Forestry Commission England

Woodland Management Plan

To be completed by the plan author:		
Woodland or Property name	**Harlow District Council Woodland estate. Compartments 1 & 2. Hospital, Risdens and Parndon Woods. The SSSIs.**	
Woodland Management Plan case reference	**144000**	
The landowner agrees this plan as a statement of intent for the woodland		**Yes**
Plan author name	**Clive Ellis**	

For FC Use only:				
Plan Period *(dd/mm/yyyy - Ten years)*	**Approval Date:**	23/03/2023	**Approved until:**	23/03/2033
Five Year Review Date	23/03/2028			

Revision No.	Date	Status (draft/final)	Reason for Revision

Template user support:

The functionality in this version of the management plan template has been downgraded to ensure compatibility with Word 2003. This document is not protected and as such rows can be added & deleted or copied and pasted from tables where needed.

Forestry Commission England

UK Forestry Standard management planning criteria

Approval of this plan will be considered against the following UKFS criteria.
Prior to submission review your plan against the criteria using the check list below.

	UKFS management plan criteria	Minimum approval requirements	Author check ☑
1	**Plan Objectives:** Forest management plans should state the objectives of management and set out how an appropriate balance between social, economic, and environmental objectives will be achieved.	• Management plan objectives are stated. • Consideration is given to environmental, economic and social objectives relevant to the vision for the woodland.	Yes
2	**Forest context and important features in management strategy:** Forest management plans should address the forest context and the forest potential and demonstrate how the relevant interests and issues have been considered and addressed.	Management intentions communicated in ***Sect. 6*** of the management plan are in line with stated objective(s) ***Sect. 2***. Management intentions should take account of: • Relevant features and issues identified within the woodland survey (***Sect. 4***) • Any potential threats to and opportunities for the woodland, as identified under woodland protection (***Sect. 5***). • Relevant comments received from stakeholder engagement and documented in ***Sect. 7***.	Yes
3	**Identification of designations within and surrounding the site:** For designated areas, e.g. National Parks or SSSI, particular account should be taken of landscape and other sensitivities in the design of forests and forest infrastructure.	• Survey information (***Sect. 4***) identifies any designations that impact on woodland management. • Management intentions (***Sect. 6***) have taken account of any designations.	Yes
4	**Felling and restocking to improve forest structure and diversity:** When planning felling and restocking, the design of existing forests should be re-assessed and any necessary changes made so that they meet UKFS requirements. Forests should be designed to achieve a diverse structure of habitat, species and ages of trees, appropriate to the scale and context. Forests characterised by a lack of diversity, due to extensive areas of even-aged trees, should be progressively restructured to achieve age class range.	• Felling and restocking proposals are consistent with UKFS design principles (for example scale and adjacency). • Current diversity (structure, species, age structure) of the woodland has been identified through the survey (***Sect. 4***). • Management intentions aim to improve / maintain current diversity (structure, species, and ages of trees).	Yes
5	**Consultation:** Consultation on forest management plans and proposals should be carried out according to forestry authority procedures and, where required, the Environmental Impact Assessment Regulations.	• Stakeholder engagement is in line with current FC guidance and recorded in ***Sect. 7***. The minimum requirement is for statutory consultation to take place, and this will be carried out by the Forestry Commission. • Plan authors undertake stakeholder engagement (ref FC Ops Note 35) relevant to the context and setting of the woodland.	Yes
6	**Plan Update and Review:** Management of the forest should conform to the plan, and the plan should be updated to ensure it is current and relevant.	• A 5 year review period is stated on the 1st page of the plan. • ***Sect. 8*** is completed with 1 indicator of success per management objective.	Yes

Section 1: Property Details

Woodland Property Name		Hospital & Risdens Woods and Parndon Wood. SSSIs	
Name	Harlow District Council	Owner	
Email		Contact Number	
Agent Name (if applicable)		Clive Ellis	
Email		Contact Number	
County	Essex	Local Authority	Harlow
Grid Reference	TL443 067	Single Business Identifier	114128435
What is the total area of this woodland management plan? (In hectares)		24.46 Hospital & Risdens Woods 20.86 Parndon Wood	
You have included an Inventory and Plan of Operations with this woodland management plan?		Yes	
You have listed the maps associated with this woodland management plan?		Yes	
Do you intend to use the information within this woodland management plan and associated Inventory and Plan of Operations to apply for the following?		Felling Licence	Yes
		Thinning Licence	Yes
		Woodland Regeneration Grant	Yes/No
You declare that there is management control of the woodland detailed within the woodland management plan?		Yes	
You agree to make the woodland management plan publicly available?		Yes	

Section 2: Vision and Objectives

To develop your long term vision, you need to express as clearly as possible the overall direction of management for the woodland(s) and how you envisage it will be in the future. This covers the duration of the plan and beyond.

2.1 Vision

Describe your long term vision for the woodland(s). (*Suggest 300 words max*)

To have healthy, diverse, well structured woodlands, providing public access while developing and maintaining habitat for biodiversity. The woodlands will improve their resilience to climate change through increasing species and age diversity, and through sustaining regeneration, seedling establishment and maintenance of suitable light conditions. With ongoing management of woodland, carbon sequestration will be sustained by the (re)growing stock, compared to non-intervention management. With good communications, local walkers and woodland users will have an understanding of the need for woodland management and tolerance of the impact that operations can have.

2.2 Management Objectives

State the objectives of management demonstrating how sustainable forest management is to be achieved. Objectives are a set of specific, quantifiable statements that represent what needs to happen to achieve the long term vision.

No.	Objectives (include environmental, economic and social considerations)
1	To maintain healthy and diverse woodlands which are resilient to climate change, and make a positive contribution to carbon sequestration.
2	To maintain and improve habitat for biodiversity and achieve favourable condition status on both SSSI units.
3	To enable public access via public and permissive footpaths.
4	For management to be at least cost neutral in the short and medium term across Harlow Council's woodland estate as a whole, though it may be necessary to use some profits from the council's non-SSSI woodlands to manage Harlow Woods SSSI for nature conservation.
5	To communicate the importance of biodiversity and woodland resilience to visitors and the need for woodland management operations.

Section 3: Plan Review – Achievements

Use this section to identify achievements made against previous plan objectives. This section should be completed at the 5 year review and could be informed through monitoring activities undertaken.

Objectives	Achievement
2014-2019 plan for Hospital and Risdens Wood. Relevant objectives.	
1. Continue 16 year coppice cycle. Expand ride and glade management into the southern part of the wood.	Most of the planned coppicing has been done to date (June 2022), apart from the last couple of years. No evidence of new or reinstated rides and glades in the south.
2. Maintain oak canopy in the north, and varied structure in the south.	Oak standard canopy has mainly been maintained in the north although crowns have been impacted over time due to competition. There is some mortality following exposure after coppicing. Structure in the south has diversified under the non-contiguous coppicing programme, when taken together with the remaining un-coppiced areas.
3. To maintain habitat diversity along rides and streams and enhance the glades, and the pond within the wood.	This is an ongoing activity which has not been sustained in the last year or two due to lack of resources.
4. To create and maintain appropriate levels of standing and fallen deadwood and to appropriately manage veteran trees.	Sufficient deadwood has been created. Standards/potential veteran trees have not been halo thinned in un-coppiced areas. There are areas where the standard canopy density is high. Over exposure of standards/potential veterans after coppicing has created stress from which most are recovering, but also increased mortality. This contributes to the stock of standing deadwood.
Parndon Wood management and maintenance plan 2020-2021.	
Although this has no stated objectives, it aims to maximise environmental and recreational potential of its nature reserves and open spaces. Aims are more about social provision.	As a site of recreation, the northern section of Parndon Wood, sub-compartment 2a, has pleasant rides and glades, a tea shop and toilet block. Educational activity is provided in a safe natural environment. The wood consists of closely managed in-cycle coppice. The Southern section is fenced off from the public and is mid-way through its current non-contiguous coppice programme.

Section 4: Woodland Survey

This section is about collecting information relating to your woodland and its location, including any statutory constraints i.e. designations.

4.1 Description

Brief description of the woodland property:
Hospital & Risdens and Parndon Woods are important landscape features straddling a ridge to the south of Harlow town and rising to 97 metres at the highest point. Soils are broadly a clay loam in the north and chalky boulder clay to the south as the ridge slopes away. These SSSI sites are of mature hornbeam coppice with oak standards, with a long history of management as coppice woodland. The woods are currently managed for public access, education and environmental objectives.

4.2 Information

Use this section to identify features that are both present in your woodland(s) and where required, on land adjacent to your woodland. It may be useful to identify known features on an accompanying map. Woodland information for your property can be found on the Magic website or the Forestry Commission Land Information Search.

Feature	Within Woodland(s)	Cpts	Adjacent to Woodland(s)	Map No
Biodiversity- Designations				
Site of Special Scientific Interest	Yes (Harlow Woods)	1 & 2	No	
Special Area of Conservation	No		Yes/No	
Tree Preservation Order	Yes	1 & 2	Yes/No	
Conservation Area	No		Yes/No	
Special Protection Area	No		Yes/No	
Ramsar Site	No		Yes/No	
National Nature Reserve	No		Yes/No	
Local Nature Reserve	Yes (Parndon Woods & Common)	1&2	Yes (Parndon Woods & Common)	
Other (please Specify): Local Wildife Site	Yes		Yes (Ha12 Parndon Common & Ha14 Parndon Wood Link))	
Notes	Harlow Woods SSSI https://designatedsites.naturalengland.org.uk/PDFsForWeb/Citation/1003294.pdf NVC predominantly W8, but W10 in southern areas over ridge.			

Feature		Within Woodland(s)	Cpts	Map No	Notes
Biodiversity - European Protected Species					
Bat	Species (if known)	Yes	All		Brown long-eared Pipistrelle Soprano Pipistrelle Natterer's Daubenton's
Dormouse		No			
Great Crested Newt		Yes			
Otter		No			
Sand Lizard		No			
Smooth Snake		No			
Natterjack Toad		No			

Biodiversity – Priority Species					
Schedule 1 Birds	Species:	Yes			Fieldfare Redwing Brambling Red Kite Kingfisher Treecreeper
Mammals (Red Squirrel, Water Vole, Pine Marten etc)		No			
Reptiles (grass snake, adder, common lizard etc)		Yes			Grass snake Slow Worm
Plants		No			
Fungi/Lichens		No			No recent surveys
Invertebrates (butterflies, moths, beetles etc)		No			2010 (EECOS) survey recorded several notable species, but no Section 41 Priority Species.
Amphibians (pool frog, common toad)		Yes			Common Frog Common Toad Smooth Newt Palmate Newt GCN
Other (please Specify):		No			
Historic Environment					
Scheduled Monuments		No			
Unscheduled Monuments		No			
Registered Parks and Gardens		No			
Boundaries and Veteran Trees		Yes	1&2		
Listed Buildings		No			
Other (please Specify):		No			
Landscape					
National Character Area (please Specify): South Suffolk and North Essex Clayland					
National Park		No			
Area of Outstanding Natural Beauty		No			
Other (please Specify):		No			
People					
CROW Access		No			
Public Rights of Way (any)		No			
Other Access Provision		Yes			Access provided to public on set days/times
Public Involvement		Yes			Active volunteer group
Visitor Information		Yes			Visitor centre
Public Recreation Facilities		Yes			Visitor centre

Provision of Learning Opportunities	Yes			
Anti-social Behaviour	Yes			
Other (please Specify):	Yes/No			
Water				
Watercourses	Yes	1a, 1c & 1d. 2a		Ditches and drains. Including leaky dams.
Lakes	No			
Ponds	Yes	1a & 2a		
Other (please Specify):	No			

4.3 Habitat Types

This section is to consider the habitat types within your woodland(s) that might impact/inform your management decisions. Larger non-wooded areas within your woodland should be classified according to broad habitat type where relevant this information should also help inform your management decisions. Woodlands should be designed to achieve a diverse structure of habitat, species and ages of trees, appropriate to the scale and context of the woodland.

Feature	Within Woodland(s)	Cpts	Map No	Notes
Woodland Habitat Types				
Ancient Semi-Natural Woodland	Yes	1&2		
Planted Ancient Woodland Site (PAWS)	No			
Semi-natural features in PAWS	No			
Lowland beech and yew woodland	No			
Lowland mixed deciduous woodland	Yes	1&2		
Upland mixed ash woods	No			
Upland Oakwood	No			
Wet woodland	No			
Wood-pasture and parkland	No			
Other (please Specify):	No			
Non Woodland Habitat Types				
Blanket bog	No			
Fenland	No			
Lowland calcareous grassland	No			
Lowland dry acid grassland	No			
Lowland heath land	No			
Lowland meadows	No			
Lowland raised bog	No			
Rush pasture	No			
Reed bed	No			
Wood pasture	No			
Upland hay meadows	No			
Upland heath land	No			
Unimproved grassland	No			
Peat lands	No			
Wetland habitats	No			
Other (please Specify):	No			

4.4 Structure

This section should provide a snapshot of the current structure of your woodland as a whole. A full inventory for your woodland(s) can be included in the separate Plan of Operations spreadsheet. Ensuring woodland has a varied structure in terms of age, species, origin and open space will provide a range of benefits for the biodiversity of the woodland and its resilience. The diagrams below show an example of both uneven and even aged woodland.

Woodland Type (Broadleaf, Conifer, Coppice, Intimate Mix)	Percentage of Mgt Plan Area	Age Structure (even/uneven)	Notes (i.e. understory or natural regeneration present)
Older/neglected hornbeam coppice with closely spaced oak standards	50	Uneven	There is a 30m strip of ash standards mixed with oak, elm, hornbeam and hawthorn on the south side of Hospital Wood. Very little ash in Parndon Wood. Low species diversity due to the nature of the traditional silviculture. Includes sessile as well as pedunculate oak species.
In-cycle, recently coppiced or thicket stage hornbeam with closely spaced oak standards.	50	Uneven	Maintained rides and glades in Parndon north. Some planting. Low species diversity due to the nature of the traditional silviculture. Low planted oak numbers. Large areas of bramble. Includes sessile as well as pedunculate oak species.

Section 5: Woodland Protection

Woodlands in England face a range of threats; this section allows you to consider the potential threats that could be facing your woodland(s). Use the simple Risk Assessment process below to consider any potential threats to their woodland(s) and whether there is a need to take action to protect their woodlands.
Note: To add more tables, Copy the table and Paste below.

5.1 Risk Matrix

The matrix below provides a system for scoring risk. The matrix also indicates the advised level of action to take to help manage the threat.

Impact	High	Plan for Action	Action	Action
	Medium	Monitor	Plan for Action	Action
	Low	Monitor	Monitor	Plan for Action
		Low	Medium	High
		Likelihood of Presence		

5.2 Plant health

Threat (e.g. Ash Dieback, *Phytophthora,* Needle Blight etc)	Acute oak decline
Likelihood of presence (high/medium/low)	High
Impact (high/medium/low)	High
Response (inc protection measures)	Halo thin crowns. When creating regeneration gaps, retain shade trees to protect stems. Where necessary, plant new standards using site native species of local provenance.

Threat (e.g. Ash Dieback, *Phytophthora,* Needle Blight etc)	Ash dieback
Likelihood of presence (high/medium/low)	High in the south of Hospital Wood
Impact (high/medium/low)	High
Response (inc protection measures)	Thin ash to healthiest specimens, retaining a light canopy and increasing ventilation. The aim is to encourage tolerant females and establish seedlings protected in nearby brash piles. In addition, small gaps amongst the matrix will enable species diversification including some enrichment planting using site native species of local provenance where

	necessary, as well as ash seedling regeneration.

5.3 Deer

Species - Likelihood of presence (high/medium/low)	Muntjac, fallow. High.
Impact (high/medium/low)	Currently Medium but in the past High, before adequate deer fencing of recently coppiced areas and deer management was implemented.
Response (inc protection measures)	Protect stools with brash and plant new saplings in 1.5 meter tubes. Frequent monitoring of population & damage especially in regeneration gaps; prompt installation of deer fencing (Heras or similar) if/when monitoring shows significant damage. Consider also small deer exclosures of maybe 5 or 10 m^2

5.4 Grey Squirrels

Likelihood of presence (high/medium/low)	High
Impact (high/medium/low)	Though squirrels' potential impact on timber production might be 'medium', it's only 'low' in terms of meeting the SSSI's favourable condition targets.
Response (inc protection measures)	Monitor

5.5 Livestock and Other Mammals

Threat (Sheep, Horse, Rabbit etc)	None
Likelihood of presence (high/medium/low)	
Impact (high/medium/low)	
Response (inc protection measures)	

5.6 Water & Soil

Threat (Soil Erosion, Acidification of	Compaction from machinery undertaking

Water, Pollution incidents etc)	woodland operations.
Likelihood of presence (high/medium/low)	High
Impact (high/medium/low)	High
Response (inc protection measures)	Limit operations to dry conditions where possible. Create and retain permanent extraction routes accessing sub-compartments (see example in map 2) with a thick brash mat topped up as required. Create brash mats to reduce compaction within sub-compartments.

5.7 Environmental

Threat (Pollution, Fire, Flood, Wind, Invasive Species, etc)	Air pollution from proposed housing developments
Likelihood of presence (high/medium/low)	Medium
Impact (high/medium/low)	Medium
Response (inc protection measures)	Monitor

Threat (Pollution, Fire, Flood, Wind, Invasive Species, etc)	Past incident of flooding in Parndon Wood from adjacent water company site. Risk of recurrence
Likelihood of presence (high/medium/low)	Low
Impact (high/medium/low)	Medium
Response (inc protection measures)	Monitor

5.8 Social

Threat (Rights of Way, CROW, permissive access, events sporting rights, Anti-social Behaviour etc)	Potential for public intolerance of necessary woodland management work.
Likelihood of presence (high/medium/low)	High
Impact (high/medium/low)	High
Response (inc protection measures)	Communicate intentions and advance warnings of impact. Aim to minimise impact, including adoption of gap regeneration silviculture.

Threat (Rights of Way, CROW,	Permissive and open access, with unwelcome

permissive access, events sporting rights etc)	side effects, including tree cutting, arson, bicycle and motorbike ramps. Vandalism of deer fencing.
Likelihood of presence (high/medium/low)	High
Impact (high/medium/low)	High
Response (inc protection measures)	Arrange silvicultural operations and resultant brash and bramble growth to minimise damage to regenerating trees, shrubs and flowers. Under a gap regeneration scheme, whether protection comprises Heras fencing, tree tubes, or just brash, it is possible that some gaps may experience vandalism and loss of emerging or young trees. Monitor fencing and repair.

5.9 Economic

Threat (Timber forecasting, markets, products, operational costs etc)	Operational costs
Likelihood of presence (high/medium/low)	High
Impact (high/medium/low)	Medium
Response (inc protection measures)	Balance planned work with timber/grant income. See strategy.

Threat (Timber forecasting, markets, products, operational costs etc)	Markets
Likelihood of presence (high/medium/low)	Medium
Impact (high/medium/low)	Medium
Response (inc protection measures)	Management implementation can be delayed if timber markets are very low. Implement woodland budget/account including potential Countryside Stewardship grant and spread income from other woodland estates, ie Latton wood conifer sales.

5.10 Climate Change Resilience

Threat (Uniform Structure, Provenance, Lack of Diversity etc)	Lack of species diversity and regeneration
Likelihood of presence	High

(high/medium/low)	
Impact (high/medium/low)	High
Response (inc protection measures)	Create regeneration gaps and plant using site native species of local provenance where possible, as well as a new generation of local provenance pedunculate or sessile oak standards. Encourage the development of planted future seed trees.

Section 6: Management Strategy

This section requires a statement of intent, setting out how you intend to achieve your management objectives and manage important features identified within the previous sections of the plan. A detailed work programme by sub-compartment can be added to the Plan of Operations.

Management Objective / Feature	Management Intention
To maintain healthy and diverse woodlands which are resilient to climate change, and make a positive contribution to carbon sequestration.	Where climate change and increased atmospheric nutrients are likely causes of declines and death of trees in British woodlands, it is considered that management of estates must aim to keep woodlands cool as far as possible, and diverse. Although thinning lets in some heat, it is important for structural development, health and ventilation. And while coppicing is valuable for regeneration and development of scrubby habitat, it also increases temperatures of the woodland interior in the spring and summer, stressing standard trees (such as oak - with greater risk of Acute Oak Decline), and in an ash rich region, increasing the incidence and speed of Ash Dieback and death. Whether ancient or secondary woodland, with the acknowledged impact of climate change, tree/plant health considerations are becoming increasingly important and represent a challenge when maintaining some forms of traditional silviculture, particularly in landscapes with fragmented woodland cover where movement of species in response to changing conditions is difficult. **Coppicing.** A proportion of the Harlow Council woodland blocks, especially in the SSSIs, have been

	undergoing a re-coppicing programme, having fallen out of cycle to some extent. Apart from acknowledged benefits, this traditional silviculture has a number of drawbacks. It has a high visual impact, takes a lot of time which could be spent on other essential work on the woodland estate, exposes standard oak to sudden shock resulting in a significant proportion of mortality and becomes inaccessible through the thicket phase. It can also be quite uneconomic where it involves cutting small, unsaleable material. **Priorities and halo thinning.** Where woodland work has fallen out of cycle, competition for light and resources increases stress for trees in a stand. This leads to diminished crowns, reduced resilience and susceptibility to disease. Priorities for woodland work across the whole estate have to be established so that limited human resources are most effective. Where a prime objective is to improve woodland habitat for biodiversity, focus must be placed on improving crown health. Judicious halo thinning of standards and veterans is therefore a priority activity. If taken in conjunction with a reduced impact silviculture of the matrix, the result will be to increase light, ventilation, regeneration and diversity. **Gap regeneration or Low impact silvicultural systems.** Alongside halo thinning, woodland activity also needs adjusting to a system which aims to retain the canopy while regenerating trees and shrubs in small gaps, with sufficient light for viable establishment of a new age class. These regeneration gaps may also be considered as smaller but more locally distributed coppice coupes, where the size of gap compared to a larger coupe is the key difference, as well as having a number of phases over a cycle. Gaps of up to 0.1 hectares (up to about 36 meters in diameter) can be created either as a result of felling larger mature coppice stools or groups of trees, or expanding small areas of pre-existing (advanced) regeneration, or in order to develop scrub. Regeneration will

	therefore involve mainly seedlings, coppice or planting. Because this work will occur over a larger area than a normal single coppice coupe and over a planned time period or cycle, this is termed a periodic group selection system. For each intervention, up to 2 gaps may be created per hectare. This represents potentially 20% of the total area. However the system will be flexible, in terms of the number, size and position of gaps chosen. At the micro level, some areas may not need any whilst for others, gap regeneration may be very important. Coppice shoots and seedlings will be supplemented with the planting of pedunculate and sessile oak of local provenance, as well as other site-native species of local provenance which may have been browsed out or lost. Planted trees will need maintenance to prevent them being overtopped by vegetation or very vigorously regenerating stools. A number of interventions are specified to fit into a given cycle. If the area is given a 30 year cycle for example, it is likely to benefit from 3 interventions at 10 yearly periods. If each intervention covered 20% of the area, a maximum total of 60% could be regenerated by the end of the cycle. The remaining 40% will consist of maturing standards on a longer cycle or veterans. These will need ongoing halo thinning where necessary. Returning to the sub-compartments during the cycle in this planned way allows for management of gap edge trees, if any should be reducing light in the gap. Gaps may therefore grow in size, and as they grow, further shade tolerant seedlings or coppice regeneration may develop. Estimated total volumes for each intervention will allow about 10% for thinning within the stand as well as up to 20% for gap creation, potentially making a total of 30%. This system allows the regeneration or establishment of light demanding species such as oak, birch or cherry which can be planted in

	the most open aspect of the gaps. Shade tolerant trees will be more able to establish and survive at the edges. With gaps regenerating in different phases of the cycle, access throughout compartments will generally be sustained, rather than whole areas being blocked during the thicket stage. This allows better access for maintenance of planted trees. **Hospital and Risden's Wood** will be managed on this periodic group selection system. A sub-compartment structure has been devised to create 11 manageable areas: one per year. With 3 interventions over a 33 year cycle, each sub-compartment will have work every 11 years. Given that about half the wood has been in a non-contiguous coppice cycle, the new sub-compartments will incorporate areas where little work needs doing during the first cycle. The southern section of **Parndon Wood**, sub-compartments 2b-2e, is also about half way through a non-contiguous coppice cycle. This has been divided into 4 sub-compartments so that on a 30 year cycle there will be 3 interventions every 10 years. However, with Parndon Wood being managed in-house, initially the 4 sub-compartments may be worked over a 4 year period, 1 per year, which will allow sooner attention for the halo thinning of the oak standards. The northern part of Parndon Wood, sub-compartment 2a, is in-cycle coppice. For the purposes of this 10 year plan, no silvicultural work is needed. A subsequent plan will divide it into suitable sized sub-compartments of about 2 hectares and beginning with the area of greatest need will begin a new approximate 30 year selection system of gaps and thinning. The diversity of these approaches and systems will maximise health and resilience in the compartments of these valued ancient woodlands. Close contractor supervision under an experienced site manager will be required for these silvicultural approaches, including the

	marking of halo thinning and gap creation, as well as brash placement and handling.
To maintain and improve habitat for biodiversity consistent with Harlow Woods SSSI Conservation Objectives	Allowing light to the woodland floor through gap regeneration and thinning will develop a thickening ground and shrub layer, providing suitable habitat/refugia for birds and small mammals as well as opportunities for wildflowers and shrubs to flower and fruit. Limited cover of bramble will be welcomed for its protective functions as well as a food source for insects, mammals and birds. Dead wood and brash will be left on the woodland floor to increase invertebrate habitat and food sources. A number of veterans, future veterans and maturing standards will be identified per compartment during the process of marking, which will have careful light management while avoiding over-exposure. These will provide habitat and potentially a food source for a number of species such as bats. **Rides.** Well managed rides provide suitable conditions for characteristic 'coppice' flora and fauna – such as spring flowers and butterflies - and many other species associated with open and 'edge' habitats. Rides act as 'reservoirs' from which species can expand, into newly created regeneration gaps. Ride structures exist in all the council's woods and these will be maintained under a 3rd zone cutting regime when sub-compartment operations are due.
To enable public access via public and permissive footpaths.	The council will continue to welcome considerate walkers. The gap regeneration system will retain the appearance of woodland structure and reduce the visual impact and complaints about woodland work. Where suitable, safe access will be improved with renewed infrastructure, subject to SSSI consent from Natural England.
For management to be at least cost neutral in the short and medium term.	The manager will look to create gaps where there are mature stools or stems of sufficient volume, to make the work economically effective. The standard oak canopy can be thinned where it is judged to be overstocked, yielding sawlogs for sale. Timber from halo or matrix thinning will be added to the saleable volume of produce.

	The gap regeneration system gradually selects stems and stools which are ready for harvest, concentrating best contractor value, while allowing slower growing or half developed stools and stems to continue growing. When planning operations, marking will identify unsafe trees over footpaths, which can be taken down as part of forthcoming operations, reducing the cost of (reactive) safety work. Keeping footpaths clear after normal coppicing can be expensive and require organisational effort. While unsafe trees can be taken down as part of operational work, with the group selection system, canopy can be retained over paths, avoiding the vigorous regrowth of the thicket phase which results in blocked and altered paths.
To communicate the importance of biodiversity and woodland resilience to visitors and the need for woodland management operations.	Public information notices for each operation will be deployed on foot paths where there are forthcoming operations, with a link to an appropriate page on the Council's website (or a dedicated woodland website), where a copy of the strategy and thinking behind the relevant work will be available, along with a map and full information of citations, objectives and strategies. The public can also be referred to this by staff if they are contacted directly.

Section 7: Stakeholder Engagement

There can be a requirement on both the FC and the owner to undertake consultation/engagement. Please refer to Operations Note 35 for further information. Use this section to identify people or organisations with an interest in your woodland and also to record any engagement that you have undertaken, relative to activities identified within the plan.

Work Proposal	Individual/ Organisation	Date Contacted	Date feedback received	Response	Action
Thinning and gap regeneration of SSSI	Charlie Williams and Rebecca Coward of Natural England	Site meeting on 17.11.2022	9.12.2022	Incorporated comments onto body of plan.	None
Thinning and gap regeneration	Harlow DC				

Section 8: Monitoring

Indicators of progress/success should be defined for each management objective and then checked at regular intervals. Other management activities could also be considered within this monitoring section. The data collected will help to evaluate progress.

Management Objective/Activities	Indicator of Progress/Success	Method of Assessment	Frequency of Assessment	Responsibility	Assessment Results
To maintain healthy and diverse woodlands which are resilient to climate change, and make a positive contribution to carbon sequestration.	Ongoing programme of halo thinning and gap regeneration, resulting in increased light and ventilation, emerging regeneration, supplementary planting and light development of bramble understorey.	Walk over survey	Annual	Manager	To be reported on, with results used to inform future operations. Browsing damage by deer to be kept at a low enough level to allow adequate natural regeneration across the SSSI (using deer fencing, stalking and other protective measures).
To maintain and improve habitat for biodiversity consistent with Harlow Woods SSSI Conservation Objectives	Increased deadwood on the woodland floor. Developing regeneration of bramble in the	Walk over survey (refer to Natural England's condition assessment	Annual	Manager	To be reported on, to review future operations.

	shrub layer, conditions suitable for bird nesting. Emergence of wildflowers in spring and increased insect habitat.	methodology .			
To enable public access via public and permissive footpaths.	Sustained existing arrangements of permissive and public access	Assess access conditions for each wood. Respond to reports from members of the public.	Ongoing	Manager	None
For management to be at least cost neutral in the short and medium term.	Financial balance when planning operations and at out-turn across woodland estates.	Review accounts	For each operation and overall annually	Manager	Annual results used to inform future operations.
To communicate the importance of biodiversity and woodland resilience to visitors and the need for woodland management operations.	Development of website with information on the need for important ecological work. Including citations, objectives and strategy. Use of signs. Ultimate indicator would be few objections and	Ongoing review	Ongoing	Council staff and manager	Discussion on future management of the public and their expectations.

	little waste of staff time fielding questions and objections.				

Forestry Commission England

UK Forestry Standard woodland plan assessment

For FC office use and approval only:

UKFS management plan criteria	Minimum approval requirements	Achieved	Review notes
Plan Objectives: Forest management plans should state the objectives of management and set out how an appropriate balance between social, economic, environmental objectives will be achieved.	• Management plan objectives are stated. • Consideration is given to environmental, economic and social objectives relevant to the vision for the woodland.	**Yes/~~No~~**	
Forest context and important features in management strategy: Forest management plans should address the forest context and the forest potential and demonstrate how the relevant interests and issues have been considered and addressed.	Management intentions communicated in ***Sect.6*** of the management plan are in line with stated objective(s) in ***Sect. 2***. Management intentions should take account of: • Relevant features and issues identified in the woodland survey (***Sect. 4***). • Any potential threats to and opportunities for the woodland, as identified under woodland protection (***Sect. 5***). • Relevant comments received from stakeholder engagement are documented in ***Sect. 7***.	**Yes/~~No~~**	
Identification of designations within and surrounding the woodland site: For designated areas, e.g. National Parks or SSSI, particular account is taken of landscape and other sensitivities in the design of forests and forest infrastructure.	• Survey information (***Sect. 4***) identifies any designations that impact on woodland management. • Management intentions (***Sect. 6***) have taken account of any designations.	**Yes/~~No~~**	
Felling and restocking to improve forest structure and diversity: When planning felling and restocking, the design of existing forests should be re-	• Felling and restocking proposals are consistent with UKFS design principles (for example scale and adjacency). • Current diversity (structure, species, age	**Yes/~~No~~**	

assessed and any necessary changes made to meet UKFS requirements. Forests should be designed to achieve a diverse structure of habitat, species and age range of trees, appropriate to the scale and context. Forests characterised by a lack of diversity, due to extensive areas of even-aged trees, should be progressively restructured to achieve age class range.	structure) of the woodland has been identified through the survey (***Sect. 4***). • Management intentions aim to improve / maintain current diversity (structure, species, and ages of trees).		
Consultation: Consultation on forest management plans and proposals should be carried out according to forestry authority procedures and, where required, the Environmental Impact Assessment (Forestry) Regulations.	• Stakeholder consultation is in line with current FC guidance, and recorded in ***Sect. 7***. The minimum requirement is for statutory consultation to take place, and this will be carried out by the Forestry Commission. • Plan authors undertake stakeholder engagement (ref FC Ops Note 35) relevant to the context and setting of the woodland.	**Yes/~~No~~**	
Plan update and review: Management of the forest should conform to the plan, and the plan should be updated to ensure it is current and relevant.	• A 5 year review period is stated on the 1st page of the plan • ***Sect. 8*** is completed with 1 indicator of success identified per management objective	**Yes/No**	N/A

Approved in Principle *This means the FC is happy with your plan; it meets UKFS requirements.* *a) You can use it to support a CS-HT or other grant application.* ***b) You do not yet have a licence to undertake any tree felling in the plan.***	**Name (WO or FM):** Emma Brearley	**Date:** 23/01/23
Approved *This means FC is happy with your plan; it meets UKFS requirements, and we have also approved a felling licence for any tree felling in the plan (where required).*	**Name (AO, WO or FM):** Zoltan Varju	**Date:** 28/03/2023

Compartments 1 & 2
Hospital and Risden's and Parndon's Woods
TL443 067
Map 1

Compartments 1 & 2.
Hospital, Risdens and Parndon Woods
Map 3
Work programme

Key

Sub-compartments

Gaps and thin, year

Kingsmoor

Markwell Wood

Risdens Wood

Hospital Wood

Parndon Wood

Parndon Wood Cemetery and Crematorium

Collects

Playing Field

Dorrington Farm

Rye Hill Reservoir

Reservoirs (cov)

Rye Hill

Severs Green

Parndon Wood Road

Long Wood

Paddocks

Drain

Track

Sks

207000

North

100 m 0 300 m

1: 6,000

Compartments 1 & 2
Hospital, Risdens and Parndon Woods
Map 2
Features

Key

- Ponds
- Paths
- Existing hard access
- Rides
- Stream
- Extraction route

Kingsmoor

Markwell Wood

Risdens Wood

Hospital Wood

Parndon Wood

Collects

Parndon Wood Cemetery and Crematorium

Playing Field

Rye Hill

Rye Hill Reservoir

Reservoirs (cov)

Sks

Drain

Drain

Drain

Drain

Track

Ford

PARNDON WOOD ROAD

PARSLOE ROAD

MARKWELL WOOD

LONG WOOD

BEECROFT

PADDOCKS

72m

73m

74m

76m

86m

88m

108m

108m

108m

North

100 m 0 400 m

1: 6,000


Compartments 1 & 2
Hospital, Risdens and Parndon Woods
Map 2
Features
Key
Ponds
Paths
Access to stacking and loading
Rides
Stream
Kingsmoor
Markwell Wood
Risdens Wood
Hospital Wood
Parndon Wood
Parndon Wood Cemetery and Crematorium
Rye Hill Reservoir
Reservoirs (cov)
Rye Hill
Collects
Drain
Track
Sks
Field
Severs Gr
Ford
73m
76m
88m
94m
102m
106m
108m
North
100 m
0
400 m
1: 6,000