

Hambleton

Management Plan

Date (dd/mm/yyyy)	2009	To	2018
Date of last review ¹ (2.1.3)	2005		
Owner / tenant	Mr. Smith		
Agent / contact	Tihill		
Signed declaration of tenure rights and agreement to public availability of the plan ² (UKWAS 1.1.3/1.1.5/2.1.2)	Mr. Smith		

1. Background information

1.1 Location

Nearest town, village or feature	Thirsk
Grid reference	AB123 456
Total area (ha)	171.39

1.2 Description of the woodland(s) in the landscape

The woodland is of significant importance with respect to landscape for a number of reasons;

- the vast majority of the property is visible from the A170 which is the main road between the A1(M) and Scarborough;
- located on the edge of the National Park, it has become the main landscape feature surrounding the visitor centre which has had in excess of 100,000 visitors in the last 12 months;
- the network of footpaths within the woodland is extensively used.

With all these sensitivities the felling license for the next five years and the long-term felling/restocking plans have been compiled in consultation with the Forestry Commission. Each of the felling coupes have been planned to ensure that the adjacent compartments will be either five years old and/or two metres high before being felled. The felling plan, while working within the constraints of wind hazard classification (WHC) and economic rotation, attempts to distribute the felling coupes as widely and 'sensitively' as possible.

¹ The plan must be reviewed every five years.

² As owner, tenant or manager, you have the right to manage the wood in accordance with this plan. At least a summary of the management plan must be made publicly available on request.

1.3 History of management

Tilhill has managed Hambleton Woodland since 1994. This management plan is the continuation from the previous two and is written in light of the owner's desire to retain UKWAS certification. The first plan began the process of restructuring the woodland and, although the forest suffered significant wind damage eight years ago, it was successful in moving the woodland towards 'normality'. The second plan was designed to continue this process of restructuring whilst acknowledging the restriction of wind damage and implementing the requirements of UKWAS.

2. Woodland information

2.1 Areas and features

2.1.1 Designated areas	In woodland	Adjacent to woodland	Map
Special Areas for Conservation (SACs)			
Special Protection Areas (SPAs)			
Ramsar Sites (see note on Guidance)			
National Nature Reserves (NNRs)			
Sites of Special Scientific Interest (SSSIs)			
Other designations e.g.: National Parks (NPs), Areas of Outstanding Natural Beauty (AONBs), Local Nature Reserves (LNRs)	✓		1
Details On eastern border of North Yorkshire Moors National Park			
2.1.2 Rare and important species	In woodland	Adjacent to woodland	Map
Red Data Book or BAP species			
Rare, threatened, EPS or SAP species			
Details N/A			
2.1.3 Habitats	In woodland	Adjacent to woodland	Map
Ancient semi-natural woodland (ASNW)			
Other semi-natural woodland	✓		16, 17
Plantations on ancient woodland sites (PAWS)			
Semi-natural features in PAWS			
Woodland margins and hedges			
Veteran and other notable trees			
Breeding sites			
Habitats of notable species or subject to HAPs			
Unimproved grassland			
Rides and open ground	✓	✓	16, 17
Valuable wildlife communities			

Feeding areas			
Lowland heath	✓		16, 17
Peatlands			
Others			
Details			
National Park vegetation survey found Flassen Gill between cpts. 5 and 6 to have ancient woodland characteristics Cpt. 13 contains remnants of lowland heath.			

2.1.4 Water	In woodland	Adjacent to woodland	Map
Watercourses	✓		12, 13
Lakes			
Ponds			
Wetland habitats			
Details			
N/A			
2.1.5 Landscape	In woodland	Adjacent to woodland	Map
Landscape designated areas			
Landscape features			
Rock exposures			
Historic landscapes			
Areas of the woodland prominent from roads	✓		1, 12, 13
Areas of the woodland prominent from settlements			
Details			
The whole of the woodland is clearly visible from the road.			
2.1.6 Cultural features	In woodland	Adjacent to woodland	Map
Public rights of way	✓		12, 13
Prominent viewing points		✓	1
Permissive footpaths	✓		12, 13
Areas managed with traditional management systems			
Details			
N/A			
2.1.7 Archaeological features	In woodland	Adjacent to woodland	Map
Scheduled monument	✓	✓	12, 13
Historical features			
Details			
Scheduled monuments in cpts. 1, 3 and 6. The monument in cpt. 6 is a series of dykes that have been surveyed in detail and a report produced for Tilhill.			

2.2 Woodland resource characteristics

Figure 1: Species Distribution 2009 (refer to maps 4 and 5)

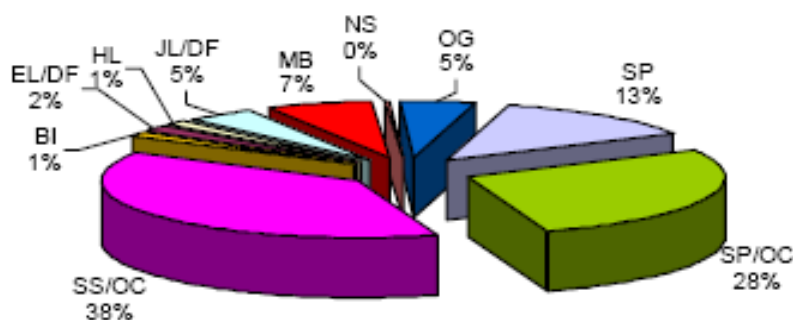
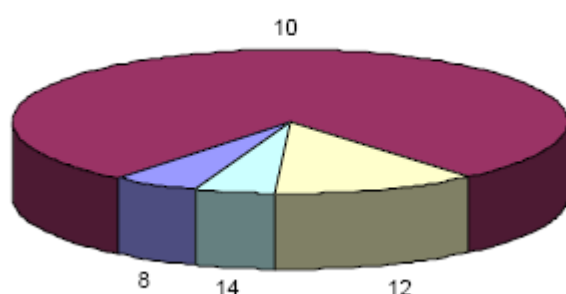


Figure 1 together with maps 4 and 5 in the appendices illustrates the current diversity of species within Hambleton. One of the objectives of the harvesting and restocking plans will be to increase both the proportion of open ground and widen the variety of species whenever possible. The restocking plan will also ensure that the most appropriate species are selected for each compartment in terms of meeting the owner's objectives and UKWAS requirements.

Figure 2: Yield Class 2009 (refer to maps 6 and 7)



The current yield class distribution (*figure 2*) reflects the significant proportion of pine within the property at present. Although Hambleton generally grows reasonable quality pine it is never very productive and although it is recognised as being important in terms of landscape and ecological diversity there will be a gradual reduction in the proportion of pine and an increase in Sitka spruce and Japanese and hybrid larch.

2.3 Site description

Access

External

Access to both woodland blocks is good. The main trunk road, the A170 runs along the southern boundary of the majority of the western block and runs close by the eastern block. Access to the eastern block is by means of an unclassified county road and a green lane that joins the A170.

Internal

Hambleton West - access within the property is along a network of rides which, for harvesting purposes, can only be used in the summer months. There is a shared right of access along the road running from the Hambleton Inn and Stables, which dissects the western block. Hambleton East - the eastern block has a more developed network of rides and a summer road that is suitable for harvesting operations in good weather. The main road running through the block between the A170 and the minor road to Scawton is a public right of way. Due to its distance from the A170 the road will need to be upgraded in the medium-term future.

Boundaries

Hambleton West - neighbouring land to the western block is primarily county roads and the Hambleton Inn to the south/west and agricultural land with a horse gallop to the north. The south-western boundary of compartment 3 borders other woodland currently owned by Forest Enterprise. Hambleton East - the eastern block is almost entirely surrounded by agricultural land. All external fences are in good condition.

Site Characteristics

Elevation

The elevation of the woodlands range from 220 metres above sea level at the eastern end of the eastern block, up to 300 metres at the summit of Sutton Bank.

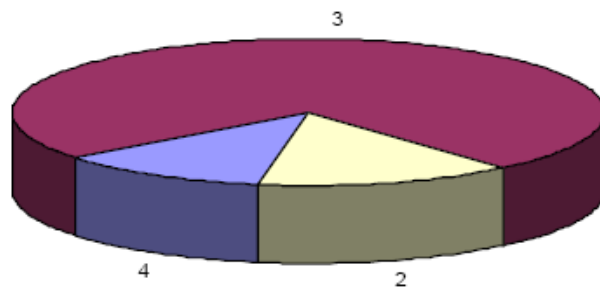
Soil map

Soil maps 8 and 9 are enclosed in the appendices.

Windthrow Hazard Classes

Maps 10 and 11 and *figure 3* illustrate the WHC.

Figure 3: Windthrow Hazard Class 2009 (refer to maps 10 and 11)



Legal Burdens

Both Hambleton East and West have a healthy badger population and the location of all known setts is shown on the appended constraints map.

Sporting Rights

A syndicate holds a three-year sporting lease for the whole of the property to shoot game birds, hares, rabbits and deer as well as controls all pest species such as crows and grey squirrel. The shoot has been well developed over the last few years with an ever-improving annual bag.

Public Access

There is a network of permissive and public rights of way throughout both Hambleton East and West. The network is signed and maintained on a regular basis, all of, which is part funded by an annual management, grant (AMG) from the Forestry Commission. The

location of these paths is shown on the appended constraints maps 12 and 13. It was estimated by the North York Moors National Parks Authority (NYMNPA) that in the region, of 10,000 people have visited the woodland in the last 12 months. The vast majority of the visitors start their walk/cycle from the NYMNPA visitor centre at the top of Sutton Bank. A leaflet detailing the walk routes and points of interest within the woodland is available at the visitor centre. Information boards along the network of paths give further details on particular aspects of the woodland. The woodland is also used for orienteering competitions each year. To date there have been no conflicts between the forest management objectives and the pressures of public access.

Archaeology

There are a number of sites of archaeological interest throughout Hambleton West, which have all been extensively surveyed and reported on by the archaeological officers from the NYMNPA. The sites of interest are now protected as Scheduled Ancient Monuments by English Heritage and their locations are shown on the enclosed constraints maps 12 and 13. All forestry operations take these features into consideration and, if it is felt necessary, further consultation with English Heritage is sought.

2.4 Significant hazards, constraints and threats

The hazards and constraints are illustrated on maps 12 and 13.

3. Long term vision, management objectives and strategy

3.1 Long term vision

In the long term, the management vision is to maximise the value of the standing crops through the production of quality sawlog material and to continue the restructuring process to further diversify age class distribution. The desire is to maintain and enhance the biodiversity value of the woodland by adoption of practices and systems that minimise damage caused by forest operations and exploit opportunities to enhance the forest environment. The owner is committed to management in compliance with the UKWAS standard.

3.2 Management objectives

No.	Objective
1	To manage the woodlands to increase their capital value and maximise financial return on investment from forestry and sporting
2	Encourage public access to certain areas of the woodland.
3	Maintain and protect important features such as Scheduled Ancient Monuments.
4	Maintain the woodland as a landscape feature in the surrounding area.

3.3 Strategy

Forest restructuring will be achieved by following a planned felling progression and subsequent restocking programme. Restructuring will allow the development of a more diverse age structure and so improve the ability of the forest to deliver both quality

timber and environmental benefits on a sustained basis while spreading risk. Conservation interests within the forest will be maintained and further developed through the sympathetic management of those key habitats identified and increasing the proportion of appropriate broadleaved plantings in conjunction with restocking programmes. The opportunities provided by restructuring to improve the protection and management of landscape, public access and sensitive sites will be acted on.

3.4 Woodfuel initiative

Would you be interested in receiving information on funding opportunities for the purchase of harvesting machinery or wood fuel boilers?

Yes / No (delete as appropriate).

4. Management prescriptions/operations

4.1 Silvicultural systems

4.1.1 Harvesting

Over the next five years 5.6 ha (3.2% of the total area) is programmed to be clearfelled and restocked.

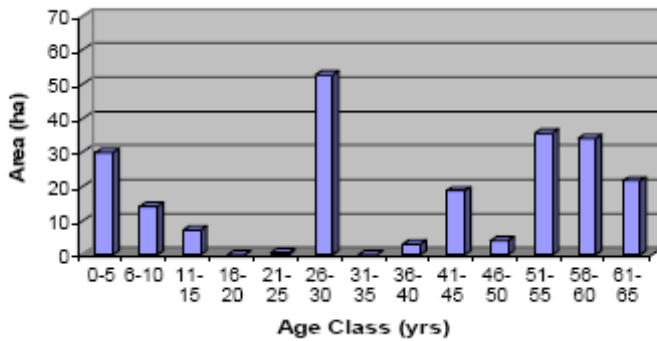
The coupe selection for this and the remainder of the forest, highlighted on felling maps 16 and 17, was based upon a number of criteria;

- wind firm edges will be identified and retained whenever possible;
- the neighbouring compartments to the selected coupe should have a crop of at least 2m in height or have been growing for 5-7 years of age;
- the coupes selected and the timing of the felling is sympathetic to landscape and access issues;
- the coupe selection takes the stand's economic felling age, terminal height and the restructuring into consideration.

It is proposed that undertaking a phased felling and restocking programme restructure the bulk of the forest. A total of 56 ha. has been identified on maps 14 and 15 for thinning over the next five years. All the thinning will be selective on a silvicultural basis, with no line thinning except where racks are required for initial access. The assessment for whether a stand requires thinning is initially made visually and then a basal area assessment made and recorded. Sample marking is undertaken to ensure that the intensity is correct for the stand and then a post harvesting basal area assessment is carried out and recorded to ensure that the threshold basal area has been maintained. The thinning cycle is assessed through a pre-thinning yield class assessment at the time of basal area measurements

4.1.2 Phased felling and restructuring of plantations

Figure 4: Age Class Distribution 2009



The current ACD is typical of many conifer plantations of this age. The age classes 0-5 and 6-10 represent the beginnings of the restructuring process. The felling plan (maps 16 and 17) will work towards restructuring the forest over the next 22 years primarily by identifying viable long term retentions and timing felling coupes that will allow for the landscape sensitivities and restrictions caused by wind throw hazard classification. Whenever possible a coupe is felled, as close to it's terminal height as practicable. Figure 5 below shows the age class distribution in 2020 if the felling plan is followed. Note that age classes 66 to 80 years represent the areas identified as LTRs and NRs in the felling plans.

Figure 5: Age Class Distribution 2020

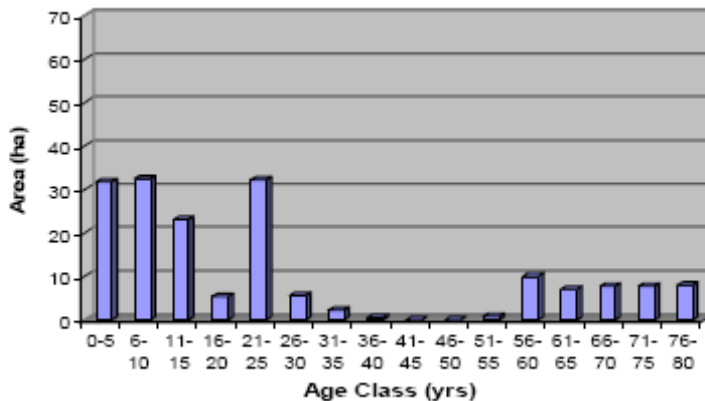
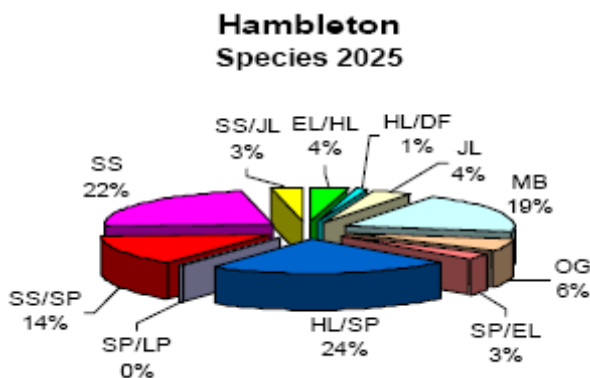


Figure 6: Species Distribution 2025



4.1.3 Establishment, restocking and regeneration

As illustrated in *figure 1*, Hambleton already has a significant diversity of species. The aim of the restocking plan was to maintain, and wherever possible increase, that diversity while trying to match the best-suited species for each site. Referring to figure 6 above, restocking provides an opportunity to enhance both the species and age diversity within the forest. Each area will be restocked with a core mix of coniferous species, together with a significant introduction of native broadleaves and shrubs. Based on growth potential and quality in the first rotation the conifer species will concentrate more on Sitka spruce and Hybrid larch with a reduction in the proportion of Scots pine. The apparent decrease in the proportion of open ground is not what will occur 'on the ground'. Much of the 19% of mixed broadleaved planting will incorporate a significant proportion of open ground. The restocking maps 18 and 19 give further details.

4.2 New planting

None

4.3 Other operations

Roading

The current road system within the property is limited and in the medium term future the road network will have to be developed/upgraded to facilitate the removal of greater volumes of timber. The existing network in Hambleton East is adequate but will need upgrading.

4.4 Protection and maintenance

4.4.1 Pest and disease management

Herbicide and pesticide regimes will be incorporated as and when necessary and all these operations will be undertaken in accordance with the Tilhill Environmental Management System Chemical Reduction Strategy. It is considered at present that the main herbicide used will be Glyphosate. In accordance with Forestry Practice the use of Permasect will be phased out this year and after that all conifer crops will be sprayed with an alternative approved pesticide. The application of a solution of parasitic nematodes is currently being tested by Forest Research and if it becomes a financially viable alternative to synthetic pesticides in the future its use will be considered. All harvesting operations use urea as a stump treatment to prevent the spread of *Heterobasidion annosum*.

The shooting tenant actively manages the woodland's deer population. At present none of the restock site have had any significant problems with deer damage but a neighbouring estate, Cold Kirby, does have a severe deer problem which highlights the necessity to maintain control. The effectiveness of the level of control is assessed annually by a combination of onsite meetings with the shoot, assessment of potential deer 'hot spots' within woodland and cull records. There was been a slight increase in the amount browsing damage sustained by broadleaves in Hambleton East over the last 18 months and the strategy was amended accordingly.

4.4.2 Fire plan

The forest is entered into Tilhill Yorkshire District's Fire Plan. The local fire brigade has the details of the property and contacts details for certain members of staff in the event of a fire. Copies of the plan are kept in the district office.

4.4.3 Waste disposal and pollution

The disposal of waste is done so as to minimise any negative environmental impacts. Examples of this include;

- chemical containers being returned to suppliers when possible or disposed of as per the label recommendations and guidelines;
- plant bags being re-used for other purposes;
- tree shelters being re-used whenever possible.

Where there is a risk of pollution from any operations (e.g. chemical use, fuel/oils etc), the hazard is identified in the operational risk assessment and controls such as the carrying of spillage kits and adhering to Forest Water Guidelines are put in place.

4.4.4 Protection from unauthorised activities

Apart from occasional minor incidents of fly-tipping there are no unauthorised activities within the woodland. Where there are incidents of fly tipping, the waste is removed to a landfill site by a registered waste carrier.

4.4.5 Protection of other identified services and values (4.1.1)

N/A

4.5 Game management

The shooting is let out on a short-term lease and the game keeping is the responsibility of the leaseholder. The shooting is undertaken within the law ensuring that all relevant codes of practice are adhered to and that all gun licences and insurance's are up to date. The number of pens used and quantity and the locations of birds put down, together with annual bag counts are recorded to ensure that the shoot is managed sustainably. The lease states what species the tenant is permitted to shoot and these are also recorded with the annual bag as well as a count on the number of pests and vermin shot where the tenant has that obligation. The counts are assessed to ensure that the control of vermin species is not to the point of eradication.

4.6 Protecting and enhancing landscape, biodiversity and special features

4.6.1 Management of designated areas

Thinning, felling and restocking operations planned to maintain the wood as a landscape feature surrounding the Visitor Centre. See maps 12-19.

4.6.2 Measures to enhance biodiversity and other special features (2.1.1k and 6.1.1)

Provision of Deadwood Habitats

It is recognised that deadwood provides an important habitat and that its provision is important for maintaining biodiversity within the forest. Management will allow for the retention of deadwood where it does not pose a hazard, contributing to the accumulation of standing and fallen deadwood in roughly equal proportions, up to a minimum 20 m³/ha or 5 - 10% of the average stand volume. Specifically the deadwood will be retained within the areas designated as natural reserves and long term retentions (refer to maps 16 and 17). Within the main body of the forest small scale windthrow will not be cleared up but allowed to develop as deadwood habitat. Deadwood will be retained on harvesting sites where appropriate opportunities to develop valuable habitat arise, this will usually be in wet hollows.

Open Ground

Permanent open ground within a forest is recognised as being of particular environmental value and it is proposed to maintain areas of open space and enhance their value wherever possible. Open ground will be incorporated into all restocking sites. Areas of open ground will be positioned in order to enhance landscape, both internally and externally, of the forestry blocks and will also be used to improve habitats within the woodland. The best example of open ground within Hambleton is the lowland heath of cpt. 13.

4.6.3 Special measures for ASNW and SNW

Flassen Gill (cpt. 5c and 6f) is considered to have native woodland characteristics (although not designated as such) and the management of it and adjacent cpts. will reflect this to enhance its condition.

4.6.4 Special measures for PAWS

N/A

4.6.5 Measures to mitigate impacts on landscape and neighbouring land (3.1.2)

Undertaking a phased felling and restocking programme will restructure the bulk of the forest. The felling plan (maps 16 and 17) will work towards restructuring the forest over the next 22 years primarily by identifying viable long term retentions and timing felling coupes that will allow for the landscape sensitivities and restrictions caused by wind throw hazard classification

The coupe selection for the forest, highlighted on felling maps 16 and 17, was based upon a number of criteria;

- wind firm edges will be identified and retained whenever possible;

- the neighbouring compartments to the selected coupe should have a crop of at least 2m in height or have been growing for 5-7 years of age;
- the coupes selected and the timing of the felling is sympathetic to landscape and access issues;
- the coupe selection takes the stand's economic felling age, terminal height and the restructuring into consideration.

Every 10 years, fixed-point photography from prominent viewpoints will be taken and used to support proposed felling and thinning decisions.

4.7 Management of social and cultural values

4.7.1 Archaeology and sites of cultural interest

All archaeological features are marked upon the constraints map 12 in the appendices. Caution will be taken in order to safeguard these features. The condition of the archaeological features will be monitored visually on a frequent basis. The National Park's archaeologist will be consulted with before any works are carried that may have an impact on any archaeology.

4.7.2 Public access and impacts on local people

There is a network of permissive footpaths and public rights of way throughout Hambleton West. The network is signed and maintained on a regular basis, all of which is part funded by an AMG from the Forestry Commission. The location of these paths is shown on the appended Constraints Map 12. It was estimated by the NYMNPA that in the region of 10,000 people have visited the woodland in the last 12 months. The vast majority of the visitors start their walk/cycle from the NYMNPA visitor centre at the top of Sutton Bank. A leaflet detailing the walk routes and points of interest within the woodland is available at the visitor centre. Information boards along the network of paths give further details on particular aspects of the woodland. The woodland is also used for several orienteering competitions each year. To date there have been no conflicts between the forest management objectives and the pressures of public access.

There are currently no proposals to increase public access in the woodland blocks, however, footpath surfaces will be maintained as and where necessary - especially if damaged through forestry activities. Close liaison with the FC and NYMNPA will continue.

5. Consultation

Organisation/individual	Date received	Comment	Response/action
North York Moors National Park Authority, Woodland Officer; Ecologist and Archaeologist		Flassen Gill (cpt. 5c and 6f) felt to have native woodland characteristics (although not designated as such) and the management of it and adjacent cpts. should reflect this. Ecologist confirmed value of cpt. 13 (remnant heath land) and gave recommendations on the management of such.	Follow recommendations for management.
Visitor centre			Maintain communications link. Brief before operations near key walks.
Forest Enterprise, Pickering			Informed of plan and invited to comment. No comments.
Helmsley Parish Council			Informed of plan and invited to comment. No comments

6. Monitoring plan summary

Objective number, issue or UKWAS Requirement	Indicator	Method of assessment	Monitoring period	Responsibility	How will information be used?
Maximise financial return and capital value	Accounts and valuation report	Forward planning with budgets and frequent reconciliation	Annually and at plan renewal	Manager	Feedback into discussion during development of annual work programme
Public access	Number of visitors, feedback	Get count from visitor centre Feedback from visitor centre 'comments box'	Annually	Manager/visitor centre	Monitor if operations and structure changes influence visitor experience/numbers. Feedback into planning
Protect archaeology	Site condition	Fixed point photos	Every 5 years and after operations in cpt. or adjacent cpt.	Manager	Feedback into discussion with NYMNPAArchaeologist on site management
Landscape	Prominence in the landscape	Fixed point photography from prominent viewpoints	Every 10 years	Manager	Feedback into felling and thinning planning.

7. Work programmes

7.1 Outline long-term work programme (2009 to 2028)

Compartment or area	Activity	Year		
		6-10	11-15	16-20
Hambleton East	Upgrade forest road from A170 turn off.	✓		

7.2 Short-term work programme (2009 to 2013)

Compartment or area	Activity	Year				
		1	2	3	4	5
8e	Restock with SP/JL & MB	*				
8e	Spray with permethrin (2 applications as required)	*				
8e	Beat up as required	*				
8e	Reform permissive footpath	*				
Hambleton West	Strim/spray permissive footpaths as required	*				
8g	Erect barrier for stacking area	*				
8e	Chemical weed and prune Christmas trees	*				
8e	Spray with insecticide (2 applications as required)		*			
8e	Beat up as required		*			
Hambleton West	Strim/spray permissive footpaths as required		*			
Hambleton East	Brush access racks for shoot as required		*			
8e	Chemical weed and prune Christmas trees		*			
Various (see maps 14 & 15)	Thin		*			
8e	Beat up as required			*		
Hambleton West	Strim/spray permissive footpaths as required			*		
8e	Chemical weed and prune Christmas trees			*		
8g	Clear fell			*		
8g	Mound			*		
8g	Restock with HL/SP & MB				*	
8g	Spray with insecticide (2 applications as required)				*	
Various (see maps 14 & 15)	Thin				*	
8e	Chemical weed and prune Christmas trees				*	
Hambleton West	Strim/spray permissive footpaths as required				*	
Hambleton East	Brush access racks for shoot as required					*
Hambleton West	Strim/spray permissive footpaths as required					*
8g	Spray with insecticide (2 applications as required)					*
8g	Beat up as required					*

8. Costings (2.2.1)

The woodlands are forecast to produce a modest annual net return for the owner. Annual costs averaged over the life of the plan include income from standing sales (£8,000 per year), EWGS grants (WMG, WRG) (£3,400 per year) and sporting revenue. Annual expenditure averages £7,000 per year.

9. Maps

List all maps here and append to plan.

Map No/Title	Description
1	Location Map – 1:50,000
2	Hambleton West - Compartment Map
3	Hambleton East - Compartment Map
4	Hambleton West – Species
5	Hambleton East – Species
6	Hambleton West – Yield Class
7	Hambleton East – Yield Class
8	Hambleton West – Soil
9	Hambleton East – Soil
10	Hambleton West – Windthrow Hazard Class
11	Hambleton East – Windthrow Hazard Class
12	Hambleton West – Constraints
13	Hambleton East – Constraints
14	Hambleton West – Thinning Plan
15	Hambleton East – Thinning Plan
16	Hambleton West – Felling Plan
17	Hambleton East – Felling Plan
18	Hambleton West – Restock Plan
19	Hambleton East – Restock Plan

10. Thinning, felling and restocking proposals

Applicants seeking funding through the wood fuel initiative for harvesting machinery or wood fuel boilers must indicate the total volume that is to be thinned and felled during the period of this plan, **by completing Table A.**

This section **should not be completed** for any other applications.

All applicants **must** complete **Table B.** where harvesting work is to be undertaken.

Table A.

Species	Total estimated volume to be harvested during plan period (m ³)
Broadleaves	0
Conifers	2740

Table B.

This section must be completed if you wish to gain felling licence approval from the Forestry Commission. The work detailed below should match the proposals set out in the plan.

For details on how to complete the table, please refer to [EWGS 4 Woodland Regeneration Grant Guide \(PDF 84kb\)](#).

Cpt./sub cpt.	Area	Area to be worked	Type of felling	% of felled area comprising		Type of licence	Change in woodland type	Preferred claim year	Restock species %	Establishment by natural regeneration %	Standard proposals	Notes
				BL	CON							
See Map 14, 15	56.0	100	T		100	U	None	N/A	N/A	N/A	N/A	30% of trees to be removed, favouring best stems
See Map 14, 15	2.6	100	CF		100	C	CON-P to CON	2010	SS: 35% HL: 30% NBL: 15% OG: 20%	5%	3(i) and 1(i)	
See Map 16, 17	3.0	100	CF		100	C	CON-P to CON	2013	SS: 35% HL: 30% NBL: 15% OG: 20%	10%	3(i) and 1(i)	

Appendices

Compartment Schedule

Hambleton Woodlands Compartment Schedule 2003

CPT	Gross Area	SPP	AV. DBH	MTV	SPH	m ³ /HA	% STOCKED	net total m ³	WHC	P YEAR	AGE	YC	AVERAGE TOP HEIGHT
1a	5.70	SP/SS/BI	28	0.45	670	301.5	0.85	1461	3	1941	62	10/10	21.5
	5.70												
2a	12.10	SS			2500					1998	5		
2b	5.53	SS/SP	26	0.545	583	317.735	0.85	1494	3	1940	63	12/14	21.9
2c	0.67	BI				0		0	3	1990	13		
	18.30												
3a	8.34	SP/SS	28	0.499	630	314.37	0.85	2229	3	1948	55	10/10	22.1
3b	2.27	BI				0		0	3	1989	14		
3c	2.29	BARE	0			0		0	3				
	12.90												
4a	4.81	SP/SS	30	0.58	725	406	0.85	1660	3	1997	6	10	20.1
4b	3.70	SP	28	0.58	600	348	0.85	1094	3	1942	61	10	21.95
4c	1.09	MB/BARE	0			0		0	3				
	9.60												
5a	11.98	SP/SS	27	0.51	678	345.78	0.85	3521	3/4	1946	57	10	20.22
5b	0.63	MB	0			0		0	3	1950	53		
5c	2.89	SP/SS	25	0.43	700	301	0.85	739	3	1946	57	10	19.92
	15.50												
6a	1.06	SP/SS	24	0.45	710	319.5	0.85	288	3	1946	57	10	20.4
6b	9.37	SP	26	0.47	690	324.3	0.85	2583	2	1943	60	10	20.63
6c	1.04	MB	0			0		0	3	1953	50		
6d	0.62	MB	0			0		0	2	1960	23		
6e	4.95	SP/HL	26	0.48	883	423.84	0.85	1794	3	2003	0	10	20.48
6f	0.46	MB				0		0	3	2003	0		
6g	8.11	JL				0		0	3	1995	8		
6h	5.06	JL/SP	27	0.54	800	432	0.85	1858	3	1943	60	10	22.36
	30.70												
7a	3.30	SP/JL	24	0.41	830	340.3	0.8	898	4	1945	58	10	20.5
7b	0.40	SYC	0			0		0	4	1945	58		
	3.70												
8a	2.75	EL/SP	27	0.5	800	400	0.85	935	3	1948	55	8	19.2
8b	3.03	SP/JL	25	0.45	1063	487.35	0.85	1255	3	1948	55	8	19.7
8c	3.32	SP/JL				0		0	3	1998	5		
8d	2.93	SP/JL	23	0.37	640	236.8	0.85	590	3	1949	54	12	20.12
8e	3.58	SP/SS				0		0	3	1998	5		
8f	3.16	SP/SS	27	0.39	410	159.9	0.7	354	3	1949	54	12	19.8
8g	4.50	SP/SS	26	0.4	400	160	0.85	612	3	1950	53	10	17.8
8h	5.03	SP/JL	24	0.37	420	155.4	0.85	664	3	1950	53	10	18.08
8i	0.90	MB				0		0	3				
	29.20												
9a	4.01	EL/DF				0		0	2	1988	5		
9b	5.33	SP/EL	22	0.33	850	280.5	0.85	1271	3	1952	51	10	18.23
9c	1.23	SS(SP)	0			0		0	4	1993	10		
9d	4.34	SP	24	0.35	820	287	0.8	996	3	1959	44	10	16.5
9e	0.42	NS				0		0	4	1953	50		
	15.33												
10a	2.51	SP/SP	19	0.205	960	196.8	0.85	420	3	1957	46	10	15.88
10b	1.83	SS(SP)	0			0		0	3	1991	12		
10c	0.66	BARE	0			0		0	2				
10d	3.10	SP/SP	18	0.181	1050	190.05	0.7	412	2	1960	43	10	15.3
	8.10												
11a	3.01	SPIEL	21	0.28	820	229.6	0.85	587	2	1960	43	12	17.91
11b	2.04	EL/HL	22	0.38	600	228	0.85	395	2	1960	43	10	20.8
11c	1.33	SP	19	0.205	840	172.2	0.85	195	2	1962	41	10	15.66
11d	2.39	SS/JL(LP)				0		0	3	1990	13		
11e	2.33	HL	23	0.42	500	210	0.85	416	3	1963	40	12	20.94
11f	0.90	SP				0		0	3	1968	37		
	12.00												
12a	2.00	SP/SP	18	0.3	1100	330	0.8	528	3	1960	43	12	17
12b	1.51	JL				0		0	3	1999	4		
12c	2.39	SP				0		0	3	1960	43		
12d	0.50	NS				0		0	3	1960	43		
	6.40												
13	2.60	MB/BARE	0			0		0	4				
	2.60												

170.03