habitat and reduce volumes of water flowing down and out of the Forest in storm conditions

Within the upper parts of the Forest core, we will look to areas of relict mire as the starting point to restore active mire / sphagnum bog. This is an important habitat in its own right, but will also have an important role in acting as a reservoir of water that can be naturally released during drought conditions to maintain stream flows. These bogs will also hold water in storm conditions, thus reducing the volumes flowing down and out of the Forest.

5 Create and maintain ponds to support ecology

We will look to supplement the existing pond network with collections of ponds within suitable locations (soils/ topography) where natural processes can operate to support an ecologically functional system, acknowledging that tree felling and scrub management may be required through time.

6 Manage water flow on operational sites to reduce soil erosion and excessive sedimentation, and modify our approaches to woodland drainage to allow them to function more naturally

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

Management of surface flows from and across operational sites will be improved to reduce soil erosion and excessive sedimentation downstream.

We will modify our approaches to woodland drainage, and drain maintenance, aiming to reduce the artificiality of drains, and encouraging them to function more naturally – acknowledging that civil engineering assets need to be maintained, and that protection from water damage may require pro-active interventions. In making those interventions, we will be aware of the potential down-stream or down slope impacts. Equally, we will need to continue to manipulate soil water levels in some wooded locations, such as oak woods, to maintain conditions for healthy tree growth.

7 Use beavers for engineering watery landscapes

While the return of beavers to part of their former native range is a good conservation story in its own right, our interest in them is largely as a 'tool' for engineering watery landscapes to store water, mitigate storm flows and filter out contaminants to improve water quality. Beavers will provide much of the ecological functionality that we are looking to recreate through naturalisation of stream channels. The challenge with beavers is getting them to work in areas we want them, and stopping them straying into areas we don't. Currently, this is achieved through heavy duty fencing, but we don't want to see significant, large-scale fencing in the Forest long-term. The effectiveness of the beavers will continue to be monitored and evaluated before any expansion of their use, as part of an overall monitoring scheme.

These are our principles of land management to safeguard and enhance our waterways, wetlands and water quality in the Forest of Dean.

CULTURAL HERITAGE

WHERE ARE WE NOW?

The Forest of Dean has a long and complex social history linked to the exploitation of its mineral wealth and timber resources.

The way people have engaged with the landscape over hundreds of years has shaped a unique and complex cultural identity. This identity is anchored in the landscape, and celebrated through a vast range of texts, poems and songs.

Whilst the integral parts of this culture are hard to separately define and categorise, there are broadly four key aspects of cultural heritage that directly link to land management, as follows:

1 Crown and Forest law

2 Grazing and the inclosures

3 Forest structure

4 Freemining (and free quarries)

Crown and Forest law

The Forest's origins pre-date the Norman Conquest of 1066. However, many of the cultural characteristics of the Forest's landscape today have their roots in the concepts of 'Forest' and 'Forest Law' introduced by the Normans. For the Normans, the word forest described a large area of wild land given over for hunting. This wild area would have contained a diversity of habitats, and little or no settlement to impede the hunt. Forest Law was draconian, designed to prevent local people from reducing the value of the area for hunting by protecting the 'vert' and 'venison'. Vert was the greenery upon which the deer and boar depended for food and shelter, and venison being the game animals. While some property within the bounds of a forest could be privately owned, the majority was deemed to be owned by the Crown, outside of the ownership of the manors and parishes; or 'extra-parochial'.

HM Verderers are a direct descendent from the Norman's administration of Forest Law. The Verderers were locally elected officials who oversaw the application of Forest Law within their court. The Verderers' Court was more properly known as the 'Court of Attachment', and more popularly known as the 'Speech Court'. The Verderers were stripped of their remaining legal powers in the 1970s but are still elected in the traditional way, and meet in their courtroom at the Speech House on a quarterly basis.

The Crown's governance of forests evolved over time, moving to a mixed economy where the Crown took revenues for common grazing, venison, mineral royalties, property rents, and the sale of timber – as well as the fines levied for abuses against the forest.

Grazing and the inclosures

The tradition of sheep grazing has long been a cause of contention. Long ago, all manner of domestic stock grazed the Forest, with the 1217 'Charter of the Forest' granting a right for 'freemen' to 'agist their stock' (graze the Forest for a fee) and to have 'pannage' for their pigs. The current position, arguably, had its origins in the 1668 Dean Forest (Reafforestation) Act that followed the Civil War and devastation to the timber resource caused by the iron industry.

The 1668 Act established the Inclosure Commissioners to oversee the creation of inclosures for the protection of planted trees, with those inclosures freed from common rights for a period. Under the 1668 Act, those who could exercise common rights were those who had proven entitlement to such rights in 1634.

The 1668 Act was largely repeated in the 1808 the Dean Forest (Timber) Act. Many of the surviving inclosure boundaries date from the decades immediately after 1808 when the Crown, under Deputy Surveyor Machen's leadership, systematically inclosed and replanted the Forest. This vigorous approach directly led to the 'Warren James riot' of 1831, and the Dean Forest Commission that regularised much of the custom of the Forest, including the boundary, settlement encroachments and the freemining. However, the common rights were not satisfactorily dealt with – Cyril Hart relates that the evidence to the Commissioners was disjointed and conflicting. In 1898, Deputy Surveyor Bayliss tried to stamp out sheep grazing in the Forest, and referred the matter to the Crown's Law Officers, who ruled that 'there is no Right of Common in the Forest of Dean, instead the Crown suffer the privilege of sheep grazing'. This is the position the Crown has taken consistently and Forestry England maintains today.

Forest structure

The historic use of the landscape, coupled with the topography and soils (both defined by the geology) has given a spatial structure of forest wastes, wooded inclosures and pasture woodlands.

The wooded inclosures are those areas that have been planted and cropped as a timber resource over hundreds of years. The Forest wastes are those areas of the Forest that are either unsuitable or otherwise unwanted for tree planting, and thus are those areas that remained outside of the inclosures. The Forest wastes are most prevalent on the fringes of the Forest, and were encroached upon in the 19th century to create the ring of 'squatter' settlements that evolved into the Forest villages of today.

Within the core of the Forest, the classic 'forest lawn' structures of many so-called royal hunting forests are not evident – although place names of Moseley Green and Serridge Green, for example, may be indicative of their past locations. Instead, within the Forest core, between the inclosure boundaries, pasture woodland has arisen. These are areas that have been grazed for many centuries, but also have a well-developed tree cover. As the pasture woodlands fell outside of the areas managed for 'timber', they tend to be home to the oldest trees.

This long lived Forest structure gives a well-established pattern of open space being most commonly found on the Forest edge, with the larger trees of the pasture woodlands crowding the road ways and tracks through the wooded core, and then denser tree plantings and plantations, in the inclosures. This gives rise to a strong sense of being within a woodland, in amongst the trees when passing through the Forest. This is actually quite rare, with relatively few other places in the country having such an intimate relationship between people and trees. This is reflected in much of the literature of the Forest, with authors such as Winifred Foley, Leonard Clark and Dennis Potter painting a picture of living in the trees and of a closeness with nature.

In many ways, the Forest we enjoy today is different from many. There are simply so many trees, overhanging roads and hugging paths with little open space. There is no denying that you are in a thick, dense woodland – and that is quite rare.

Freemining (and Free Quarrymen)

The proud tradition of Freemining, uniquely codified into law through the 1838 Dean Forest Mines Act, has its roots long before 1400. The earliest of the Dean's miners sought iron ore. Ochre and coal came to prominence later, although the era of the deep mines of the late 19th and early to mid-20th centuries had the most profound impacts on the development of our communities.

The surface quarries have extracted the sandstones and limestones in an industry that has continued without pause for as long as the miners have worked. While the remnant mine and quarry structures can be dealt with by the Principles of Land Management for Built Heritage and Archaeology, and the interest

in the geology is covered by the Principles of Land Management for Geology and Soils, there is a continuing social legacy that needs safeguarding. These are the stories related to the mines and quarries and those who worked them. The more obvious manifestations of those stories today are the memorials sited at many of the former mine sites.

WHERE DO WE WANT TO GET TO?

In 100 years, we want the Forest to be a distinctive and cherished landscape shaped by man, where our story can be traced and understood through the practice of traditions, such as freemining and sheep badgering. The essence of lives lived and described in poetry, texts and music will echo loudly and resonate clearly with the lives of those who have yet to come.

Our cultural heritage will be better understood by more people, and those traditions will be safeguarded by people practising the skills of running sheep or digging out our mineral wealth.

However, the Forest will not be a manicured theme park. It will still feel like a wild place where nature retains the upper hand and trees loom large. It will be a place where a person can immerse themselves, get lost, and be at one with nature.

WHAT ARE WE GOING TO DO?

Our commitments:

1 Respect and support the HM Verderers

Continue to support HM Verderers and their court, the Court of Attachment, in the Speech House, encouraging the Verderers to take a more active role in preserving, and encouraging engagement with our cultural heritage and the overall structure of our Forest.

2 Respect and support HM Inclosures Commissioners

Maintain as far as possible the historic woodland structures of inclosure boundaries, wooded inclosure and the pasture woodlands, and continuing support for HM Inclosure Commissioners.

3 Support and encourage the traditional privilege of sheep grazing

Support and encourage the privilege of sheep grazing, maintaining a focus on responsible shepherding through regular dialogue with the Commoners Association and the partners of the Sheep Liaison Group. Shape a wider appreciation and understanding of the role that grazing animals play in maintaining and improving the ecological and aesthetic qualities of the Forest.

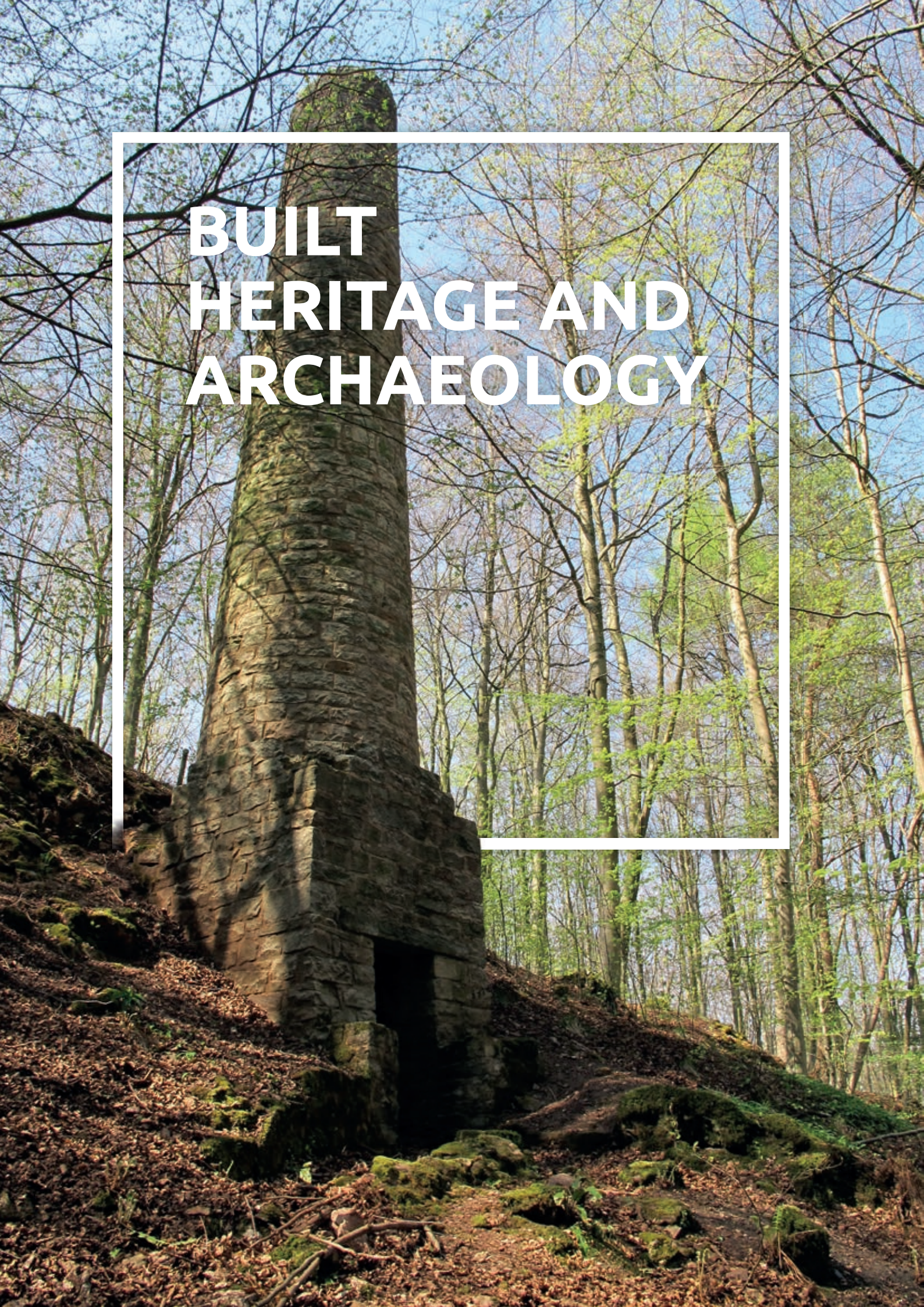
4 Strengthen the feel of being within a Forest of trees

Strengthening the feel of being in amongst the trees, and of being at one with the Forest's wildlife through land management decisions, and aesthetic landspace considerations that use trees to frame views, provide for longevity of trees (ie. encourage more ancient and veteran trees) and challenge decisions that unnecessarily urbanise the Forest environment.

5 Support and promote small-scale mining and quarrying

We will continue to support and promote small-scale mining and quarrying following the traditions set out over hundreds of years, adapting to necessary changes in the legislative or regulatory frameworks.

These are our principles of land management to safeguard our Cultural Heritage in the Forest of Dean.



BUILT HERITAGE AND ARCHAEOLOGY

WHERE ARE WE NOW?

The Forest of Dean has a long and complex history of exploitation for its mineral wealth and timber resources.

While that exploitation has, at times, been brutal, the continuity of woodland management across a very large area has resulted in an incredibly rich legacy of built heritage and archaeological features surviving within the Forest landscape.

These features trace the patterns of our use of the landscape over thousands of years of change.

The Forest has a relatively small number of scheduled ancient monuments, but a myriad of remnant structures surviving as ruins or wall lines or just earthworks. In addition to the surviving built heritage, there is a wealth of buried archaeological features – some known and recorded associated with surface features, and probably far more unknown and unrecorded, with no obvious surface features to attract attention.

Many of the features have already been, or are in the process of being, reclaimed by nature, greening up, or becoming buried. These natural processes of decay and woodland renewal are valued and appreciated aspects of our Forest heritage.

While, individually, sites can be incredibly exciting, and some, such as the DarkHill / Titanic steel works complex, are of international importance, it is very much the density and mass of surviving features in the landscape that make the Forest of Dean nationally important for built heritage and archaeology. Much of the local distinctiveness is the ability to find, trip over, or stumble across these features without the 'theme park' approach of protective fencing and interpretation signage.

WHERE DO WE WANT TO GET TO?

In 100 years, the Forest will be a distinctive and cherished landscape shaped by man, where our story can be traced and understood on the ground, with key heritage sites preserved, understood and interpreted for locals and visitors alike.

The heritage of the Forest will be better understood, and we will be able to confidently state that we have a comprehensive record of known features and a robust understanding of what those features are and what they represent. There will be a myriad of built heritage features being reclaimed by nature, or becoming buried, but no built features will have been deliberately destroyed or damaged.

In 10 years, we will have completed the categorisation of all known sites, and have extended our knowledge through identification of new sites, and / or completed excavations or other investigations of those known sites. Management planning for the category one sites will have been completed and subsequent monitoring will show those sites to be in good condition with active management and interpretation in place.

WHAT ARE WE GOING TO DO?

Our commitments:

1 Categorise our built heritage and archaeological features

2 Involve members of the local community to help monitor and maintain our built heritage and archaeological features

3 Continue investigation and research into our built heritage and archaeological features

4 Pragmatically manage public safety through inspection and fencing

5 Establish a new advisory group, to be known as the 'Built Heritage and Archaeology Advisory Panel for the Forest of Dean', to assist with decision making

1 Categorise our built heritage and archaeological features

Our approach in the Forest of Dean will be to manage to three distinct categories of built heritage and archaeological features.

Category One: Scheduled ancient monuments and listed buildings. These will have individual management plans that will separately lay out the agreed management actions to protect and enhance the social and historical values of those structures. These plans will be approved by Historic England.

Additional structures or sites that have no statutory protection may be identified and agreed by us to be treated as Category One sites. These will be structures or sites that have particular importance in telling the story of the Forest. The plans for these sites will not be submitted to Historic England for approval.

Category Two: Sites or structures that are locally or regionally important examples of their type that are not nationally scheduled or listed, nor identified as being of particular importance in telling the story of the Forest. These sites or structures will be protected from degradation through site management actions such as vegetation control, managing erosion or other low input site stabilisation measures. They will not have a site-specific management plan, but will be identified in Forest Plans.

Category Three: All other sites and structures that are known about by us in the Forest will be recorded on the Commission's GIS system and operational maps. As far as is practically possible, these sites will be protected from damage by Forest Operations or other works but will not receive any specific interventions to prevent their degradation through natural processes – such as erosion, decay or vegetation growth.

2 Involve members of the local community to help monitor and maintain our built heritage and archaeological features

We will look to support community engagement in monitoring and maintaining built heritage and archaeological features by facilitating appropriately trained and experienced community groups (and / or individuals) to do so. Our initial focus will be on completing the ground survey of the LIDAR points started by Gloucestershire County Council and currently being worked on by Worcestershire County Council, with volunteers through the Foresters' Forest Programme.

3 Continue investigation and research into our built heritage and archaeological features

As funds allow, we will look to expand our knowledge of known features, completing the ground testing of LIDAR results and undertaking focused archaeological investigations to further our knowledge and understanding of specific features, sites or the landscape as a whole. This work will link to the research priorities published by Gloucestershire County Council.

4 Pragmatically manage public safety through inspection and fencing

As a responsible manager of public land, we have a duty to maintain that land in a safe condition. By their nature, structures that are left to decay naturally will pose, at various times, a hazard. In the context of the Forest, there are two main categories of risk – collapse of an upstanding structure (falling masonry etc) and / or collapse of an underground structure (tunnel, mine shaft etc). To discharge our duty of care, we will ensure that structures that are deemed to pose a risk from collapse are placed upon an inspection register. As and when the risk to the public is assessed as moving from low to medium, remedial action will be taken to mitigate that risk. For category one sites, this is likely to be action to repair or stabilise the structure. For category two sites, this is likely to be stabilisation or fencing off the risk zone. For category three sites, we will normally just look to fence off the risk zone. We will actively seek to avoid demolition or removal of structures that become dangerous, but that may be unavoidable in some cases.

5 Establish a new advisory group, to be known as the 'Built Heritage and Archaeology Advisory Panel for the Forest of Dean', to assist with decision making

The sheer number of known (and unknown) sites within the Forest presents an immediate challenge for categorising. For the avoidance of doubt, all unscheduled, unlisted sites that are currently mapped by us will be deemed to be Category Three until categorised differently.

A new advisory group will be formed, to be known as the 'Built Heritage and Archaeology Advisory Panel for the Forest of Dean'. This group will provide advice to us regarding categorisation, as well as make recommendations for future works to improve the condition of, and our shared understanding of, the historic features / sites / landscape.

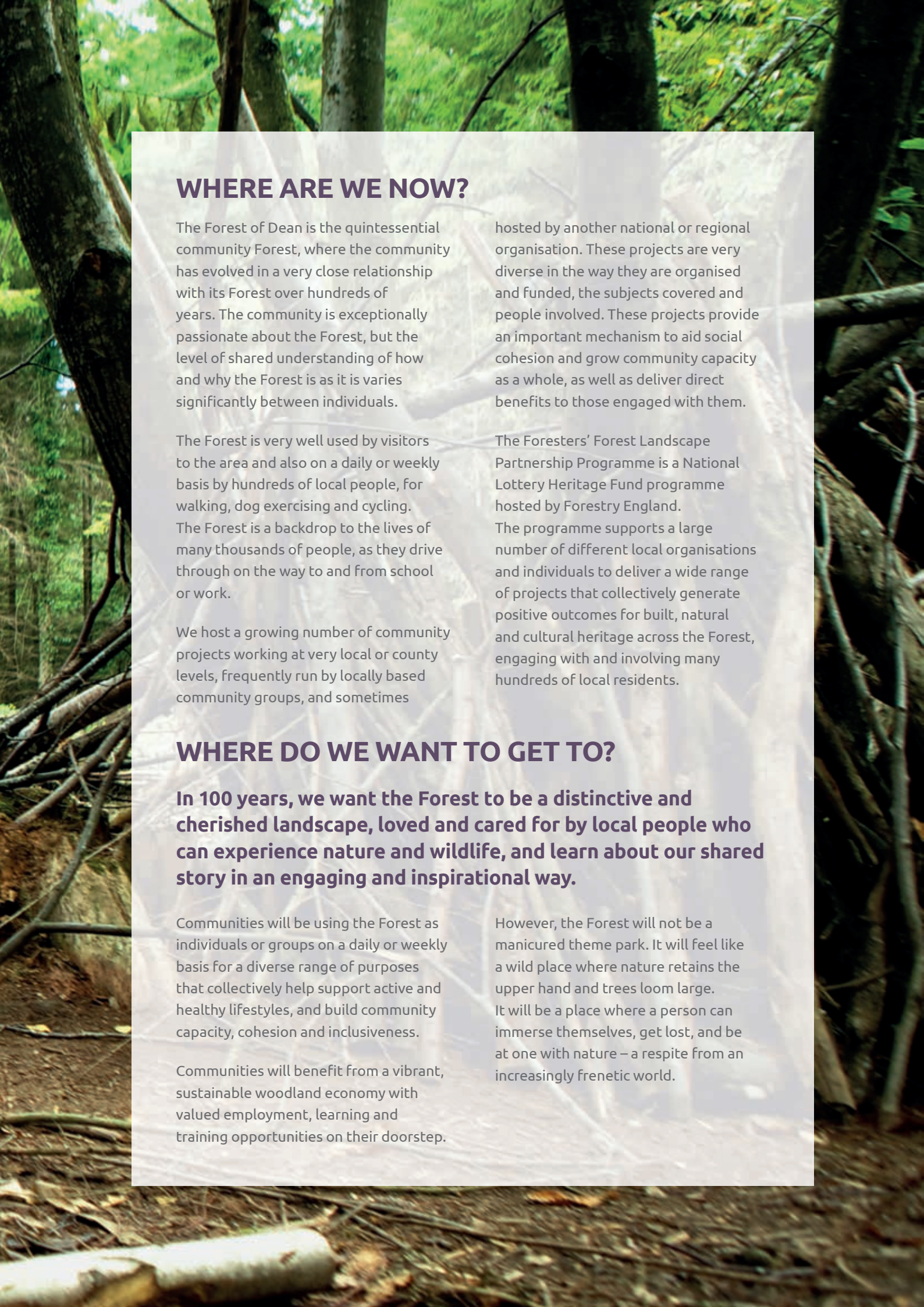
The categorisation process will need to be largely completed before the development of the more detailed Forest Plans, as it would be expected that the categorised sites will be mapped in each Plan (and the Category One Management Plans will be captured in each plan).

The Panel will support us by providing advice on site management, advice on future archaeological investigations, and support to maintain accurate recording of features on our systems.

The Panel will have representation from organisations with a statutory interest in the built or archaeological heritage of the Forest, as well as local voluntary / interest groups. This will include representation from any volunteer group that is engaged in site maintenance and monitoring for us.

These are our principles of land management to safeguard the built heritage and archaeology in the Forest of Dean.


COMMUNITY



WHERE ARE WE NOW?

The Forest of Dean is the quintessential community Forest, where the community has evolved in a very close relationship with its Forest over hundreds of years. The community is exceptionally passionate about the Forest, but the level of shared understanding of how and why the Forest is as it is varies significantly between individuals.

The Forest is very well used by visitors to the area and also on a daily or weekly basis by hundreds of local people, for walking, dog exercising and cycling. The Forest is a backdrop to the lives of many thousands of people, as they drive through on the way to and from school or work.

We host a growing number of community projects working at very local or county levels, frequently run by locally based community groups, and sometimes hosted by another national or regional organisation. These projects are very diverse in the way they are organised and funded, the subjects covered and people involved. These projects provide an important mechanism to aid social cohesion and grow community capacity as a whole, as well as deliver direct benefits to those engaged with them.

The Foresters' Forest Landscape Partnership Programme is a National Lottery Heritage Fund programme hosted by Forestry England. The programme supports a large number of different local organisations and individuals to deliver a wide range of projects that collectively generate positive outcomes for built, natural and cultural heritage across the Forest, engaging with and involving many hundreds of local residents.

WHERE DO WE WANT TO GET TO?

In 100 years, we want the Forest to be a distinctive and cherished landscape, loved and cared for by local people who can experience nature and wildlife, and learn about our shared story in an engaging and inspirational way.

Communities will be using the Forest as individuals or groups on a daily or weekly basis for a diverse range of purposes that collectively help support active and healthy lifestyles, and build community capacity, cohesion and inclusiveness.

Communities will benefit from a vibrant, sustainable woodland economy with valued employment, learning and training opportunities on their doorstep.

However, the Forest will not be a manicured theme park. It will feel like a wild place where nature retains the upper hand and trees loom large. It will be a place where a person can immerse themselves, get lost, and be at one with nature – a respite from an increasingly frenetic world.

WHAT ARE WE GOING TO DO?

Our commitments:

1 Maintain, and enhance community access points

2 Encourage community groups to work with us on meaningful and sustainable projects

3 Provide structured opportunities for volunteering across the Forest, both directly for Forestry England and through partner organisations

4 Identify quiet zones, and respect those zones through the routing of waymarked trails and management of permitted events

5 Promote responsible use of the forest by all visitors, increasing their understanding and respect for other woodland users and local wildlife

6 Mitigate the impacts of climate change and severe weather on the community

7 Tell our story – celebrate what is special about our Forest, and improve communication of what we do and why we do it

1 Maintain, and enhance community access points

Through our Forest Plan revisions, we intend to identify the more significant and heavily used access points and formally designate them as 'community access points'. We will then work to improve their visual and physical qualities to encourage greater and easier use by local people. We will seek to recruit a network of volunteer wardens who can help maintain those accesses and / or report on condition so remedial works can be scheduled. Ideally this work will be done in tandem with the Parish and Town Councils.

2 Encourage community groups to work with us on meaningful and long-lived projects

The Forest represents a large space with a myriad of opportunities for community based projects. The challenge for many such projects is sustaining a good idea to deliver positive outcomes in the medium and long term. This requires local champions to engage positively and flexibly to work through the challenges of project development with us.

We will favour those projects that support healthy lifestyles and active engagement with our cultural, built and natural heritage. We will focus our limited financial resources on supporting initiatives that reach out

to disadvantaged or otherwise excluded individuals within our community.

We accept that for some community based projects, a degree of financial return will be required to secure longevity of project outcomes. While this can be challenging for us, we will endeavour to overcome these issues to reach workable solutions that stand up to external scrutiny.

3 Provide structured opportunities for volunteering across the Forest, both directly for Forestry England and through partner organisations

We will continue to build our, and our partners', capacity to engage with a growing number of volunteers on meaningful and rewarding opportunities that will collectively support the individual in living a healthy and rewarding life, but also support the maintenance and / or enhancement of our cultural, built and natural heritage.

4 Identify quiet zones, and respect those zones through the routing of waymarked trails and management of permitted events

The concept of quiet zones or tranquil areas can only ever be a relative one as, in our increasingly busy and crowded world, fewer and fewer areas are going to be truly devoid of man-made noise. However, we can and we will use our Forest Plan process to identify areas where we will not encourage access via waymarked trails or permitted events. These may be areas of higher nature conservation value.

5 Promote responsible use of the forest by all visitors, increasing their understanding and respect for other woodland users and local wildlife

Many local people know the woods well enough to find their own way and create their own routes off the main forest roads. We accept and tolerate these desire lines and wild trails, as long as no construction takes place. A new wild trail policy will be developed in consultation with user groups. We will promote responsible use of the Forest, encouraging all visitors to better understand and respect both other woodland users as well as the needs of local wildlife, particularly in sensitive locations.

6 Mitigate the impacts of climate change and severe weather on the community

Trees and woodland will be impacted by climate change, but also play an important role in mitigating or softening the worst impacts at a local level. The principles for Water, and Trees and Woodlands will collectively mitigate against extremes of rainfall – both high and low. Trees and Woodlands act to reduce temperature at local level, and provide an element of shelter from storm force winds. Good design, and pro-active approaches to tree safety will reduce risk from falling trees in high winds, or branch drop in extreme drought. Choice of tree species, and structural diversity can be manipulated to reduce fire risk and, more precisely, reduce the risk of a ground fire from crowning (which leads to more rapid spread). We will design and manage the woodland to reduce fire risk.

7 Tell our story – celebrate what is special about our Forest, and improve communication of what we do and why we do it

We will develop and implement a new communications strategy that will actively raise awareness of the importance of the water, geology and soils, built heritage and archaeology, cultural heritage, wildlife and wild spaces and trees and woodlands in shaping the landscape, using all channels of communication to include digital media, mobile phone apps, press, face-to-face engagement, such as walk and talks, and on-site signage for the benefit of the local community, including schools, and visitors.

We will improve our consultation around Forest Plans, and interpretation of what those plans mean. We will improve our communications around specific operations to increase awareness of why we do what we do, and how to access the Forest safely.

These are our principles of land management to support community involvement.

RECREATION

WHERE ARE WE NOW?

The Forest of Dean and Wye Valley was declared as a National Forest Park in 1938, and has steadily developed as a national visitor destination. Early provision of recreation infrastructure focused on camping and hostel accommodation, picnic areas, promotion of nature trails and rambles, and scenic drives. A series of official guide books were produced during the 1950s and into the 1970s to promote the area and support visitors after arrival.

The current visitor offer is focused upon 'visitor hub sites' where car parking, café, toilet and additional facilities are provided for day visitors. All of the cafés, cycle hire provision and more adventurous charged facilities are operated by third party commercial tenants from the hub sites. These are linked to a number of waymarked walking, cycling and running routes. A specialist cycle centre is provided to focus the cycle offer of the family cycle trail and the specialist downhill trails in a dedicated facility. The 'hub sites' in the Dean (Symonds Yat, Cannop Cycle Centre, Beechenhurst and Mallards Pike) collectively support over a million day visits each year.

The hub sites are supported by a second tier of car parks, such as Cannop Ponds and Speculation, to act as both 'overflows' when additional parking capacity is required, and as facilities for local people who would prefer to use 'quieter' sites to access the Forest. Some of the second tier sites currently provide direct access on to the waymarked routes and some don't.

Overnight accommodation is provided by the Bracelands Campsite (now run by Camping in the Forest, a joint venture between Forestry England and the Camping and Caravanning Club); the Christchurch Cabin site that has evolved from a camp ground into Forest Lodges operated by Forest Holidays (a company part-owned by Forestry England); and Biblins Youth Camp (now operated for Forestry England by Woodcraft Folk, a registered charity).

The waymarked trail network has reduced over the years to lower costs, but the flagship Sculpture Trail (managed by the Forest of Dean Sculpture Trust) at Beechenhurst remains the most popular and well used of our walking trails.

While we aim to provide facilities for all users, specific provision for those with mobility needs is restricted mainly to our hub sites. Disabled access toilets, cafés and better surfaced trails are provided at those hub sites, and we encourage our tenants to make additional provisions as well.

The Forest hosts a growing number of organised events each year, ranging from national mountain bike competitions to horse riding and orienteering events. These events bring in large and growing numbers of competitors from across the country and provide additional revenues for accommodation providers and other visitor businesses in the area.

The capacity of the Forest to absorb people is huge, but, on more and more days each year, our hub sites are at – or over – capacity. This leads to crowding of car parks, queuing for toilets and cafés and conflict on multi-user trails. The capacity issues are most acute at Cannop Cycle Centre, with that site reaching capacity by mid-morning on most weekend days all year round. The popularity of the Forest as a venue for national, regional and local events also challenges capacity, and we are increasingly refusing permission for events for this reason.

We are a member of the Outdoor Recreation Network, a multi-partner body that promotes research into outdoor recreation, and establishes and shares best practice.

The area also supports a much greater array of tourist facilities and overnight accommodation providers. Wye Valley and Forest of Dean Tourism provides an excellent vehicle for networking and promotion of an integrated visitor offer. Other organisations promote a variety of guided walks and trails on the public forest estate, some with our knowledge, and many without.

WHERE DO WE WANT TO GET TO?

In 100 years, we want the Forest to be a distinctive and cherished landscape loved and enjoyed by people who can experience nature and wildlife, and learn about our story in an engaging and inspirational way.

Our facilities will be well maintained and of a quality that meets the expectations of our diverse visitor base, supporting and encouraging healthy lifestyles as people enjoy a varied range of activities.

However, the Forest will not be a manicured theme park. It will feel like a wild place where nature retains the upper hand and trees loom large. It will be a place where a person can immerse themselves, get lost, and be at one with nature.

WHAT ARE WE GOING TO DO?

Our commitments:

1 Maintain and enhance our main hub sites as the focus for day visitors to the Forest

2 Maintain and enhance our second tier car parks

3 Review and extend our network of waymarked trails for people of all abilities to walk, run or ride

4 Focus our visitor interpretation on our hub sites and core network of waymarked trails using digital technologies

5 Publish a framework for managing public events

6 Identify recreation zones around each main hub site

7 Establish a Visitor Advisory Group for the Forest of Dean

1 Maintain and enhance our main hub sites as the focus for day visitors to the Forest

We will maintain our network of hub sites (Beechenhurst, Symonds Yat Rock, Mallards Pike, and Cannop Cycle Centre) providing a consistent level of site maintenance and quality of offer so that visitors have an enjoyable, active and safe visit, connecting with nature and our heritage, and are encouraged to return.

To keep pace with visitor expectations in our modern world, we will seek to steadily enhance our sites with improvements to surfacing, signage, electric vehicle charging and car park payment systems, for example. All of our hub sites will have direct access on to the refreshed trail networks.

Our hub sites all have capacity issues, yet the simple response of expanding the number of parking spaces, café seating and toilet facilities, for example, is not sustainable in the long-term. Different approaches to managing total demand need to be considered. However, in the short- and medium-terms we will look to expand parking (and attendant facilities) at those sites we believe can sustain higher peak visitor numbers. In addition, we will critically examine new potential hub sites in the future where land currently used for purposes other than woodland or nature conservation may come forward for leisure development.

2 Maintain and enhance our second tier car parks

A second tier of car parks in strategic locations around the Forest will be maintained and enhanced to act as 'overflows' for peak periods when the hubs are full, or as alternatives for those who don't wish to use the extra facilities at the hubs. Over time, we expect all our car parks operated by us to be charged, albeit it at different rates to reflect demand and facilities provided. Our Membership scheme provides reduced parking charges for a small annual membership fee. This scheme is designed to give significant savings on parking charges for regular, local users. Second tier car parks won't

necessarily align to the trail network, although we will review the waymarked trails (see commitment 3) with the intention of linking sites where possible.

3 Review and extend our network of waymarked trails for people of all abilities to walk, run or ride

We aim to provide a network of multi-user trails that start and finish at our hub sites.

The walking trail network will be planned to provide a minimum of a short all-ability circular surfaced route on relatively level ground, and a longer circular route. We also aspire to introduce a new circular Forest Trail to be suitable for walkers and horse riders.

The waymarked downhill cycling trails will be confined to the Cannop Cycle Centre / Sallow Vallets area of the Forest, and the Family Cycling trail (and community links) will be retained largely as it currently is.

New waymarked running trails will be introduced as part of our Active Forests programme.

The trail routes will be designed to take in different Forest habitats and sites of built and cultural heritage which respect and respond to the 'quiet zones'. The trails will be supported by an interpretation strategy that utilises digital technologies, such as mobile phone apps, so visitors can learn about our natural, cultural and built heritage without reliance on traditional panels.

4 Focus our visitor interpretation on our hub sites and core network of waymarked trails using digital technologies

Our interpretation strategy will include a focus on visitors using the hub sites and formal trail network. The digital interpretation will focus on 'telling our story', and will variously cover woodland management, natural, cultural and built heritage. This will allow for seasonal changes to the messaging, and be able to respond to forest operations more flexibly. On site signage will be focused on directional and orientation signing, and 'tasters' of the story telling to encourage people to engage with the digital mediums.

5 Publish a framework for managing public events

The increasing popularity of the Forest as a venue for national, regional and local events, such as running and mountain biking, is such that a framework to guide decision making is necessary. This framework will guide decisions on event locations and routes, frequency and capacities. The framework will be published to aid event organisers arrange their events, and provide greater transparency regarding our decision making.

6 Identify recreation zones around each main hub site

To support the spatial management of the Forest, recreation zones will be identified around each visitor hub site. These zones will be managed in a more intensive way to provide a safe, welcoming gateway to visitors who are unused to visiting the countryside. However, in doing so we will work to ensure that the Forest environment is is not overly manicured.

7 Establish a Visitor Advisory Group for the Forest of Dean

This group will provide a forum to help shape delivery of facilities and event management, and improve customer services within the Forest of Dean. The terms of reference need to be developed, but we will seek representation from Wye Valley and Forest of Dean Tourism, our recreation business tenants, and user groups. In addition, the group may wish to set up smaller task groups to explore the potential around specific recreation activities.

These are our principles of land management to maintain and enhance our recreation facilities for all.

Forestry England

www.forestryengland.uk/oursharedforest