

Summary

Delamere Forest Plan (1,098.3ha) comprises of 10 main areas of woodland that lies 12km east of Chester (Delamere Forest, Primrose Wood, Abbey Wood, Thieves Moss, Hornbys Rough, Petty Pool, Abbots Moss, Lobslack Hopyards and Uplands). The Forest Plan area consists of 623ha of conifers, 202ha of broadleaves, 76ha of land managed for recreation/buildings, 70ha of tree nurseries, 34.3ha of open water and 93ha of open space. The open space comprises largely of a mosaic of open water and peatland areas which are of international important (mosses and meres) and have been designated as RAMSAR and Sites of Special Scientific Interests.

Delamere Forest and Primrose Wood lie on the Cheshire Sandstone Ridge which rises up to 176m above sea level and overlook the surrounding Cheshire plain which comprises of an aggregation of small scale agriculture predominantly grassland with pockets of arable and a strong mosaic of broadleaved and conifer plantations. A network of main roads runs through the area linking large towns and cities. Principal views are from the A54 and A556 that run between the M6, Chester and north Wales.

The main objectives for the Forest Plan (FP) are the continued production of commercial conifers and broadleaves balanced with the provision of informal recreation; the restoration of former ancient woodland sites, to manage the forest for biodiversity and to make the economic potential of the forest more resilient in the face of a changing climate, pests and diseases. The plan details management operations including felling and restocking for the next 10 years with outline proposals for the next 50 years.

The current threat to the primary conifer species in Delamere Forest Plan area from pests and diseases will lead to a diversification in species currently grown. To achieve this some of the Larch and Corsican pine stands will be removed early before they reach the end of their rotation and healthy stands will be retained beyond their economic rotation to ensure the retention of some high forest. Management will have to become more reactive in the face of current and future pests, disease and climate change to ensure it can grow the economic, social and environmental value of the forest into the future.

The FP will incorporate any features of cultural significance, trees of special interest, open habitats, mosses and meres into its design to ensure these can be maintained and conserved while forestry operations are carried out.

Forestry Operations 2015 to 2025

Neighbouring

Woodland Name	Grid Reference	Total Area (ha)	Felling (ha)	Natural Regeneration (ha)	Restocking (ha)	Open Space (ha)
Delamere Forest	SJ54747041	753	121	6	114	1
Primrose Wood	SJ54586754	99.4	9		9	
Abbey Wood	SJ56326819	11.4	0			
Thieves Moss	SJ56576922	17.1	4.4	0.4	4	
Hornbys Rough	SJ57517053	22.3	3.6		3.6	
Lobslack Nursery	SJ58517056	52.7	0			
Abbots Moss Nursery	SJ59736854	72.7	0			
Petty Pool	SJ61476989	28.6	0			
Hopyards & Uplands	SJ65477570	41.1	1.1	1	5.9	



Central Forest District - Delamere Forest Plan (FP)

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A Application for Forest Plan Approval

i Plan Area Identification:

Forest District: Central Forest District
 Beat: Delamere
 Name: Delamere Forest Plan
 Nearest Town: Chester
 OS Grid Reference: SJ 5474 7041
 Local Planning Authority: Cheshire East Council

ii Designations:

Secondary Woodlands, Ancient Woodland, Plantation on Ancient Woodland Site (PAWs), Scheduled Ancient Monument (SAM), Special Area of Conservation (SAC), RAMSAR sites, Sites of Special Scientific Interest (SSSI) and lies within the National Character Area (NCA) 61 – Shropshire, Cheshire & Staffordshire Plain and NCA 62 – Cheshire Sandstone Ridge.

iii Date of Commencement of Plan

As soon as possible once approved.

Area (ha)	Conifers	Broadleaves
Felling	151	
Restocking	150	
Underplanting in Shelterwood stands *		
Open Space	1	

** NB The 18ha refers to the net area of restocking that will take place within the next 10 years*

Total felling area 151ha

- Forest Plan maps are attached

I apply for Forest Plan approval for the area described above and in the enclosed Forest Plan.

I undertake to obtain any permission necessary for the implementation of the approved plan.

Signed

Approved

FDM

District

Conservancy

Date

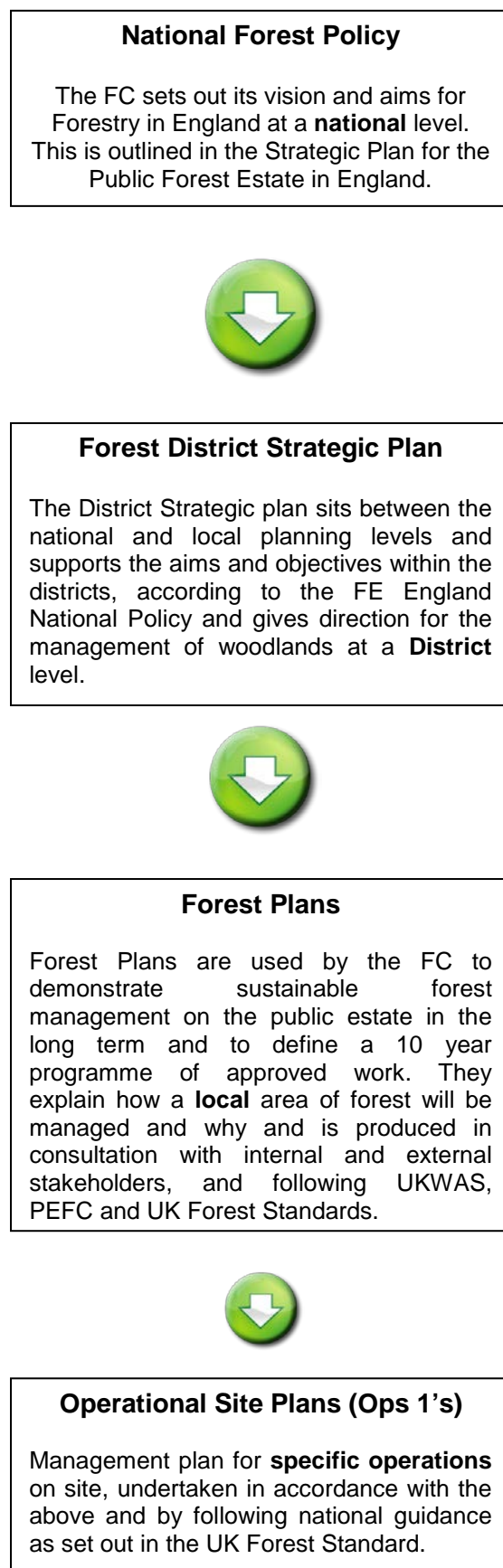
Date

1. Introduction

This Forest Plan (FP) is updating an older planting plan prepared in 2004 and provides approval for felling and restocking over the next 10 years and sets out our management proposals for the next fifty years. FP's are operational plans and although they do take into account the presence of social and environmental features, their management will be dealt with in separate documentation.

This FP's is guided and directed by a number of policies and strategies - the main documents are summarised in Fig.1. Delivering this plan will require the Forestry Commission (FC) to be responsive to shifts in our operating environment and increasingly flexible in our approach, and to sustain this responsiveness over decades to come.

.Fig 1. Forestry Commission England's Planning Strategy



1.1. Delamere Forest – Survey Data

Delamere Forest Plan (1,098.3ha) comprises of 10 main areas of woodland that lie 12km east of Chester. Delamere Forest (753ha) is the main block of woodland and contains the medieval hunting forest known as Old Pool and a collection of mosses and meres that have been designated as SSSI, SAC and RAMSAR sites due to their importance.

Delamere Forest and the outlying woodlands (Primrose Wood (99.4ha), Abbey Wood (11.4ha), Thieves Moss (17.1ha), Hornbys Rough (22.3ha) are all secondary woodlands dominated by conifer crops with limited areas of broadleaves. Petty Pool (28.6ha) is a former ancient woodland site now planted with conifers with limited areas of mature broadleaves. Abbots Moss (72.7ha) and Lobslack (52.7) are tree nurseries producing millions of seedlings each year and have limited areas of commercial timber grown there.. Hopyards and Uplands (41.1ha) is a new community woodland planted in 2002 with broadleaves and conifers. There are a few small areas of mature broadleaves along water courses that run through and around the site but in general the woodland is young and only just becoming established.

Delamere Forest is the largest wooded area in Cheshire and plays an important role in the local economy supporting a wide range of jobs directly through the timber industry and increasingly through leisure and tourism. The demand for public access into the forest for education, recreation and leisure has increased dramatically over the last 10 years and there are now over 700,000 day visitors to Delamere Forest alone.



Pic1 View of Delamere Forest from Old Pale

The Delamere Forest and Primrose Wood rise up above a flat low lying landscape (NCA 61) on a Sandstone ridge (NCA 62). Old Pale hill in the southern half of Delamere Forest forms the high point of the Mid Cheshire Ridge at 176m above sea level, from which you get a 360 degree view into seven counties (Derbyshire, Lancashire, Shropshire, Staffordshire, Cheshire and the Welsh counties of Denbighshire and Flintshire). This is a popular view point close to the visitor centre and has good surfaced trails leading up to it and on site interpretation.



Pic.2 Old Pale View Point

The underlying geology is Triassic sandstone with sands and gravels and more fertile clays on the plain. The soils provide a good growing medium and rooting depth that produce good timber yields and stand stability.

The surrounding landscape is made up of small scale agriculture predominantly grassland with pockets of arable and a strong mosaic of broadleaved and conifer plantations. The areas traditional heavy industry has now gone but the ongoing pressures of modern day development now puts the forest plan in the urban fringe with an increased need for it to deliver more diverse forest services. Liverpool and Manchester are within one hour's drive and Delamere Forest has a direct rail link into the forest and over 6 million people now live with the forest catchment.

2. Management Objectives

Economic - produce sustainable timber yields, encourage and support new and existing business activity associated to the public forest estate and to make the economic potential of our forests and woodlands more resilient in the face of a changing climate. Growing and diversifying our income from a wide range of sustainable activity on the estate, including non-forestry activities.



Environmental - To increase where possible the environmental contribution made by the Estate to the range of ecosystem services delivered and to protect and enhance its overall biodiversity and heritage value at both the landscape and local level.

Social - Enable everyone, everywhere to connect with the nation's trees and forests so that they understand their importance and act positively to safeguard forests for the future.

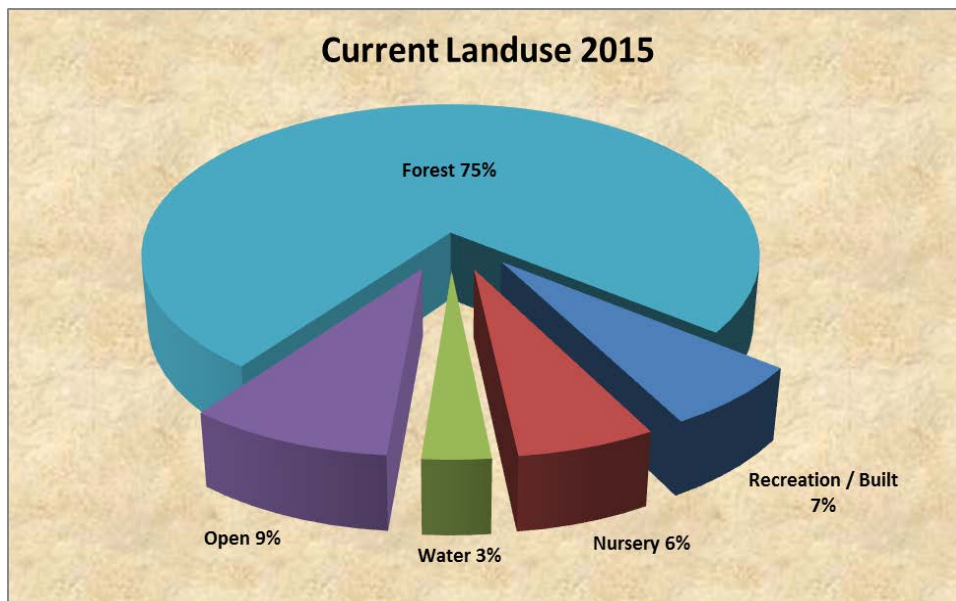


3.0 Forest Plan Objectives

3.1 Woodland

Delamere forest was first planted in 1955 on former agricultural land. The forest design now incorporates 75% woodland cover, 3% open water, 7% recreation facilities and buildings, 6% nursery's and 9% open space, Fig 2.

Fig.2 Current Landuse



Corsican pine is the most dominant species covering 356 ha and 43% of the woodland area. Broadleaves (202ha), Scots pine (182ha) and Japanese larch (49ha) are the other main species currently grown, Fig 3 and Table 1.

Fig.3 Current Species within Delamere Forest Plan

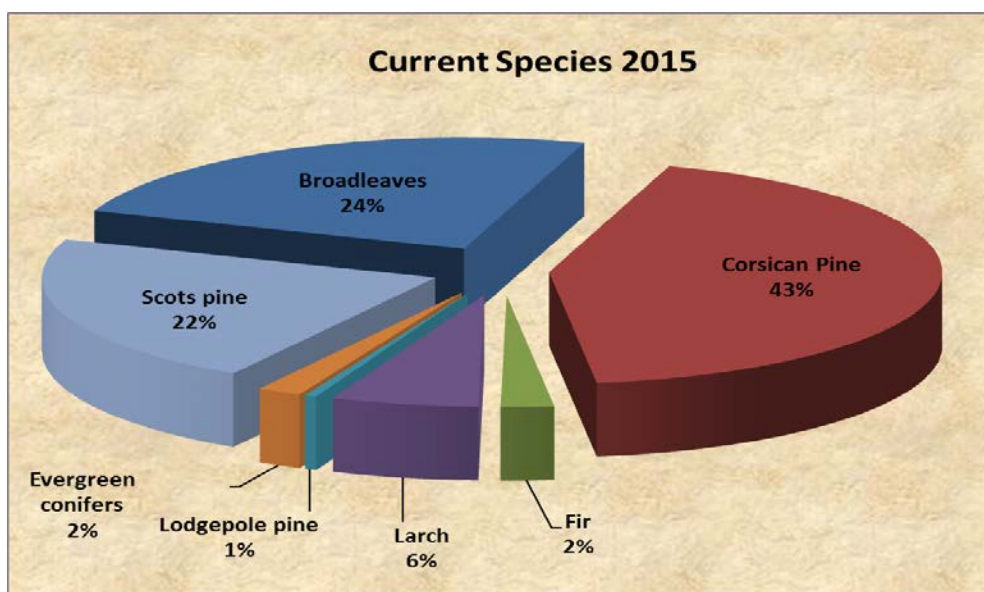


Table 1. Current Species

Species	ha	percentage
Broadleaves	202	18%
Corsican pine	356	31%
Scots pine	182.1	16%
Lodgepole pine	4.5	0%
Larch	50	4%
Fir	18	2%
Evergreen conifers	12.4	1%
Open Space (includes Rec, nursery's & Water)	273.3	28%
Grand Total	1098.3	100

Due to an active management programme the age structure across the management plan area is reasonably diverse, Fig.4. There are however still large areas, primarily in the outlying woodlands, where the crops are now reaching maturity and there has been limited felling and major restructuring now needs to begin.

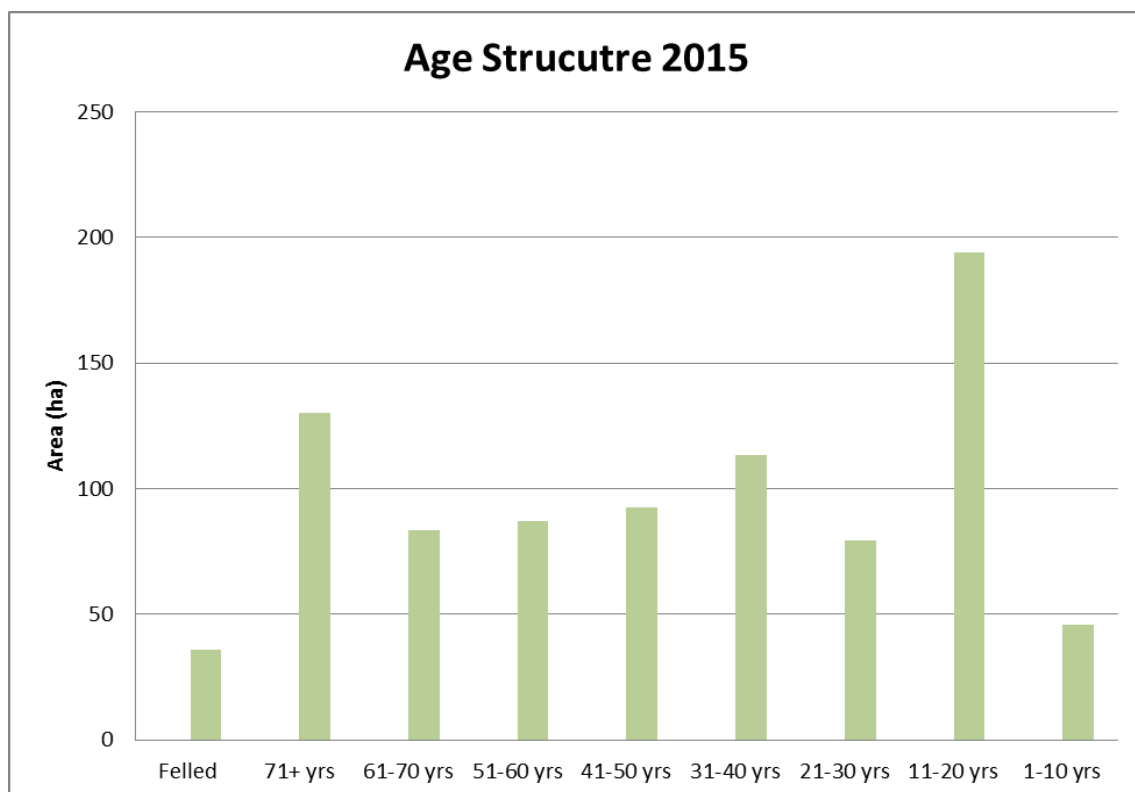


Fig.4 – Current Age Structure

Corsican pine was the most productive species in the area with an average annual yield of 15m³/annum but the fungal pathogen Dothistroma Needle Blight (DNB) is now affecting the pine stands leading to reduced yields and in some cases tree mortality. Phytophthora ramorum (notifiable disease) has now infected 2 stands of Larch within the Delamere FP

area and these have been felled. Old Pale is dominated by young Larch and the potential impact if these stands were to become infected and subsequently felled in one operation would have a devastating effect on the local landscape, access routes to Old Pale view point and the public arriving at the visitor centre.

The threat to timber production from climate change and more directly from pest and diseases is already having a major impact on Delamere Forest. To ensure sustainable timber production the present tree species will be diversified in future rotations selecting species that are more resistant to the current and increased incidence of pests and disease.

A combination of clearfell and low impact felling systems (LIS) will be used to maintain the varied forest structure the public enjoys, open up landscape views in each of the woodlands and create a pattern of transitional open space which is so important to many of the flora and fauna. The size, shape and timing of felling operations is designed to enhance the aesthetic value along the main recreation routes creating a more diverse woodland edge habitat and interlocking stand structure.

3.2 Environmental

Delamere Forest Plan contains a wide variety of habitats that support a diverse list of flora and fauna (Appendix II). The most notable of which are the meres and mosses which comprise of a mosaic of open water and peatland areas, together with fringing heathland and woodland, provides habitats for locally and nationally rare species of aquatic plants, for example planktonic algae, stands of shoreweed and narrow small-reed, as well as for a



Pic 3 Black Lake – Delamere mosses and meres

host of invertebrates, including damselflies and dragonflies such as the nationally rare white-faced dragonfly, and a diversity of beetles and spiders also including a number of nationally rare species. Many of these delicate or endangered habitats are so rare that they have been designated as Sites of Special Scientific Interest (SSSI), National

Nature Reserves (NNR) and RAMSAR sites to protect them. The Forestry Commission is working in partnership with Cheshire Wildlife Trust, Nature England, Cheshire West, Chester Council and DEFRA to restore many of these mosses and meres within Delamere Forest.

Trees of special interest and deadwood habitats will be retained wherever possible across the forest plan to create long-term retentions. Individual and small groups of character trees if identified during management operations will be retained in perpetuity to create future trees of special interest, conserving their landscape value, increase deadwood habitat and diversify the available woodland ecosystems. There are a number of broadleaves along key public routes that are surrounded by conifers. These will be gradually opened up to develop full crowns, diversify the available habitat for wildlife and become feature trees.

Woodland edge habitats will be improved as the width of roads and rides are gradually increased when felling operations take place. This will create additional space for a shrub layer to develop between the short vegetation along access routes and the adjacent high forest.

3.3 Social



Delamere Forest centre is the key access point for the public attracting over 700,000 day visits a year to the visitor centre, café, bike hire/shop, Go Ape, Delamere Outdoor Fitness and Forest Explorers. As well as informal quiet recreation activities such as walking and horse riding Delamere Forest hosts a number of large scale events each year including Forest concerts, Hell Runner and Race for Life. The current use of the site is limited by the restricted vehicle site access and despite direct rail access the demand for access by the public at peak times often exceeds the parking capacity at the visitor centre. The outlying woodlands have no formal facilities other than promoted trails for the public to use and

Pic 4 Paths around Blakemere the current demand for access into these woodlands comes mainly from local residents and dog walkers.

The Forestry Commission will continue to work in partnership to support local businesses in tourism and leisure to facilitate the growing demand for access into the countryside which generates over £2 million for the local economy each year. The Forestry Commission will explore opportunities to improve further its access and public facilities across the design plan area. See Recreation Map.

There are two scheduled ancient monuments (SAMs) in Delamere Forest (Glassworking remains & Eddisbury hill fort) which will be managed in accordance with the agreed management plan drawn up with English Heritage.

If in the future any other features of cultural significance were to be identified, these would be conserved wherever possible and where appropriate, in consultation with the Forestry Commissions Historic Environment Adviser, English Heritage and East Cheshire Council's Archaeology team.

3.4 Restocking and Future Management

Clearfell and restocking will remain an important system in regenerating the forest covering an area of 553ha and the remaining 306ha will be managed using low impact felling systems. These silvicultural systems will be refined to provide the most suitable conditions to diversify and establish future stands. The size, shape, scale and timing of felling coupes have been designed in keeping with the landscape character of the area and will enhance both internal and external views of the forest and surrounding landscape. The young Larch stands on Old Pale will be broken up through small scale clearfells. This will allow evergreen conifers to be established quickly helping to reduce the risk of any enforced felling that may arise if stands were to become infected by *Phytophthora ramorum*.

Sites due to be felled will be assessed to select the most appropriate species that will be best adapted to each site and the impacts of any future climate change whilst maintaining species diversity. No one species will dominate the future forest structure and a wider variety of species will gradually become established over the next 50 years including some mixed stands. The future forest structure within the Delamere Forest Plan will comprise of

mainly conifer species with some mixed conifer broadleaf stands. The areas of mature broadleaves will remain as broadleaved woodland while some of the more marginal areas will be restocked with conifers following felling operations. Petty Pool which is currently dominated by conifers will gradually be converted back to broadleaves as it is an ancient woodland site, see Intended Landuse maps.

The new species planted to diversify the forest will be increasing palatable to mammals compared to the Corsican pine and larch stands. A greater level of protection will be needed to ensure successful establishment, a combination of mammal control and fencing will be used achieve this.

281ha (24%) of the FP will be managed as open space, nursery, water, recreation and buildings. Woodland edges and open space will be cut periodically to create a diverse habitat which will create the appropriate micro-climates for the sites biodiversity and public use. Table 2 and Fig.5.

Table 2 Future Species Composition – 2065

<u>Species</u>	Area (Ha)	Percentage
Other Broadleaves	197.7	18%
Evergreen Conifers	604.1	55%
Open Space & Recreation	129.1	12%
Road & Rides	42	4%
Nurseries	125.4	11%
Grand Total	1098.3	100%

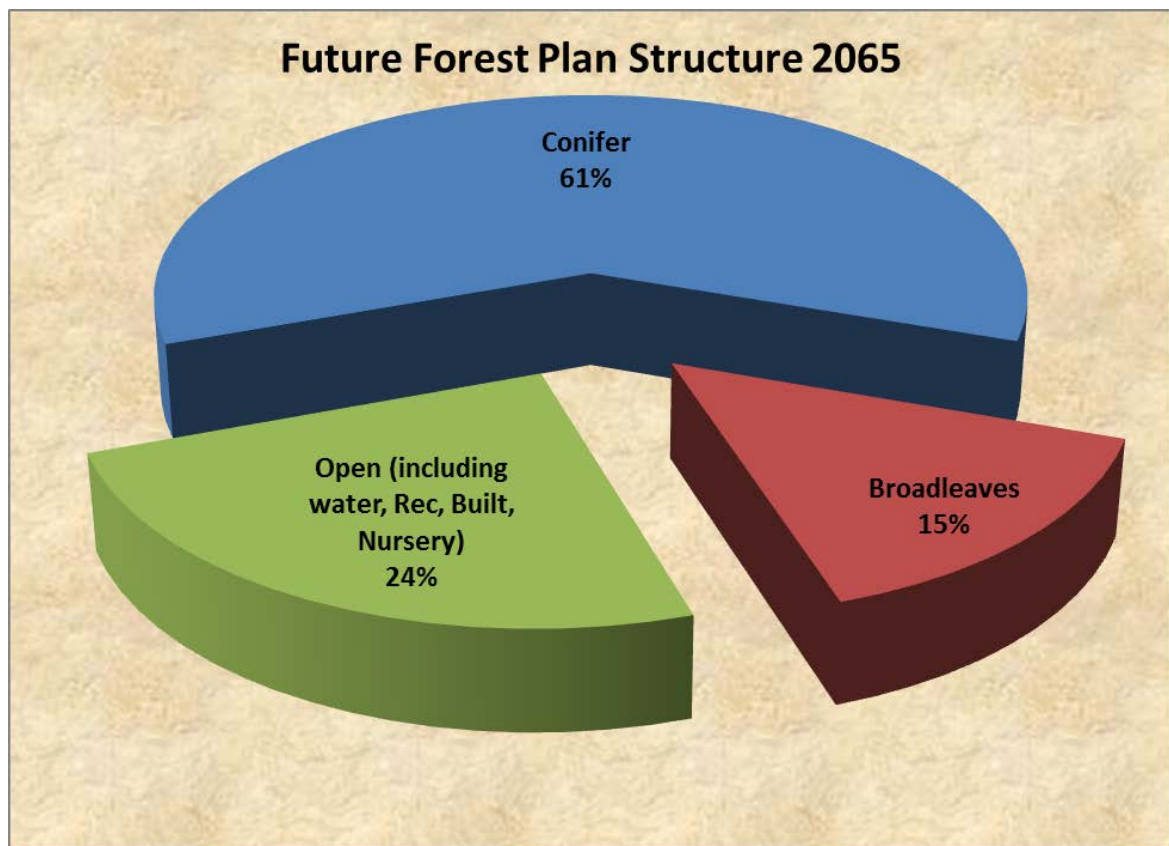
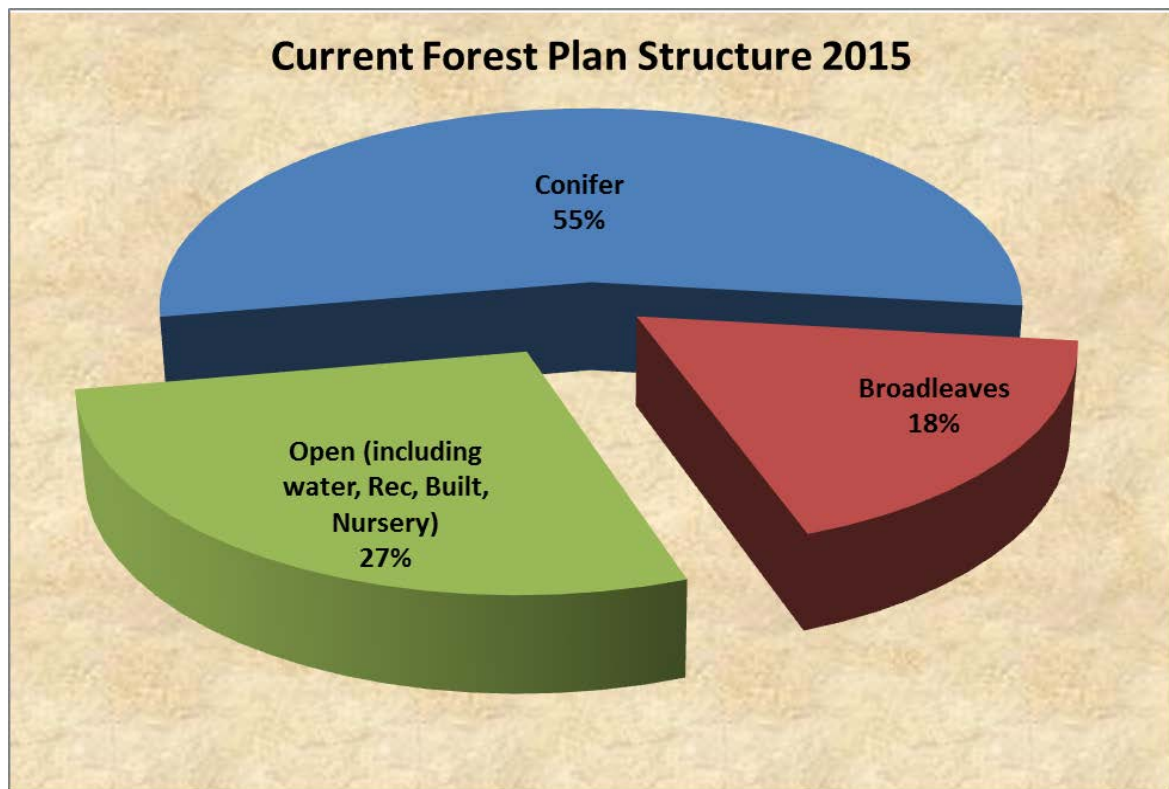


Fig.5 **Current / Future Forest Structure**

4. Meeting and Monitoring Management Objectives

Objective	Description	Proposals	Methods of Monitoring
Woodland	The woodlands will be managed to produce commercial conifer and broadleaf timber using a variety of silvicultural systems which will be chosen to aid establishment.	<p>Conifer stands will be managed to their economic rotation to maximise production. The planned fell years may have to be reviewed to respond and be reactive to the impacts of pests and disease.</p> <p>Broadleaf stands will generally be managed as high forest using a low impact felling system to produce quality timber.</p>	Monitored through Sub-compartment database.
	Dothistroma Needle Blight (DNB) is now affecting the Corsican pine stands. Phytophthora ramorum is now present in Delamere FP woodlands.	Any stands badly affected by pests and diseases will be felled early and replanted with alternative tree species that will be more resilient. If Phytophthora ramorum is identified, then as a notifiable disease, infected stands will have to be clearfelled within a short timescale.	Monitor annually by beat team and at FP review.
	Restocking and future species.	Conifer stands will be diversified using a range of species best suited to the site conditions and resilience to predicted climate change, pest and disease. Broadleaf stands will use both restocking and natural regeneration. AWS site will favour native species.	Monitored through Sub-compartment database

Objective	Description	Proposals	Methods of Monitoring
Biodiversity	The Mosses and Mere Restoration project.	The Forestry Commission will continue to work in partnership with Cheshire WT, NE and DEFRA to deliver the agreed restoration of these wetland habitats.	Monitored at FP review.
	Any BAP species and HAP features that lie within the woodlands will be identified and recorded.	Future management operations and planned recreation activities will take into account the presence of these key species/habitats and the associated legislation.	Monitor annually by beat team and at FP review.
	There is a good collection of trees of special interest (TSI) in the FP area but limited deadwood.	The TSI will be retained in perpetuity wherever possible. Potential TSI will be identified and conserved which will increase the available deadwood habitat. The current and future TSI will be surveyed and tagged.	Monitored by wildlife ranger and at FP review.
	Open space.	A varied cutting programme will be used to maintain and gradually diversify open spaces and woodland edge habitats. Felling operations will create transitional open space across the forest. The management of riparian areas will help conserve water quality and wetland habitats.	Monitored by wildlife ranger and at FP review.

Objective	Description	Proposals	Methods of Monitoring
Biodiversity	<p>Limited areas of deadwood</p> <p>Small areas to be left unmanaged to create biological retentions and to provide undisturbed areas for wildlife.</p>	<p>Standing snags will be left and individual and small groups of trees will be retained beyond their economic rotation, to become TSI and provide additional deadwood habitats.</p> <p>In areas with low demand for public access areas will be left unmanaged.</p>	<p>No monitoring required.</p> <p>Monitored through Operational Plans and at FP review.</p>
Social & Recreation	<p>The demand for access into the Delamere woodlands has increased over recent years and is set to increase further.</p>	<p>The Forestry Commission will continue to manage its recreation and education facilities to cater for the demand for access and environmental education. The Forestry Commission will continue to work in partnership with local businesses and stakeholders to facilitate the future demand for recreation and tourism.</p>	<p>No monitoring required</p>
Heritage	<p>There are 2 scheduled ancient monuments (SAM) within the FP.</p>	<p>The SAMs will be managed in accordance with the agreed management plan drawn up by English Heritage. Any other significant heritage features found will be avoided wherever possible during forest operations.</p>	<p>Monitoring at FP review</p>

5. 2015 Forest Plan comparison against the 2004 Forest Plan

The main management objectives in the new FP remain unchanged and focus on the production of sustainable conifer and broadleaved timber. The main variations will be new management coupe shapes and the timing of felling operations. These have changed to ensure as felling operations take place they fit better into the internal landscape, around recreation trails and address the health and potential threat to the current stands from both pests and disease. This will involve the early removal of some stands before they reach economic maturity and to offset the increased volume this may generate, some older healthy stands will be retained beyond their normal rotation length.

Future forest management will incorporate felling patterns that are sympathetic to the sustainable recreation and leisure interests of our partners and local businesses. The woodlands now supports a diverse range of wildlife and the new FP will continue to diversify the forest structure and available woodland habitat for biodiversity. The new FP has been designed to directly deliver a wide range of ecosystem services and helps deliver the Strategic Environmental Objectives as set out in NCA 61 and 62 through the restoration and preservation of meres and mosses, AWS restoration, increase biomass production and ensuring multiple benefits for people and place.

8. Consultees

The consultation undertaken in the preparation of this plan has been wide ranging and extensive. Full documentation including letters, notes of conversations etc. are held at our District Offices.

Consultee	Date Contacted	Date Response Received	Issues Raised	Forest District Response to Issues

***** letters were sent out to stakeholders, local residents and businesses in the area as part of the consultation exercise, signs were placed within the woodland prior to the public drop in meeting and any comments received and action to be taken or to be taken have been recorded above.				

9. Glossary

Biological Diversity

The richness and variety of wildlife and habitats.

Biodiversity Action Plan (BAP)

Describes the UK's biological resources and details the protection of these resources, including 391 Species Action Plans, 45 Habitat Action Plans and 162 Local Biodiversity Action Plans.

Biological Retention

A habitat or woodland ecosystem that will be conserved and actively managed i.e. deadwood, coppice, wet woodland, grassland.

Canopy

The mass of foliage and branches formed collectively by the crowns of trees.

Clearfell System

The removal of all trees in one operation > 0.5ha.

Compartments

Permanent management units of land within a forest, further divided into subcompartments.

Coupes

Areas of forest that have been or will be managed together.

England Forestry Strategy (now England's Trees Woodlands and Forests)

Describes how the Government will deliver its forestry policies in England and sets out the Government's priorities for the next five to ten years.

Forestry Commission Guidelines

Outline the principles and standards of good management practices in forests and woodlands to enable landowners, land managers and their advisors to satisfy

Forest Plan (FP)

An approved plan that outlines felling operation over a 10 year period, outlining proposals over the next 50 years. The FDP's are reviewed every 5 years and redrawn and approved every 10 years.

Forest Stewardship Council (FSC)

An internationally recognised body made up of non-government organisations promoting sustainable forest management to the forest industry and consumers.

Habitat Action Plans (HAP)

Habitat recognised as internationally important, for example those designated under the EU Habitats Directive; nationally or locally important.

Historic Environment

These are the physical remains of every period of human development from 450,000 years ago and include earthworks, buried remains, structures and buildings.

Landscape Character

England is renowned for its rich, diverse and beautiful landscapes which have their own distinct local character. These have been shaped over many thousands of years by natural influences such as soil and landform and by generations of human activity.

Limited Intervention

An area of stable clumps or stands of trees where forestry operations are limited to those necessary to meet biodiversity objectives, on health and safety grounds and the need to protect the surrounding forest >1% of the woodland area.

Long Term Retention

Trees that are being retained beyond their economic rotation.

Low Impact Felling Systems (LIS)

Silvicultural systems where the forest canopy is maintained at one or more level, e.g. Shelterwood, Group Regeneration, Selective Felling, Regeneration Thinnings.

National Character Areas (NCAs)

England is divided into 159 distinct natural areas. Each is defined by a unique combination of landscape, biodiversity, geodiversity and cultural and economic activity.

Natural regeneration

The growth of trees from seed found in the soil or cast from adjacent trees and shrubs.

Natural Reserve Are predominantly wooded, they are managed under minimum intervention unless alternative management systems have high conservation or biodiversity value.

Operational Plans (Ops1)

Detailed site plans that are prepared in advance of all major forest operations and identify site constraints, opportunities and areas requiring special treatment or protection.

Restocking

The re-establishment of trees where felling has taken place. Restocking may be achieved through natural regeneration but as a term, it is more usually associated with replanting.

Scheduled Ancient Monuments (SAM)

Nationally important archaeological sites which are protected under the Ancient Monuments and Archaeological Areas Act, 1979.

Secondary Woodland

Woodlands that have been established on land that was formally used as pasture, meadows, arable, quarries etc and has not continually been wooded.

Selective Felling

Where individual trees of varying sizes are selected and removed from a stand. The whole stand is worked and its aim is to maintain full stocking of all tree sizes and ages, from seedlings to mature trees, in any one area.

Silvicultural Systems

Techniques of managing a forest through a variety of cutting / felling patterns and time scale.

Sub-compartments

Areas of forest comprising a more or less homogeneous crop in terms of age, species composition and condition. Their boundaries may change as the forest develops after felling and restocking.

Strategic Plan

Serves as a guide to the management of woodlands within Central England Forest District. It divides the district into zones for the purpose of management and ensures that forestry activities reflect the local ecological, social and cultural individuality of woodland. Strategic objectives for each zone are presented within the context of the Government's strategic priorities for forestry in England (e.g. forestry for rural development; forestry for economic regeneration; forestry for recreation, access and tourism and forestry for the environment and conservation).

Thinning

The removal of a proportion of the trees in a sub-compartment to improve the quality of the remaining trees, accelerate individual tree growth and provide income.

UK Forestry Standard (UKFS)

Outlines the Government's criteria and standards for the sustainable management of forests in the UK.

UK Woodland Assurance Scheme (UKWAS)

A voluntary scheme for the independent assessment of forest management in the UK. The Scheme has been developed by a partnership of forestry and environmental organisations in response to the growing consumer demand for timber products from sustainably managed forests. It has been designed to ensure that it reflects the requirements of both the Government's UK Forestry Standard - and through this the guidelines adopted by European Forestry Ministers at Helsinki in 1993 - and the Forest Stewardship Council's (FSC's) GB Standard.

Trees of Special Interest (TSI)

A tree that is of interest biologically, aesthetically or culturally because of its age, or a tree that is in the ancient stage of its life, or a tree that is old relative to others of the same species.

Yield Class

Yield class is a measure of the growth rate of a tree crop and is the maximum average rate of volume increment (increase) that a particular crop can achieve. For example, a crop capable of a maximum annual increment of 14 m³ per hectare has a yield class of 14.

Appendix I

The Delamere Forest Plan Brief

Delamere Forest Design plan comprises of 10 separate woodlands (Delamere, Primrose Wood, Abby Wood, Thieves Moss, Hornby's Rough, Lobslack, Abbots Moss, Petty Pool, Hopyards & Uplands) which lie between the villages of Delamere and Northwich, Cheshire. The design plan area covers 1,098.3ha of woodland which is currently stocked with 56% conifers, 19% broadleaves and 25% open ground. The woodland structure is quite diverse, with most of the stands being planted in the 1950s and 1960s widespread harvested and restocking has been underway for the last 20 years. The design plan area is historically secondary woodland (97%) with 1% designated as an ancient woodland site (AWS) and 2% plantation on an ancient woodland site (PAWS). The main influences on the future management will be the production of commercial timber, the conservation wetland habitats, provision of informal recreation, restoration of the PAWS back to AWS, management of open space and associated habitats that support the many unique flora and fauna found within the woodlands. The Delamere landscape character forms part of the Cheshire Sandstone Ridge which has a mosaic of broadleaved mixed woodland comprising of ancient woodland and some post medieval conifer plantations. Remnants of a Royal Hunting forest survive in Delamere main block and Old Pale was a medieval deer park. The landscape is punctuated by numerous ponds and meres which form the largest and most important grouping of lowland wetlands in England and is of international importance.

Environmental Issues

- Delamere's meres and mosses form part of a group of internationally important series of wetland habitats some of which have now been designated as SSSI and RAMSAR sites. The restoration of Delamere's meres has been underway during the last plan period (2004-2014) and the Forestry Commission will continue as part of the Mosses & Mere Wetland Partnership to consolidate the restoration work underway and where appropriate explore the possibility of further restoration projects.
- Remnant AWS areas will be managed through low impact felling systems where practicable to minimise the impact future felling operations have on the woodland ecosystem and provide a valuable seed source.
- Some areas of woodland will be managed as biological retentions and all commercial forestry operations will cease. Future management will be carried out

to try and maintain the woodland's microclimate required by some of the rare lichen and mosses found there.

- Wet woodland habitats and riparian areas will be managed to increase the indigenous species and reduce the risk of siltation into the local watercourses.
- Areas of open space will be managed sympathetically to increase the current woodland edge habitat and biodiversity.
- Trees of Special Interest (Veteran trees) are scattered throughout many of the woodlands and form avenues along many of the public roads and forest trails. These will be mapped and conserved as part of the design plan process and ongoing management. Additional notable trees and small groups of both conifers and broadleaves will be identified and retained as long-term retention's to provide the next generation of veterans.
- Deadwood habitats are limited within the woodland areas and future forest management will retain wherever possible snags and laid deadwood habitats.

Social Issues

- The Delamere Woodlands are visited annually by over 700,000 visitors. Visitors are made up of local residents as well as day trip visitors and people on holiday in the area. The number of people who come to enjoy the woodlands and network of paths and bridleways in the area has increased steadily over the last few years.
- Tourism is of increased value to the local economy and the woodlands are a key component of the local landscape that attracts people into the area.
- The Delamere Forest provides a café, visitor centre, bike hire, events area and draws visitors into the forest from across the region.
- The woodlands retain a wide variety of historical features that link the forests back to medieval times. These features will be conserved wherever possible providing a link into the past for visitors to the forest of man's changing land uses.
- There are a number of key viewpoints in the local landscape and these will influence the scale and timing of felling operations. Internal viewpoints will be managed to maintain the aesthetic value the woodlands provide visitors and local communities.
- Increase pressure from public access is likely to occur in the future and forestry operations will try to facilitate this wherever possible and help minimise their impact on the woodland ecology.

Economic Issues

- Corsican Pine and Scots Pine are the primary commercial conifer species grown covering 52% of the design plan area and comprising of 80% of the conifers grown in the FP woodlands. The conifer stands produce yields of between 8 and 22 with a mean yield class of 15 and broadleaves an average yield of 5.
- Broadleaf stand currently cover 18% of the design plan area (202ha) of which approximately 25% is managed for conservation rather than commercial timber production.
- Corsican pine is the dominant species in Delamere Forest and this is now being affected by Dothistroma Needle Blight (formally Red Band Needle Blight), a fungal disease that defoliates the trees, leading to a significant loss in production and in some cases mortality. Phytophthora ramorum has now been identified in larch stands in Petty Pool Wood and as a notifiable disease, these stands have to be clearfelled within 6 months. If Phytophthora ramorum becomes more wide spread it could have a major impact on Old Pale where larch is the dominant species.
- In future rotations, sustainable timber will remain a principal objective for 68% of the design plan area whilst meeting all the above environmental, social and economic objectives.
- Restocking of AWS and PAWS will be encouraged through natural regeneration of mixed broadleaves favouring native broadleaves that are characteristic of the woodland type. Where resources are available, and if there is a need, some enrichment planting will take place using broadleaves.

Consultation Issues

- Due to the large numbers of visitors to the woodlands and surrounding area and the close proximity of the local villages a Public 'Drop in Meeting' will be held in Delamere Forest on Tuesday 30 June 2015 from 3.30pm to 7.30pm. Notices will be posted on site to inform users of the forest about the meeting and where they can comment on the plan.
- Landowners, neighbours, Council, Natural England, local authorities and other relevant public bodies will be contacted by letter to allow them to comment on the plan, inform them of the meeting and make the Forestry Commission aware of any data sets they may have for the woodlands.

- The Forest Plan will be made available online for the public and stakeholders to view and comment on.
- The Forestry Commission's Woodland Officer will be closely involved in the plan development.
- The consultation period will run until 10th July 2015.

Appendix II

Key Features Habitats and Wildlife

The table below identifies a number of the key features found in Cannock Forest, their status and stakeholders who have been involved in the surveillance and management.

Key Feature	Status	Partners
Meres and Mosses	RAMSAR, SSSI	Cheshire WT, NE, DEFRA
Adders	BAP	
Argent Sable moths	BAP	Butterfly Conservation
Nightjar	BAP	Midlands bird group
White-faced dater dragonfly	BAP	Cheshire WT
Great crested Newts	EPS	
Bats	EPS	
Wet woodland	HAP	
Ancient Woodland	HAP	
Trees of special interest	HAP	

Species records for the Area		
Birds	Tree sparrow Whinchat Willow tit Willow tit Yellow wagtail Yellow wagtail Corn bunting Curlew Grasshopper warbler Grey partridge Lapwing Lesser spotted woodp Marsh tit	
Plants	Planktonicalgae, Shoreweed Narrow small-reed Sphangnum moss Sundew	

	Cotton grass Royal ferns	
Mammals	Badgers	
	Sundew	
Insects	jumping spider	<i>Sitticus floricola</i>
	Large White	
	Small White	
	Brimstone	
	Speckled Wood	
	Peacock	
	Green-veined White	
	Orange-tip	
	Devon Carpet	<i>Lampropteryx otregiata</i>
	Grey Pine Carpet	<i>Thera obeliscata</i>
	Canary-shouldered Thorn	<i>Ennomos alniaria</i>
	Red-green Carpet	<i>Cloroclystasiterata</i>
	Snout	<i>Hypena proboscidalis</i>
	Pinion-streaked Snout	<i>Schrankia costaestrigalis</i>