



Forestry Commission
England

East of England

**SWAFFHAM
FOREST DESIGN PLAN**

Total Plan Area: 1330 Hectares

LOCAL PLANNING AUTHORITIES:

Norfolk County Council

Breckland District Council

Date – January 2009

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1. Description

The plan area of 1330 hectares relates to the woodland immediately to the south and west of Swaffham. The two small villages of Cockley Cley and Drymere lie within the design plan area. Around 733 hectares (55%) of the forest is on leasehold land owned by 3 separate local landowners who retain the sporting rights and do not permit access for the general public.

The forest holding is fragmented in to 8 blocks by a number of public roads, the major roads being the A1065 Mundford to Swaffham and the A1122 Swaffham to Downham Market. The remaining roads to the outlying villages carry mostly farm and local traffic.

The whole of the FDP area has been designated as a Special Protection Area (SPA) under the European bird directive and as a result the area is also notified as a SSSI for two birds, woodlark (*Lullula arborea*) and nightjar (*Caprimulgus europaeus*). These birds both use open ground to nest on and as such rely the clearfell system to generate suitable habitat.

The heathland characteristics are reflected in the nature of the soils, which are sands of varying depth, overlying chalk. Soil pH levels range between 5.5 and 7.5 across the area. The climate is generally mild with very warm summers, but spring and early summer frosts are common. These factors, coupled with the relatively low rainfall (520 - 640 mm/year) create growing conditions best suited to species such as pines and birch.

Conifer species dominate the forest area (90%), with less than 8% broadleaves present. These broadleaves are situated primarily in the western block, mostly as strips and roadside belts (c 20 m to 30 m wide). The largest single block of broadleaves is the 7 hectares of oak at Narford Wood, which is a significant feature that pre-dates the conifer woodland that surrounds it.

There is one tumulus designated within the FDP as a site of archaeological importance.

Swaffham forest lies on a landform that is best described as gently undulating, the contours rising and dipping from 20 m to 50 m, typically over a distance of 2 km to 3 km. Much of the forest has been planted on ridges, or tops of plateaux in the landscape which has the effect of creating wooded horizons from many of the main roads. However there are some heavily wooded intimate views from minor roads in and around Cockley Cley and Drymere.

The forest is bordered primarily by intensively farmed agricultural land, but the high density of the typical Breckland Scots pine shelterbelts and other small, private woodland blocks helps Swaffham forest blend in to the local landscape and can actually reduce the impact of any felling coupes to external views.

2. Original FDP – Assessment

The FDP process has changed in a number of ways since the original plan was drafted eight years ago and this is reflected in the new areas that the FDP needs to address. These new areas are listed below with a description of their potential impact.

The UK Forest Standard – This is a Forestry Commission document that sets the standard that both public and private owner should meet to demonstrate good forest practice. One of the main impacts of the standard on this plan is the requirement to have at least a 7 year gap between adjacent felling coupes. The issue of “adjacency” of coupes does occur within this plan.

The UK Woodland Assurance Standard (UKWAS) – The Forestry Commission has received accreditation under this standard so that it can sell its timber as Forest Stewardship Council (FSC) certified. This standard covers a wide range of issues that affect the way the forest is managed. The main effect of UKWAS on this plan is the requirement for the new FDP to meet certain minimum design thresholds. These include the amount of open space that is created during the life of the plan and the area that is designated as a natural reserve and managed by minimum intervention.

East Anglia Forest District Strategic Plan – This plan was recently revised by the forest district to show how it will deal with strategic issues and how it will carry forward some of the objectives of the East of England Regional Woodland Strategy. There are three strategic objectives that will affect this FDP:

“P1.3.iii) To collate and prioritise the ideas/objectives of all teams to fully inform the FDP.”

“P1.3.iv) Take into account the internal and external landscape considerations for the area.”

“En 2.2) To manage and monitor SACs, SPAs and SSSIs.”

The first two objectives are part of the normal forest design planning process and the third objective is tested when the revised FDP undergoes an appropriate assessment for its impact on the Breckland Forest SSSI/SPA.

3. Design Brief

The issues that the forest design plan should address are set out below under three broad headings, which relate to the structure of DEFRA's "A Strategy for England's Trees, Woods and Forests".

Working Woodland

- The felling plan should aim to smooth production from crops in cyclic clearfell but also meet market commitments for 2007-11.
- Design felling coupes that are economical to restock.
- Restocking should aim to maximise production but also to increase species and habitat diversity.
- Restock species should take soil pH into account and the threat posed by Red Band Needle Blight.

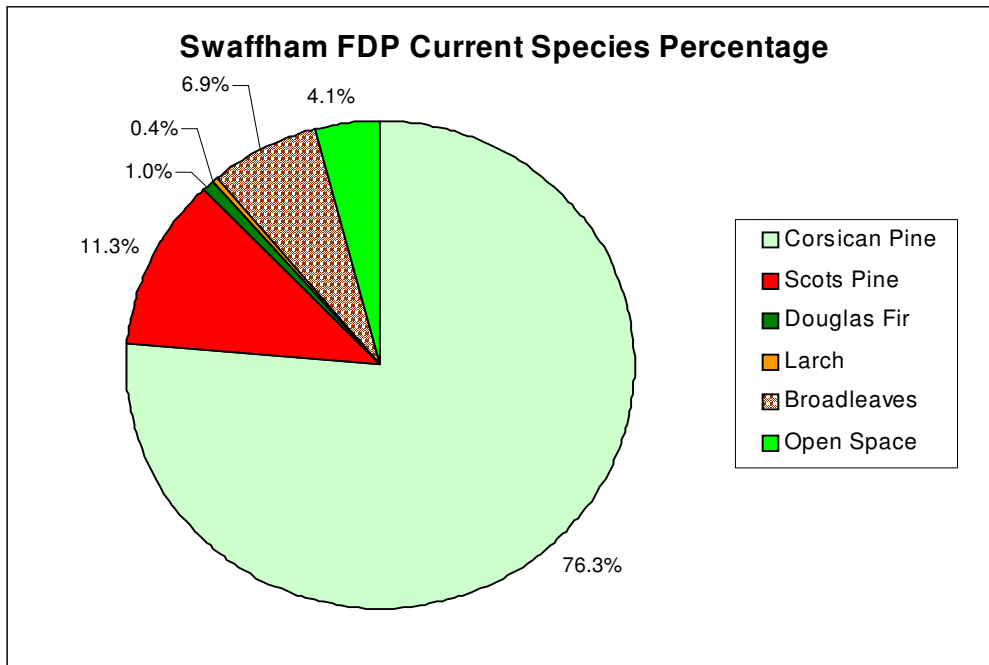
Communities and Places

- Maintain a pleasant woodland environment for use by local dog walkers and horse riders.
- Reduce the size and shape of felling coupes to fit into the landscape

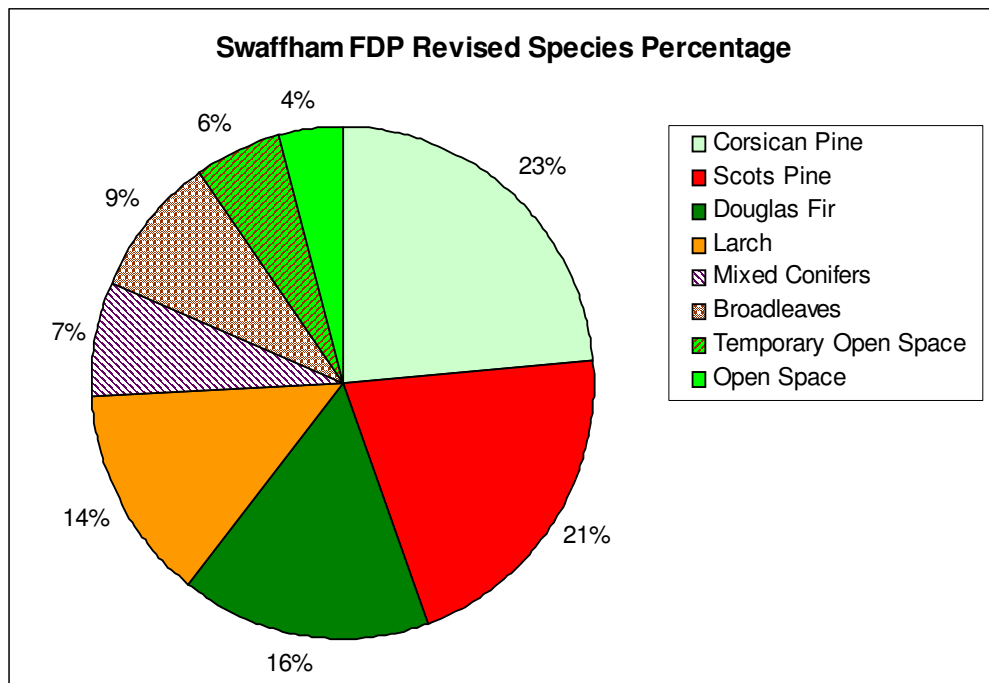
Land and Natural Environment

- Felling plans should aim for a more even distribution of felled area for Woodlark/Nightjar habitat under the SPA.
- Link open spaces and widen conservation rides.
- Increase amount of open space to minimum of 10% of the plan area (UKWAS target).

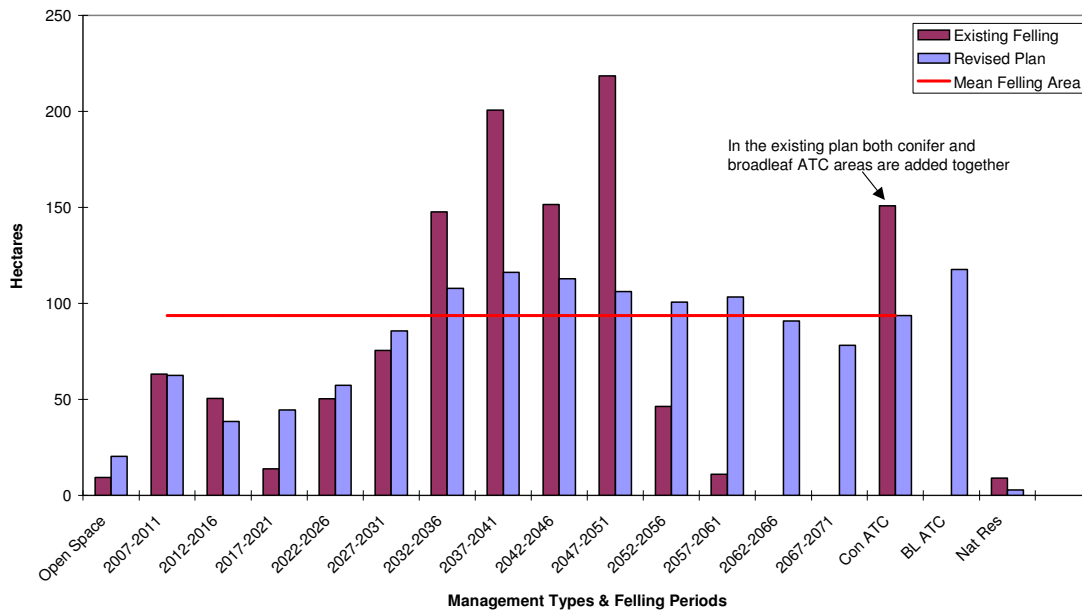
4. Species and Felling Area



Proposed



Comparison of Existing and Revised Felling



* The indicative mean is an estimated value based on the area of cyclic clearfell within the FDP divided by 59. The 59 represents an average rotation length of 57 years plus 2 years of fallow while the ground is prepared for the next crop.

5. Plan Appraisal

The appraisal of the revised plan is measured against the design brief on page 4, this has three separate sections and the appraisal relates to these sections:

Economic Issues

The relationship between timber volume production and felling area is close enough for the bar chart above to illustrate the smoothing effect that the revised plan has had on volume. The production of timber volume has been levelled significantly but it will take another rotation before the actual felling area is closer to the indicative mean value.

A comparison of the pie charts on page 5 indicates that species diversity will increase over the life of the plan. The plan shows a decrease in the amount of Corsican Pine that will be planted. This is partly as a response to the threat posed by Red Band Needle Blight but also as a result of the need to widen the range tree species across the FDP area. The future management of the mixed conifers and broadleaved areas will be by various continuous cover systems.

Social Issues

The revision of the plan has retained continuous cover areas around the forest thereby maintaining the visual diversity of the area e.g. retaining the Douglas fir on the high ridge in the south east of the plan. In other parts of the plan groups of mature trees have been kept past their normal fell age to maintain structural diversity in the landscape. The coupe size range has also been modified so there are no excessively large coupes.

Environmental Issues

As mentioned earlier, the felling area chart on page 6 shows how the revised plan has “smoothed” the creation of felling area so that Woodlark and Nightjar habitat is more evenly distributed. The effect of the revised plans on the cyclic felling area across the whole SPA has been calculated on GIS (Geographic Information System). The SPA regulations require that no more than 10% of the clearfell area is in coupes less than 5 hectares in size, as felled coupes smaller than this are judged to be less attractive as breeding habitat for Woodlark and Nightjar. An analysis of the SPA area including this revised plan shows that only 4% of the clearfell area is in coupes of less than 5 hectares in size.

The pie chart on page 5 shows that the area of permanent open space remains static at 4% when compared to the original plans. This is due to mapping errors in the original plan as new areas of open space have been created, largely, by widening rides and creating new links to existing open space. The resulting effect is a network of wide rides but few large open areas. The creation of this network can be hastened by widening the rides at the time of next thinning. The larger open spaces in the plan will be created as areas of temporary open space where clearfells will not be restocked and the process of succession will take place. It should also be noted that the cycle of clearfelling produces an abundance of ephemeral open space, which is the preferred nesting habitat for Nightjar and Woodlark.

6. Monitoring

Once the felling of a coupe has been completed, the shape of that coupe is captured on the ground using a GPS (Global Positioning System) receiver and the data is uploaded into GIS. The resulting point data is then compared to the original coupe shape to confirm that the felling coupe has been accurately laid out on the ground. A felled coupe is usually restocked two years later, when all the ground preparation and weed control has been completed. At this point the forest district database is updated to show the newly planted species and their proportions. As part of this updating process the restocking information is compared with the FDP restock plan to confirm compliance. The restocking can vary slightly from the FDP as physical features, such as banks and pits, come to light after felling, which were not picked up during the planning process. Most of these minor changes are within the tolerances agreed between Forest Enterprise and the Forestry Commission – see Appendix I.

7. Plan Review

This FDP will be reviewed internally after 5 years and formally revised before 31 March 2019.

8. Approval

I seek approval to clearfell and restock 145 ha of the Public Forest Estate and also to selectively fell approximately 42 ha within an area of 211 hectares (for the purpose of continuous cover forestry) during the period 1/4/2009 to 31/3/2019 as shown on the enclosed plans.

Maps included with this document are as follows –

Analysis & Concept

Management

Species/Habitat

Signed: Date.....

Approved.....Date.....

Forest Management Director

Regional Director

Appendix I

Tolerance Table

	Adjustment to felling coupe boundaries	Timing of Restocking	Changes to species	Windthrow clearance
FC Approval normally not required	0.5 ha or 5% of coupe	Up to 3 planting seasons after felling	Change within species group e.g. evergreen conifers; broadleaves	Up to 2ha
Approval by exchange of letters and map	0.5ha to 2ha or 10% of coupe	Up to 4 planting seasons after felling	Change from other conifers to Corsican Pine	> 2ha to 5ha
Approval by formal plan amendment	> 2ha or >10% of coupe	Over 4 planting seasons after felling	Change from broadleaves to conifers	> 5ha

Appendix II Scan of signature from hard copy

CSM 6 Appendix 1a FOREST ENTERPRISE - Application for Forest Design Plan Approvals in England

Forest Enterprise - Property

6211/2/10

Forest District:	East Anglia
Woodland or property name:	Swaffham Forest
Nearest town, village or locality:	Swaffham
OS Grid reference:	TF769092
Local Authority district/unitary Authority:	Breckland DC

Areas for approval

	Conifer	Broadleaf
Felling	187 ha	
New planting (complete appendix 4)		


1. I apply for Forest Design Plan approval*/~~amendment approval*~~ for the property described above and in the enclosed Forest Design Plan.

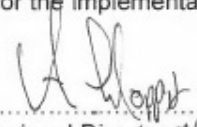
2. ~~I apply for an opinion under the terms of the Environmental Impact Assessment (Forestry) (England & Wales) Regulations 1999 for afforestation*/deforestation*/roads*/quarries* as detailed in my application.~~

3. I confirm that the pre consultation, carried out and documented in the Consultation Record attached, incorporated those stakeholders which the FC agreed must be included. Where it has not been possible to resolve specific issues associated with the plan to the satisfaction of consultees, this is highlighted in the Consultation Record.

4. I confirm that the proposals contained in this plan comply with the UK Forestry Standard.

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

Signed 
Forest Management Director

Signed 
Regional Director

District EAFD

Region East of England

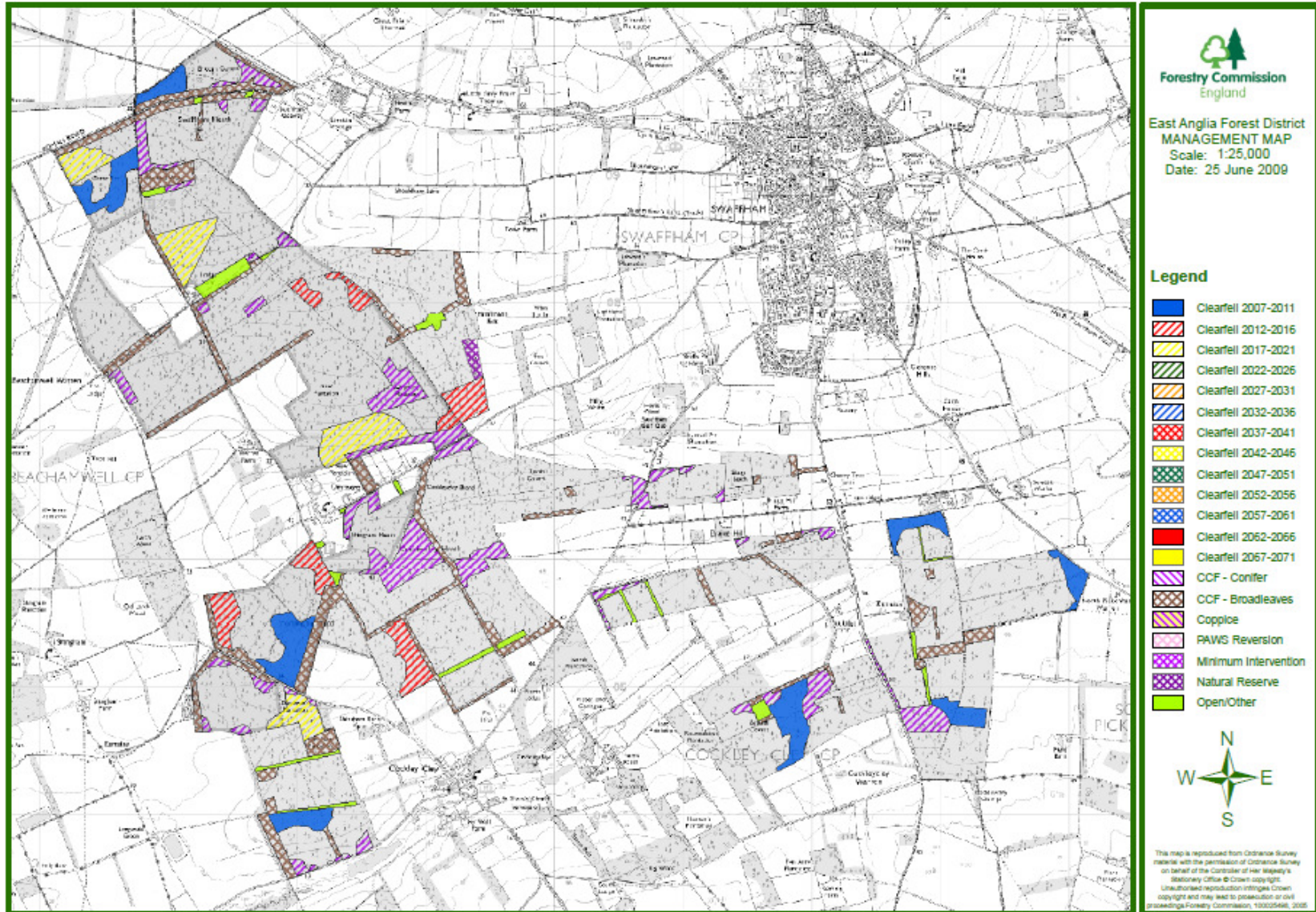
Date 19/6/09

Date of Approval 3rd September 2009

Date approval ends 2nd September 2019

*delete as appropriate

Appendix III Felling Map



Appendix IV Restock Map

