

Delamere Forest Design Plan



Text & Graphs

Autumn 2011



Contents

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The plan is presented in four separate sections:

- Text
- Viewpoint Photos
- General Photo Survey
- Maps

The process by which this plan has been developed is characterised by three main stages:

- 1) Understanding Delamere Forest
- 2) Developing a vision
- 3) Implementing the vision

The Viewpoints and General Photo Survey principally reflect the first two stages in the process whilst the maps and text describe the full process. The table below illustrates the way that the various maps, photos and text fit into the stages in the process and helps guide the reader through the plan.

Understanding Delamere Forest Park	<p><i>Text</i></p> <ul style="list-style-type: none"> • Introduction • Survey • Achievements during last plan period
	<p><i>Maps</i></p> <ul style="list-style-type: none"> • Location • Photo Survey Viewpoints • Current Forest Species • Recreation & Access • Community • Water, Heritage & Nature Conservation • Wind Hazard Class & Soils • Roads & Harvesting • Landform Assessment • ESC Native Broadleaved Species • ESC Conifer Species • Achievements
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Developing A Vision	<p>Text</p> <ul style="list-style-type: none"> • Review & Appraisal
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Implementing the Vision	<p>Text</p> <ul style="list-style-type: none"> • Objectives of the Plan • Delivery of the North West England Forest District Strategic Plan • Delivery against DEFRA Independent Panel on Forestry • Graphs
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Vernon Stockton/Sharon Rodhouse
Autumn 2011

Introduction

Delamere Forest is situated in Central Cheshire approximately 12km from Chester and within an hour's drive of Manchester, Liverpool and North Wales. Owned & managed by the Forestry Commission the forest provides valuable wildlife habitats with much needed green space and a variety of recreational facilities for the residents of urban Chester, Liverpool & Manchester.

The forest design plan (FDP) includes:

- Delamere Forest - 753 hectares (ha) of predominantly pine woodland interspersed with self seeded birch and small pockets of older mature broadleaves
- Primrose Wood – 99ha of predominantly pine woodland, recent mixed conifer planting and smaller numbers of broadleaves
- Abbots Moss & Lobslack Nurseries – 73ha and 53ha respectively FC tree nursery sites with mixed conifer and mixed broadleaves on the fringes
- Thieves Wood – 17ha of pine & birch
- Hornbys Rough – 22ha of larch & pine with smaller numbers of broadleaves
- Hogshead Wood – 31ha of mineral worked land with mature pine & broadleaves at the southern end. The site is due to be handed back to the Forestry Commission soon.
- Abbey Wood – 11ha of larch, pine & sweet chestnut.

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- Pettypool Wood – 29ha of pine & smaller amounts of mixed conifer & broadleaves which is also a Plantation on Ancient Woodland Site

The first forest design plan was approved in 2004. For the first time the design plan includes Hornbys Rough & Hogshead Wood.

Survey

The forest is not highly visible in the surrounding fairly flat and level landscape apart from Old Pale which occupies a small hill. From this summit it is possible to get one of the few good views of the forest and also stunning views of the surrounding wider landscape. Primrose Wood is visible from the A57 and A556. First impressions on arrival at Delamere Forest are of grand, mature pines, old gnarly oaks and spreading sweet chestnuts. Historically, woodland management has been by means of small scale clearfells producing a characteristic 'patchwork quilt' effect best seen from Old Pale.

Receiving in excess of 750,000 visitors each year, the forest hosts the hugely popular TRACs cycle hire, Delamere Cafe & Go Ape!, formalised events such as Live Music each summer, Hell Runner, Race for Life and Christmas tree sales as well as a comprehensive and well maintained network of way marked tracks and trails for walkers, horse riders and cyclists.

Across the outlying woodlands and Old Pale Community Woodland, levels of public use are reasonably low, being used mainly by local dog walkers and horse riders.

Delamere Forest is also connected to a number of local businesses, helping to support the local economy for e.g. through franchises such as Go Ape! and by drawing overnight visitors who use other local facilities such as guesthouses, caravan parks and restaurants.

The thinning programme has continued as planned and as a strategy to deal with band needle blight, a disease which has infected most of the Corsican pine and to a lesser extent, the Scots pine. This poor growth has resulted in increased light levels for birch to grow throughout the pine.

In terms of conservation, the meres & mosses, a group of wetlands comprising hollows, ponds & peatlands that pepper the wider Delamere area, form the most important consideration. This valuable habitat, formed at the end of the last ice age some 10,000 years ago. They are nature's own carbon reserves and support important habitats and species including the rare white faced darter dragonfly last seen at Black Lake moss in 2003. A programme of rewetting has been underway for several years by clearing conifers and blocking ditches. Ongoing works include clearing self seeded birch and willow and controlling bracken and rhododendron.

Abbots Moss, Black Lake and Linmer Moss and are mosses and meres that are designated Sites of Special Scientific Interest because of their valuable habitats and species. The first two are managed by Cheshire Wildlife Trust.

Pettypool Wood is a Plantation on Ancient Woodland Site (PAWS) which is adjacent to Pettypool SSSI. It is undergoing a gradual restoration to native woodland by phased removal of conifer species.

Primrose Wood has a pair of breeding nightjars which have nested on the clearfell/restock sites for the last few years. The wider woodlands support the usual birdlife, raptor and mammal species.

Elevation ranges from 50 m to 170 m above sea level at Old Pale. Exposure is low throughout most of the woodlands with the exception of Old Pale which is the major landscape feature. Soils are mainly brown earths with pockets of deep peats and peaty gleys. The combination of largely good soils and low exposure mean that the forest is suitable for transformation to continuous cover forestry (CCF). Some underplanting of Douglas fir has been carried out, and across most of the woodlands where conditions are suitable, there is prolific birch regeneration.

Achievements during last plan period.

There are no previous plan objectives. Achievements since the 2004 FDP are listed below.

- A programme of re-wetting of the mosses and meres has been ongoing by gradually clearing conifers and blocking ditches. Work continues to clear self seeded birch, willow and other scrub
- A sustained rolling programme of thinning of Corsican pine has been prioritised following Forest Research Guidelines for the management of red band needle blight (RBNB). This aims to increase airflow around the infected trees to try to lessen the impact of infection and increase growth rates as much as possible
- A recommended trial of restocking with *Pinus pinaster* has been carried out as part of the North West England Forest District RBNB management plan
- Continuous cover forestry management has been initiated through several small areas of underplanting with Douglas fir in a mature open canopied pine stand in Primrose Wood
- The network of waymarked forest tracks, trails and associated maps has been reviewed and upgraded
- The bike skills area has been redeveloped
- Significant areas of pine have been felled from around the nurseries
- The Delamere franchises TRACs cycle hire, Delamere cafe and Go Ape! have been established and are successful business ventures
- The events amphitheatre was opened in its current guise in 2005 and has hosted 'Live Music' every summer since
- Recreational facilities and infrastructure have continued to develop and expand notably car parking
- The landmark 'Old Pale Stones' have been erected on Old Pale Summit
- At Pettypool Wood, a Plantation on Ancient Woodland Site (PAWS) which is also adjacent to Pettypool Brook Site of Special Scientific Interest (SSSI) conifers have been thinned out specially around existing broadleaves as a step toward the restoration of the ancient woodland site.

Appraisal

As visitor numbers have increased so have the recreational facilities on offer. This expansion has been somewhat ad hoc and it is acknowledged that a co-ordinated approach is required to transform the forest into a regional hub. The Delamere Project, set up to achieve these aims is currently underway.

The impact of RBNB and the thinning programme which aims to lessen the effects of the disease has resulted in an open canopy of spindly pine enabling profuse regeneration of birch across much of the forest and some of the satellite woodlands. In some areas this mix of different tree species provides a more visually diverse and interesting visitor experience when walking through the forest. In terms of a timber resource, quality and volume are greatly reduced and choices for restocking are restricted to those species which are deemed to be less susceptible to the effects of the disease. Restock sites have recently been planted with Douglas fir, larch and Maritime pine

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aiming to increase diversity and therefore reduce susceptibility to disease through reliance on only one or two species.

Most of the pines have been cleared from around the Abbots Moss & Lobslack tree nurseries because of infection from RBNB and the need to prevent its spread to the young tree seedlings being grown on in the nursery beds. Removal of remaining pine trees is necessary and now also larch because of the tree disease *phytophthora ramorum*. This is planned for the next few years.

Continuous cover forestry management is being trialled in Primrose Wood through underplanting of Douglas fir in an open canopy of mature pine, some areas fenced, and some unfenced, planted directly into the ground following bracken disturbance. Working both with the extensive broadleaved regeneration to be found within the pines and considering use of under planting of different conifer species, continuous cover forestry could also be applied much more extensively across the forest where appropriate.

The meres and mosses restoration programme has made significant improvements to this important habitat through removal of conifers and blocking up of ditches. This work needs to continue by rewetting of the remainder of the meres and mosses identified in the 'The Lost Meres & Mosses of Delamere' report 2003, including creation of corridors to link some of the individual sites. Some rewetted areas now have profuse birch and willow scrub regrowth which will need to be controlled.

Identifying appropriate sites for conversion to lowland heathland, another valuable habitat, is also a priority. One such area adjacent to Hatch mere SSSI which has had all the trees removed has already been earmarked and the aim is to manage through cattle grazing.

The gradual removal of conifers and encouragement of broadleaved regeneration in Pettypool Wood needs to continue to work toward the restoration of this ancient woodland site. This will also contribute toward favourable conditions in and around the SSSI.

Both Thieves Wood and Hornbys Rough have access issues which need to be addressed prior to planning future forestry operations.

Hogshead Wood is due to be handed back to the Forest District following extensive mineral extraction works and will require closer looking at with regard to design and management planning.

While the subcompartment database has benefitted from updating at the point of ground surveying for this forest design plan review, it would be advisable to prioritise future survey work to further increase the level of accuracy. Soil surveys are required for Old Pale Community Woodland, Hornbys Rough and Hogshead Wood which would also enable wind hazard classifications to be determined for these areas.

Objectives of the Plan

Ongoing

- Manage all work in accordance with the District Strategic Plan, DEFRA Independent Panel of Forestry and the UK Woodland Assurance Scheme
- Consult and inform stakeholders, visitors and the local community about the ongoing and future management of the forest through local meetings, regional website and temporary information signing where appropriate
- Monitor levels of natural regeneration and manage accordingly
- Take into account developing advice on adapting to and mitigating against the impacts of climate change

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The next 5 years

- Achieve the proposed felling and restocking plan
- Initiate CCF regeneration plan by individual strata, monitoring regeneration levels & underplanting with suitable conifer species where appropriate taking the opportunity to trial less familiar species to increase diversity
- Develop & formalise the Delamere Project to deliver identified aims & objectives for sustainable recreational usage & high quality recreational facilities
- Protect, maintain & enhance the meres & mosses, SSSI's, lowland heath & archaeological interests
- Develop profile of Old Pale Community Woodland to encourage usage
- Ensure safety and usability of forest track, trail & road network
- Look to develop niche markets for various timber products e.g. respond to an increasing demand for firewood by sustainably harvesting the birch that regenerates prolifically across the woodlands.
- Update the SCDB & obtain missing soils data
- Develop plan for Hogshead Wood following hand back from mineral works

These objectives are further explored in the following maps:

- Future Woodland Management
- CCF Plan Management
- Future Access, Community, Health & Wellbeing
- Future Nature, Conservation & Heritage
- SSSI Plan Management
- Planning for Climate Change

Delivery against the North West England Forest District Strategic Plan

Delamere Forest lies within the South Lancashire/Greater Manchester/Merseyside/Cheshire management zone of the North West England Forest District Strategic Plan (NWEFDSP) (2010 to 2014). Within the general description for this zone the Strategic Plan makes the statements below which are relevant to this plan.

- Manage Delamere so that it becomes an exemplar of a well managed mature forest in the community forest area, with regular thinning, well maintained footpaths etc
- Recreation provision and events (Christmas trees and concerts) at Delamere will help promote rural Cheshire as a destination and contribute to the local economy
- Through development and implementation of the Delamere Project significantly grow the direct tourism revenue to the FC and increase support of the local economy
- Restore the meres and mosses at Delamere through implementation of the Forest Design Plan

Detailed over the page are the objectives of the South Lancashire/Greater Manchester/Merseyside/Cheshire management zone (highlighted in blue), and how the implementation of the revised Delamere Forest FDP will deliver against the objectives.

Quality of Life

Manage Delamere so that it becomes an exemplar of a well managed mature forest in the community forest area, with regular thinning, well maintained footpaths etc..

Encourage responsible use and a sense of ownership by the local communities for the new community woodlands which have been created over the last 10 years.

Seek opportunities to further develop the potential of the new community woodlands through external funding and partnerships.

Implemented through

- Widespread transformation to CCF dividing Delamere forest into strata based on age classes, accepting broadleaved regeneration and underplanting with a mix of conifer species aiming for a diverse forest structure in terms of age class and species.
- Five yearly interventions prioritising thinning and crown thinning, frame tree marking and monitoring levels of regeneration, success of underplanting and response of pine to CCF management in light of RBNB infection
- Avoiding restocking with conifer species susceptible to or with the potential to act as host to RBNB or *phytophthora ramorum* – a disease currently of concern to larch. In particular avoiding Corsican/Lodgepole/Scots pine and Japanese/European/Hybrid larch
- Continuing with the programme of regular reviews and upgrades of the network of forest tracks, trails and associated maps and waymarkers ensuring safety and usability of the entire network
- Encouraging visitors to access Old Pale Community Woodland. This will in turn reduce some of the visitor pressure in the other parts of Delamere more traditionally used
- Maintaining access points and forest roads to ensure safety and usability advising visitors of pending/underway forestry operations

Natural Environment

Restore the meres and mosses at Delamere through implementation of the Forest Design Plan.

Develop the nature conservation potential of the new community woodlands, particularly through management of the open land component.

Implemented Through

- Working closely Natural England, Cheshire Wildlife Trust and Habitats & Hillforts Landscape Partnerships Scheme accessing funding where appropriate to continue the management prescribed through the 'The Lost Meres & Mosses of Delamere' report 2003
- Maintaining and enhancing the rewetted meres and mosses by controlling regrowth of birch and willow scrub, rewetting the remainder of the sites identified in the 2003 report through conifer removal and blocking of ditches and creating habitat corridors linking identified sites
- Reducing the level of shading along the southern edge of Black Lake SSSI optimising the habitat for the white faced Darter dragonfly prior to its reintroduction

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- Maintaining the level of cattle grazing in the open spaces across Old Pale Community Woodland and ensuring rides and forest roads are kept open and managed for the butterfly populations

Business and Markets

Recreation provision and events (Christmas trees and Concerts) at Delamere will help promote rural Cheshire as a destination and contribute to the local economy.

Through development and implementation of the Delamere Project significantly grow the direct tourism revenue to the FC and increase support of the local economy.

Implemented through

- Ensuring the annual Christmas tree sales and 'Live Music' events are well prepared, prioritised and promoted
- Continuing to host other recreational events such as Hell Runner and Race for Life, always being alert to future potential opportunities
- Maintaining excellent working relationships with established franchises e.g. Go Ape! and being alert to other future potential opportunities
- Continuing to prioritise and support the development and implementation of the Delamere Project

Delivery against National Policy: DEFRA's Independent Panel on Forestry

'A Strategy for England's Trees, Woods and Forests' (ETWFS) was replaced in 2011 by DEFRA's Independent Panel of Forestry as the core policy for forestry in England. The strategy states "Domestic forestry has a key role to play in meeting the government's priorities" and has the following three themes:

- supporting and developing British farming and encouraging sustainable food production
- helping to enhance the environment and biodiversity to improve quality of life
- supporting a strong and sustainable green economy, resilient to climate change

Detailed below are the three themes of the Panel (highlighted in blue) and how the implementation of the revised Delamere Forest FDP will deliver against the objectives.

Supporting & developing British farming & encouraging sustainable food production

Implemented through

- Providing high diverse recreational facilities drawing in visitors and supporting the local economy.
- Working with local companies and local food producers at formal events

Helping to enhance the environment & biodiversity to improve quality of life

Implemented through

- Continuing to manage the forest so that it is well thinned with open road and ride edges and a pleasure to visit, providing much needed green space
- Widespread implementation of CCF to create a more diverse forest in terms of structure, species and age class
- Continuing the programme of rewetting Delamere's meres and mosses
- Working in partnership to protect and enhance the SSSI's
- Creating and maintaining an area of lowland heathland adjacent to Hatch mere and identifying future suitable areas
- Maintaining open spaces and wide open rides in Old Pale Community Woodland
- Continuing the PAWS restoration work in Pettypool Wood
- Considering the pair of nesting nightjars when planning forestry operations in Primrose Wood
- Preserving Eddisbury Hill Fort and Glaziers Hollow
- Enhancing riparian habitats by removal of exotics such as conifers
- Protecting the veteran broadleaves and increasing areas of broadleaves by encouraging regrowth along road and forest edges, and accepting advanced regeneration within areas of failing pine
- Continuing to use temporary signing as ways of updating the local community of operations and activities
- Providing the FDP in adobe acrobat format through a website page dedicated to this forest
- Continuing to provide a low level of informal access across quieter parts of the forest and the satellite woodlands
- Basing the FDP process around understanding the importance of sense of place

Supporting a strong and sustainable green economy, resilient to climate change

Implemented through

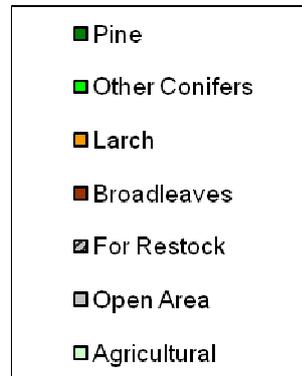
- Use of ecological site classification to plan choice of future woodland species
- Exploring woodfuel markets to sustainably harvest the profuse birch regeneration
- Exploring opportunities of working with the local community to increase the use of woodfuel
- Exploring niche markets for the birch regeneration such as local coppice merchants
- Preference for employing local contractors where possible
- Offering diverse recreational facilities which attract visitors to the area and support the local economy
- Working to develop public transport links to the forest as an alternative to car use

Graphs

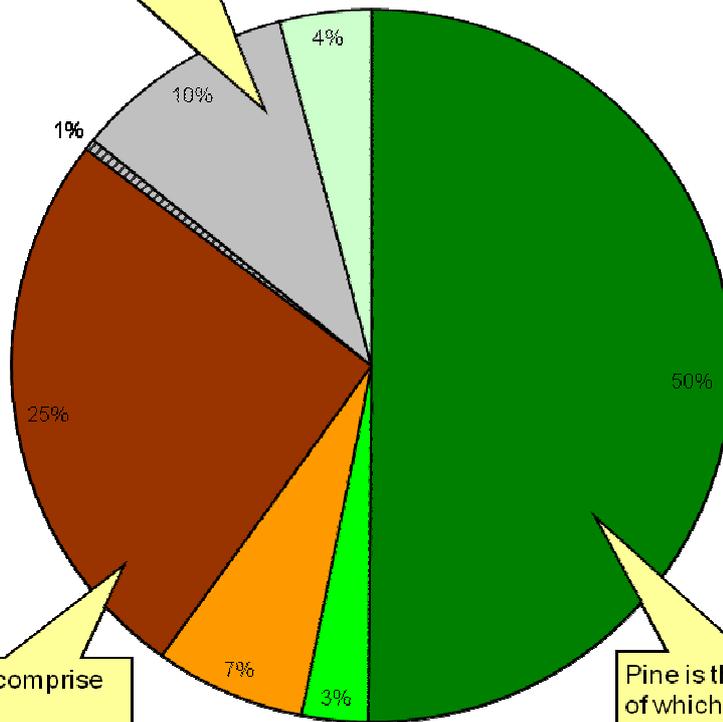
The following graphs illustrate the percentage split of current woodland species and land use, future felling phases and future woodland species and land use. These help to assess the plan against the UK Woodland Assurance Scheme guidance and ensure that the plan is balanced and will deliver the objectives set out earlier.

Current Species Area as a Percentage of the Total Forest

This graph illustrates the current forest species as a percentage of the total



Open space fulfils the UK Woodland Assurance Standard minimum requirement of 10% . Area includes the meres & mosses as well as open space dotted around.



Broadleaves comprise mainly native species, especially birch & also smaller amounts of very mature non-native sweet chestnut & beech

Pine is the main species of which much is Corsican pine. This species is badly affected by RBNB

Future Management Prescriptions as a Percentage of Total Forest

This graph illustrates the future management proposals as a percentage by area of

The harvesting proposals are within the UK Woodland Assurance Standards of not felling more than 25% of the forest area in any 5 year period

