

Woodland Management Plan

To be completed by the plan author:				
Woodland or Property name	Earth Trust Woodlands			
Woodland Management Plan case reference	UR00354			
The landowner agrees this plan as a statement of intent for the woodland Yes				
Plan author name	Tim Read			

For FC Use only:					
Plan Period (dd/mm/yyyy - Ten years)	Approval Date:	18/04/2019	Approved until:	18/04/2029	
Five Year Review Date	18/04/2024				

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.



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/No
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/No
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 (<i>Sect. 4</i>) identifies any designations that impact on woodland management. Management intentions (<i>Sect. 6</i>) have taken account of any designations. 	Yes/No
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 (<i>Sect. 4</i>). Management intentions aim to improve / maintain current diversity (structure, species, and ages of trees). 	Yes/No
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 <i>Sect. 7</i>. 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
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/No

Section 1: Property Details

Woodland Property Name		Earth Trust Woodlands			
Name	Earth Trust	Owner: Yes	Tenant		
Email	Tim.read@earthtrust.org.uk	Contact Number	075878834	29	
Agent Nam	ne (if applicable): N/A				
Email		Contact Number			
County	Oxfordshire	Local Authority	South Oxfo	rdshire	
Grid Reference	SU 569 928 (centre of site)	Single Business Identifier	106305800		
What is the manageme	e total area of this woodland ent plan? (In hectares)	129.5			
You have i Operations plan?	ncluded an Inventory and Plan of with this woodland management	Yes			
		Map 1: Earth Trust estate and woodland areas			
		Map 2: Woodland compartments			
		Map 3: Thinning carried out in Little Wittenham Wood, 2011-2017			
You have l	isted the mans associated with	Map 4: Vegetation stands			
this woodla	and management plan?	Map 5: Ecological Features			
		Map 6: Designations			
		Map 7: Public access			
		Map 8: Ride Side Coppicing in Little Wittenham Wood			
		Map 9 : Non-woodland Areas			
Do you inte	end to use the information within	Felling Licence		Yes	
associated	Inventory and Plan of Operations	Thinning Licence		Yes	
to apply fo	r the following?	Woodland Regenera	ation Grant	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)

The Earth Trust Farm is a 497Ha mixed farm comprising arable land, permanent pasture and woodland. There are six distinct woodlands across the farm, including our three Living Plant Collections.

Little Wittenham Wood SSSI SAC

A mature, mixed species woodland managed through a continuous cover system to create a varied structure with annual thinning, rotational coppice and rideside scallop management. The wood will have sheltered, scrubby margins providing a haven for birds, small mammals and invertebrates. Forestry work will provide an income for the Trust and produce timber sold locally allowing the Trust to demonstrate the story of wood from Woodland to Workshop. The wood will support thriving populations of amphibians, including Great Crested Newts. There will inspiring spaces for engagement and education including den building, tree climbing and bushcraft.

Wittenham Clumps and Rookery

The clumps will be maintained as the iconic hill-top plantation with scrub around the edge kept low through rotational cutting. Access will be maintained for as long as it is safe to do so. The Rookery will be maintained as a sheltered footpath and wooded area used for engagement and educational events.

Paradise Wood

Paradise Wood will be an inspirational collection, used for a variety of woodland research. It will be maintained primarily for research but will also feature wide, sunny rides and mixed species shelter belts. The deer fence will be maintained and pest control will take place in order to keep damage to a minimum. Public access will be restricted but events will be held here to demonstrate the importance of the Trust's plant collections.

Neptune Wood

Neptune wood will continue to be a popular destination for visitors and will provide us with engagement opportunities through guided walks, events and interpretation.

Broad Arboretum

Broad arboretum will be maintained as a living collection of trees and scrub native to Oxfordshire. Visitors will be encouraged to make use of the space through events, demonstrations and the provision of a circular walk from the Earth Trust Centre.



North Farm

The North Farm woodlands are varied and their use will mirror this. The wet woodland blocks bordering the Thames will be managed through a combination of minimal intervention and rotational pollarding. The typical farm woodland plantations will be actively managed under a continuous cover system as well as providing opportunities for pest control, grazing with pigs, and engagement activities such as wild camping.

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 the breeding and terrestrial habitats (particularly in compartment 1)
	in optimal condition for amphipians and dragonflies/damselflies (both listed
	under the SSSI designation).
2	To maintain compartment 1 in favourable condition, such that it supports locally
	appropriate broadleaved species (such as Oak, Hazel, Field Maple, Silver Birch,
	Willow etc) with varied age structure and a healthy understory. This will be
-	achieved through a continuous cover system and rotational coppice.
3	To maintain public access across all compartments where is currently exists and
	review the need for additional access.
4	To maximise potential for wildlife along rides through developing wider rides
	with scrub margins through cyclical ride-side coppicing and ride mowing.
5	To provide sufficient timber for the Earth Trust heating system (c. 200 cubic
	meters per year) and a new Earth Trust firewood business (c.200 cubic meters
6	per year).
6	To maintain compartments 2b and 2c as prominent landscape features by
-	employing a continuous cover system.
/	To maintain compartment 3 (Paradise Wood) as a national research woodland
0	and disseminate the results of any research to our various audiences.
ð	To maintain compartment 5 (Broad Arboretum) as a demonstration of tree and shrub species pative to Oxfordshire
0	Sillub species fidure to Oxfordsfille.
9	To continue the pigs in woodiand project in compartment o (North Farm) and to manitar progress to oncure that the topant is able to maintain a viable business.
	the trees are not subject to undue damage and the ground flora is able to
	recover post grazing.
10	To manage the relatively young farm woodland plantations in compartment 6 so
	that they support locally appropriate species of deciduous trees with and uneven
	structure in age and form.
11	To manage the compartments alongside the river Thames to ensure safe
	navigation of the river whilst maintaining a population of healthy pollards with
	associated ground flora.
12	To monitor populations of pest species, principally deer and grey squirrels, and
	ensure that appropriate pest control is in place to such that planted trees,
	natural regeneration and coppice regeneration can all successfully establish and



No. Objectives (include environmental, economic and social considerations) reach maturity.

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
To maintain the breeding and	
terrestrial habitats (particularly in	
compartment 1) in optimal condition	
for amphipians and	
dragonflies/damselflies (both listed	
under the SSSI designation).	
To maintain compartment 1 in	
favourable condition, such that it	
supports locally appropriate	
broadleaved species (such as Oak,	
Hazel, Field Maple, Silver Birch, Willow	
etc) with varied age structure and a	
healthy understory. This will be	
achieved through a continuous cover	
system and rotational coppice.	
To maintain public access across all	
compartments where is currently exists	
and review the need for additional	
access.	
To maximise potential for wildlife along	
rides through developing wider rides	
with scrub margins through cyclical	
ride-side coppicing and ride mowing.	
To provide sufficient timber for the	
Earth Trust heating system (c. 200	
cubic meters per year) and a new Earth	
Trust firewood business (c.200 cubic	
meters per year).	
To maintain compartments 2b and 2c	
as prominent landscape features by	
employing a continuous cover system.	
To maintain compartment 3 (Paradise	
Wood) as a national research woodland	
and disseminate the results of any	
research to our various audiences.	
To maintain compartment 5 (Broad	
Arboretum) as a demonstration of tree	



and shrub species native to	
Oxfordshire.	
To continue the pigs in woodland	
project in compartment 6 (North Farm)	
and to monitor progress to ensure that	
the tenant is able to maintain a viable	
business, the trees are not subject to	
undue damage and the ground flora is	
able to recover post grazing.	
To manage the relatively young farm	
woodland plantations in compartment 6	
so that they support locally appropriate	
species of deciduous trees with and	
uneven structure in age and form.	
To manage the compartments	
alongside the river Thames to ensure	
safe navigation of the river whilst	
maintaining a population of healthy	
pollards with associated ground flora.	
To monitor populations of pest species,	
principally deer and grey squirrels, and	
ensure that appropriate pest control is	
in place to such that planted trees,	
natural regeneration and coppice	
regeneration can all successfully	
establish and reach maturity.	

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:

The Earth Trust Farm is a 497ha mixed estate comprising arable land, permanent pasture and woodland. The farm lies mainly on the Sinodun Hills (a chalk outlier from the Chiltern Hills) overlooking the Thames Valley. At the heart of the estate is a prominent landscape feature (known locally as the 'Wittenham Clumps'). Part of the farm falls within the North Wessex Downs AONB. There is significant public access to the farm with the Wittenham Clumps, Little Wittenham Wood and Neptune Wood being the most heavily visited woodlands. In total, woodland makes up approximately 129.5ha of the Earth Trust Farm. The woodland compartments are shown within the context of the whole site in Map 1 and in more detail in Map 2. Further details on the compartments are given below with additonal informaiton shown in Maps 4 - 7.

Compartment 1: Little Wittenham Wood



Little Wittenham Wood is a mature W8 ash woodland of secondary origin and is approximately 300 years old (it was first noted on Rouque's map of Berkshire in 1761). Part is dominated by over-stood ash and sycamore coppice, with oak standards. All three species grow well on the site. The shrub layer is poorly developed, but includes a good diversity of species overall, including scattered hazel. The remainder comprises mature conifer plantations which were planted in the 1950-60s (including Norway spruce, larch, western red cedar and western hemlock). The conifer plantations were typically inter-planted with rows of oak. Throughout the plantations there are many mature trees, including oak and ash, which pre-date the planting.

Little Wittenham Wood was managed as coppice (ash) with standards (oak) until the early 20th Century when the woodland changed to favour game rearing/shooting (pheasant, duck, etc). At some point the two main woodland ponds were re-excavated to encourage waterfowl. These ponds (and other created more recently) are now the main breeding ponds for the population of Great Crested Newts which the site supports. It is this large Great Crested Newt population which is the primary reason for the site's designation as a Site of Special Scientific Interest (SSSI) & Special Area of Conservation (SAC).

In the 1950-60s large areas were replanted with conifers, but most oak standards were retained, and some areas of over-stood ash coppice have also survived. Until recently the coniferous plantations received minimal management, with little thinning. Since 1982 the Little Wittenham Wood has been managed primarily for wildlife conservation and public access. Removal of the conifers has been undertaken by the Trust since the 1990s and this work is ongoing. Over the last management plan period (2012-2017) thinning, predominantly of the conifers, as taken place in 11 of the sub-compartments as shown in map 3. Ride side coppicing has also taken place annualy with c shaped coppice scallops created along approxmiately 10% of the ride edge each year. Wetland features have also been created included Poplar Pools (1999), Poplar Pools extension (2012) and two new woodland ponds (2012). In summer 2016 the most southerly of the woodland ponds was drained down and the fish removed.

Compartment 2: Wittenham Clumps & Rookery

The two clumps of trees are of secondary origin, being planted as a hill-top landscape feature about 1720, making them the 'oldest known ornamental hill-top planting of native Beech in Britain' (Oliver Rackham). They are dominated by over-mature beech, which is of great cultural and wildlife value. In order to maintain the clumps as a landscape feature significant planting of beech took place on Castle Hill in the 1970s and on Round Hill in the 1980s. Furthermore, in 2007, gaps in the canopy were planted up with broad leaved lime, small leaved lime and hornbeam as these were considered to be more resistant to squirrel damage and likely to do better under a warmer, drier climate. The clump has also been extended outwards with the planting of a band of scrub encircling the main clump. In 2005 access into Castle Hill clump was closed due to concerns over the safety of a number of the mature beech trees. At the same time access was opened up into Round Hill clump which had been closed to the public since the mid 1980's.

The Rookery is a mature (but relatively recent) sycamore plantation. It has received little direct management other than tree safety works and the provision of public access.



Compartment 3: Paradise Wood

Paradise Wood is a national research woodland dedicated to the improvement of hardwood tree species for increased timber productivity. The woodland has been planted on former arable land over the last 25 years, beginning in 1993 and contains a number of planted research trials of ash, oak, beech, cherry and walnut. Research trials which are geometric in design are surrounded by mixed species shelterbelts and timber blocks to soften the hard edges. Paradise Wood is not accessible to the public except for guided tours.

Compartment 4: Neptune Wood

Neptune Wood is a predominantly oak woodland which was planted in 2006 to commemorate the bicentenary of the Battle of Trafalgar. Within the wood there is a research trial of English, French, Spanish and Dutch provenances of oak trees. Neptune Wood is accessible via permissive footpaths and is bordered to the south by Paradise Wood.

Compartment 5: Broad Arboretum

Broad Arboretum was planted in the 1990s as a demonstration arboretum which houses all of the tree species native to Oxfordshire. This woodland is freely accessible via a permissive footpath.

Compartment 6: North Farm

The North Farm woodlands mostly comprise small scattered recent plantings, used for game cover by the previous owner, of mixed coniferous/deciduous species. Individual stands tend to be of a uniform age class, although across the site they vary from recent plantings to small tracts of mature woodland (Felmore Copse and Lowerhill Farm Wood - a designated County Wildlife Site adjacent to the Thames). Compartment 6 also includes areas of wet woodland alongside the Thames which are dominated by willow pollards and a newly established wet woodland which was planted in winter 2014/15 as part of the River of Life project.



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 <u>Magic</u> website or the Forestry Commission <u>Land Information</u> <u>Search</u>.

Feature	Within Woodland(s)	Cpts	Adjacent to Woodland(s)	Map No
Biodiversity - Designations				
Site of Special Scientific Interest	Yes	1,2c	Yes/No	6
Special Area of Conservation	Yes	1,2c	Yes/No	6
Tree Preservation Order	No		No	
Conservation Area	No		Yes	6
Special Protection Area	No		No	
Ramsar Site	No		No	
National Nature Reserve	No		No	
Local Nature Reserve	No		No	
Other (please Specify): SM & LWS	Yes	2c	Yes	6
	grasslands) are of Great Crested Ne breeding amphib damselflies [Odo • Scheduled Morr within a Schedul • County Wildlife (compartment 6) due to the popul its invertebrate i • Area of Outstan eastern half the Wittenham Wood Wessex Downs A • Forestry Comm Material regulatio & 3-802 are regi FC FRM requirem	designation wians and plans and plans and plans and plans and doment (ed Monu ed Monu ed Monu ation of nterest. nding Na Farm (W d/North I NOB. nission – ons (FC I stered a nents.	ed SAC (for popula d SSSI (principally l breeding dragonf ecies]). SM): Castle Hill Cl ment (Iron Age hi VS): Lowerhill Farr ocal Wildlife Site (1 Loddon Lily it supp tural Beauty (AON (ittenham Clumps/ Farm) lies within the Forest Reproducti FRM): compartments sh seed orchards u	ation of for fies & ump lies II-fort). m Wood 59W08) ports and IB): The Little he North ve hts 3-301 under the

	Feature	Within Woodland(s)	Cpts	Map No	Notes
Biodi	Biodiversity - European Protected Species				
Bat	Species (if known)	Yes	1		The Earth Trust
	Common Pipistrelle				Farm, particularly



	Soprano Pi Brown Lon Daubenton Noctule Serotine	pistrelle g-eared Is'				Little Wittenham Wood (compartment 1), provides valuable roosting and foraging habitat for several bat species including Common and Soprano Pipistrelle, Brown Long-eared, Daubentons',
						Noctule and Serotine.
Dormo	ouse		No			
Great Crested Newt		Yes	1	5	A large meta- population occurs across the various ponds in Little Wittenham Wood (compartment 1) and adjacent parts of the estate.	
Otter		Yes	1, 6j, 6k, 6l & RoL wet woodla		Otters are active along the River Thames which abuts compartments 1, 61, 6k, 6l and 6n.	
Sand	Lizard		No			
Smoo	th Snake		No			
Natter	riack Toad		No			
Biodi	versity – P	riority Species				
<u>Sched</u> <u>Birds</u>	lule 1	Species:	Yes	1		 Schedule 1 birds: Goshawk is resident in Little Wittenham Wood and could be breeding. Red Kite and Barn owl are resident locally and have bred on the farm in recent years. BAP/Red List birds: Song Thrush and Marsh Tit breed in Little Wittenham Wood. Cuckoo has historically bred in



Mammals (Red Squirrel, Water Vole, Pine Marten etc)Yes Brown hare are present throughout the farmland areas of the site and may also use the woodland areas.Reptiles (grass snake, adder, common lizard etc)Yes6Grass snakes and common lizard are present on the site. 18 common lizards were introduced into compartment 6n in 2016 as part of a translocation programme.PlantsYes6j, 6k & 6lScattered populations of the the Red Data Book species Loddon lily occur alongside the Thames, including in compartments 6j, 6k & 6l.Fungi/LichensNoSoldier Flies (Diptera: Strationyidae): Tufa depositing springs in Little Wittenham Wood (compartment 1) provide habitat for a and vulnerable assemblage of soldier flies, including in compartantes 10, provide habitat for a and vulnerable assemblage of soldier flies, including in compartantes 10, provide habitat for a and vulnerable assemblage of soldier flies, including in compartantes in compartment 1) provide habitat for a and vulnerable assemblage of soldier flies, including the RDB Oxycer a analis and the Notable 0, pardalina. Tuberta maerens					Paradise Wood.
Reptiles (grass snake, adder, common lizard etc)Yes6 Crass snakes and common lizard are present on the site. 18 common lizards were introduced into compartment 6n in 2016 as part of a translocation programme.PlantsYes6j, 6k & 6l Scattered populations of the the Red Data Book species Loddon lily occur alongside the Thames, including in compartments 6j, 6k & 6l Scattered populations of the the Red Data Book species Loddon lily occur alongside the Thames, including in compartments 6j, 6k & 6l.Fungi/LichensNoInvertebrates (butterflies, moths, beetles etc)Yes1Yes1Strationyidae): Tufa depositing springs in Little Wittenham Wood (compartment 1) provide habitat for a nationally rare and vulnerable assemblage of soldier flies, including the RDB Oxycera analis and the Notable O. pardalina.	Mammals (Red Squi Vole, Pine Marten et	rrel, Water tc)	Yes		 Brown hare are present throughout the farmland areas of the site and may also use the woodland areas.
PlantsYes6j, 6k & 6l Scattered populations of the the Red Data Book species Loddon lily occur alongside the Thames, including in compartments 6j, 6k & 6l.Fungi/LichensNoInvertebrates (butterflies, moths, beetles etc)Yes1Invertebrates (butterflies, (Diptera: Strationyidae): Tufa depositing springs in Little Wittenham Wood (compartment 1) provide habitat for a nationally rare and vulnerable 	Reptiles (grass snak common lizard etc)	xe, adder,	Yes	6	 Grass snakes and common lizard are present on the site. 18 common lizards were introduced into compartment 6n in 2016 as part of a translocation programme.
Fungi/LichensNoInvertebrates (butterflies, moths, beetles etc)Yes1• Soldier Flies (Diptera: Stratiomyidae): Tufa depositing springs in Little Wittenham Wood (compartment 1) provide habitat for a nationally rare and vulnerable assemblage of soldier flies, including the RDB Oxycera analis and the Notable O. pardalina. • The Red Data Book spider Tuberta maerens	Plants		Yes	6j, 6k & 6l.	 Scattered populations of the the Red Data Book species Loddon lily occur alongside the Thames, including in compartments 6j, 6k & 6l.
Invertebrates (butterflies, moths, beetles etc)Yes1• Soldier Flies (Diptera: Stratiomyidae): Tufa depositing springs in Little Wittenham Wood (compartment 1) provide habitat for a nationally rare and vulnerable assemblage of soldier flies, including the RDB Oxycera analis and the Notable O. pardalina. • The Red Data Book spider Tuberta maerens	Fungi/Lichens		No		
nas been recorded on mature oak trees in Little Wittenham Wood (compartment 1).	Invertebrates (butte moths, beetles etc)	erflies,	Yes	1	 Soldier Flies (Diptera: Stratiomyidae): Tufa depositing springs in Little Wittenham Wood (compartment 1) provide habitat for a nationally rare and vulnerable assemblage of soldier flies, including the RDB Oxycera analis and the Notable O. pardalina. The Red Data Book spider Tuberta maerens has been recorded on mature oak trees in Little Wittenham Wood (compartment 1).



toad)				Wood (compartment 1) supports a population of common toads (Bufo bufo) and 171 common toads were introduced into the River of Life wet woodland (compartment 6n) in 2016 as part of a translocation programme.
Other (please Specify):	No			
Historic Environment	Vac	2-	C	Castle Hill is an
Scheduled Monuments	Yes	20	6	Iron Age Hill Fort designated as a Scheduled Monument.
Unscheduled Monuments	No			
Registered Parks and Gardens	No			
Boundaries and Veteran Trees	Yes			
Listed Buildings	No			
Other (please Specify):	No			
Landscape				
National Character Area (please S	pecify):	1	r	
National Park	No			
Area of Outstanding Natural Beauty	Yes	1,2 & 6	6	Compartments 1, 2 & 6 all fall within the North Wessex Downs AONB
Other (please Specify):	No			
People	T	1		
CROW Access	No			
Public Rights of Way (any)	Yes		7	There is a substantial network of public footpaths & bridleways across the site, including to and within many woodland compartments
Other Access Provision	Yes		7	There is a substantial network of permissive footpaths &



			bridleways across the site, including to and within many woodland compartments
Public Involvement	Yes	 	The Earth Trust runs a programme of public engagement activities throughout the year. For more information please see http://www.earthtr ust.org.uk/Explore. aspx
Visitor Information	Yes	 	There are notice boards with site information at the main access points to the site. Site leaflets are also available.
Public Recreation Facilities	Yes	 	The Earth Trust has recenrtly been granted planning permission to improve the visitor facilities at the Earth Trust Centre. For more information please see http://www.earthtr ust.org.uk/About- us/improvements/i mprovements.aspx
Provision of Learning Opportunities	Yes	 	The Earth Trust runs a programme of educational activites throughout the year. For more informaiton please see http://www.earthtr ust.org.uk/Learn.a



			spx
Anti-social Behaviour	Yes	 	Some anti-social behaviour occurs on site with the main areas effected being the Wittenham Clumps car park, areas within Little Wittenham Wood (compartment 1) and the Wittenham Clumps (compartment 2).
Other (please Specify):	No	 	
<u>Water</u>			
Watercourses	Yes	5	
Lakes	Yes	5	
Ponds	Yes	5	
Other (please Specify):	Yes	5	Backwater features were created as part of the River of Life project and come through compartments 6k, 6l and 6n.



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	4		
Planted Ancient Woodland Site	Yes	1	4		
(PAWS)					
Semi-natural features in PAWS	Yes	1	4		
Lowland beech and yew	No				
woodland					
Lowland mixed deciduous	Yes	3,4,5	4		
woodland		& 6			
Upland mixed ash woods	No				
Upland Oakwood	No				
Wet woodland	No				
Wood-pasture and parkland	No				
Other (please Specify):	No				
Non Woodland Habitat Types		r	r		
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	Yes				
Other (please Specify): Semi- improved grassland	Yes	1	4		



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,	Percentage of Mgt	Age Structure	Notes (i.e. understory or natural
Conifer, Coppice, Intimate Mix)	Plan Area	(even/uneven)	regeneration present)
Intimate Mix	38%	Uneven Aged	Compartment 1: Little Wittenham Wood
Native Broadleaves	2%	Even Aged	Compartment 2: Wittenham Clumps & Rookery
Intimate Mix	35%	Even Aged	Compartment 3: Paradise Wood
Native Broadleaves	5%	Even Aged	Compartment 4: Neptune Wood
Intimate Mix	20%	Even Aged	Compartment 5: Broad Arboretum & Compartment 6: North Farm

Uneven-aged woodland - many wildlife habitats because of high diversity



Even-aged woodland - tidy but of low diversity



containing both living and dead branches

trees

of shrubs and small trees



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.

	High	Plan for Action	Action	Action
Impact	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, <i>Phytophthora,</i> Needle Blight etc)	Ash Dieback
Likelihood of presence (high/medium/low)	High
Impact (high/medium/low)	High
Response (inc protection measures)	Continue to carry out the annual tree safety surveys and associated remedial works.
	Our woodland, particularly Little Wittenham Wood, contain signififcant populaitons of ash trees. There is therefore the potential that a small proportion of these trees will show some level of resistance to Ash Dieback. Changing our management approach to favour the removal of ash could inadvertantly remove those trees genetically predisposed to some level of resistance. Therefore our woodland operations e.g. thinnings, will continue on the same basis as in previous years. At the same time the spread and impact of the disease will be monitored.

Acute Oak Decline

Threat (e.g. Ash Dieback,



Phytophthora, Needle Blight etc)	
Likelihood of presence	High
(high/medium/low)	
Impact (high/medium/low)	Medium
Response (inc protection measures)	Our woodlands will be periodically monitored for the presence of AOD. The response to any such outbreaks would be determined on a case by case basis depending on a range of factors including the scale of the impact, efficacy of any control measures, chances of re-infection etc.

Threat (e.g. Ash Dieback, <i>Phytophthora,</i> Needle Blight etc)	Phytophthora
Likelihood of presence (high/medium/low)	Medium
Impact (high/medium/low)	Medium
Response (inc protection measures)	No confirmed cases currently but our woodlands will be periodically monitored for the presence of various pests and diseases. The reponse to any such outbreaks would be determined on a case by case basis depending on a range of factors.

5 2	Deer
$\mathcal{J}_{\mathcal{I}}\mathcal{J}_{\mathcal{I}}$	DECI

Species - Likelihood of presence	Muntjac – Present
(high/medium/low)	Roe – Present
	Fallow – Medium
	Red, Sika, CWD – Low
Impact (high/medium/low)	High
Response (inc protection measures)	Culling is carried out by local deer stalkers. The three year average for the entire Earth Trust Farm (497ha including non-woodland areas) is 26 deer per year. These are a mix of roe and muntjac deer. Deer control will continue throughout this management plan period and new volunteer deer stalkers will be recruited should additional culling be required.
	Where staff resoruces allow, an annual deer impact assessment as set out by the Deer
	Initiative will be carried out to assess damage
	and set the appropriate level of culling. Culling



will then be increased or decreased
accordingly.

5.4 Grey Squirrels

Likelihood of presence	High
(high/medium/low)	
Impact (high/medium/low)	Medium
Response (inc protection measures)	Culling is carried out in Compartments 1, 2, 3
	and 5. Impacts will be monitored via an
	Impact Assessment annually.

5.5 Livestock and Other Mammals

Threat (Sheep, Horse, Rabbit etc)	Pigs
Likelihood of presence	High
(high/medium/low)	
Impact (high/medium/low)	Medium
Response (inc protection measures)	Pigs graze on rotation in compartments 6a, 6b, 6c, 6f, 6g, 6h and 6i. The grazing only takes place in the summer months and at low sotcking density. The impact on the trees and ground flora will be carefully monitored to ensure the grazing isn't having an advserse impact on the woodland. Pigs will be removed from areas where any adverse impacts are observed.

Threat (Sheep, Horse, Rabbit etc)	Sheep and Cattle
Likelihood of presence	Low
(high/medium/low)	
Impact (high/medium/low)	Low
Response (inc protection measures)	Monitor fences where grassland areas border woodlands to ensure the fences are functional and livestock excluded from the woodlands.

5.6 Water & Soil	
Threat (Soil Erosion, Acidification of Water, Pollution incidents etc)	Diffuse Pollution
Likelihood of presence (high/medium/low)	High



Impact (high/medium/low)	Medium
Response (inc protection measures)	The catchment of some of the woodlands includes fields used for arable produciton (including both fields owned by the Earth Trust and by our neighbours). The prevelance of -nitrophilic plant species, such as nettles, would suggest that the nutrient status in these woodland blocks is artifically high as a result of run off from adjacent arable fields. We will consider options for reducing nutrient run off into woodland blocks e.g. through the use of grass buffer strips and, where approprtiate, discuss such options with neighbouring farmers.

Threat (Soil Erosion, Acidification of	Direct Pollution
Water, Pollution incidents etc)	
Likelihood of presence	Low
(high/medium/low)	
Impact (high/medium/low)	Medium
Response (inc protection measures)	Ensure staff, volunteers and contractors are minimising direct pollution by using
	appropriate fuel containers, bunded fuelling
	points and well maintained machinery.

5.7 Environmental

Threat (Pollution, Fire, Flood, Wind,	Flood
Invasive Species, etc)	
Likelihood of presence	Medium
(high/medium/low)	
Impact (high/medium/low)	Low
Response (inc protection measures)	The wet woodland in compartment 6n is liable
	to flood annually but should have a minimal
	impact.

Threat (Pollution, Fire, Flood, Wind,	High Winds
Invasive Species, etc)	
Likelihood of presence	Medium
(high/medium/low)	
Impact (high/medium/low)	Low
Response (inc protection measures)	The exposed nature of some our woodlands
	(Cpt 2b,2c) makes them susceptible to high
	winds. We will minimise removal of marginal



trees to maintain a wind resistant shelter belt.

5.8 Social		
Threat (Rights of Way, CROW, permissive access, events sporting rights, Anti-social Behaviour etc)	Anti-social behaviour (littering, fires set etc.)	
Likelihood of presence (high/medium/low)	Medium	
Impact (high/medium/low)	Low	
Response (inc protection measures)	With the high number of visitors we receive some anti-social behaviour is unavoidable (some littering for example). We will monitor the impact and take further action if required. This may involve contacting the police for advice.	
		1
Threat (Rights of Way, CROW	Public rights of way	l

Threat (Rights of Way, CROW,	Public rights of way.
permissive access, events sporting	
rights etc)	
Likelihood of presence	High
(high/medium/low)	
Impact (high/medium/low)	Medium
Response (inc protection measures)	All woodland operations need to take public access into consideration, particularly when alongside public rights of way. Thinning operations will be cordoned off and signposted to inform members of the public. Banksmen will be utilised when working adjacent to public footpaths/bridleways.

5.9 Economic	
Threat (Timber forecasting, markets,	Increased local housing developments leading
products, operational costs etc)	to increased visitor numbers.
Likelihood of presence	High
(high/medium/low)	
Impact (high/medium/low)	High
Response (inc protection measures)	The Earth Trust site, currently receives approximately 150,000 visits per year. New housing developments in the local area will almost certainly increase the number of visitors further. This will increase the visitor



pressure particularly on the Wittenham Clumps and Little Wittenham Wood.
 Managing this increased levels of visitation is likely to require: Improving access facilities including signage to encourage visitors to stay on way marked paths; Excluding access to sensitive parts of the woodlands; New methods of pest control; Habitat creation & maintanence to ensure that the woodland biodiversity isn't negatively impacted.

Threat (Timber forecasting, markets,	
products, operational costs etc)	
Likelihood of presence	
(high/medium/low)	
Impact (high/medium/low)	
Response (inc protection measures)	

5.10 Climate Change Resilience

Threat (Uniform Structure, Provenance, Lack of Diversity etc)	Provenance.
Likelihood of presence (high/medium/low)	High
Impact (high/medium/low)	Medium
Response (inc protection measures)	Given the predicted impact of significant climate change on the UK's tree species, we will endeavour to source trees for future plantings from more southerly provenances where local adaptation will suit a warmer climate.

Threat (Uniform Structure,	Lack of species diversity.
Provenance, Lack of Diversity etc)	
Likelihood of presence	High
(high/medium/low)	
Impact (high/medium/low)	Medium
Response (inc protection measures)	To ensure the woodlands are more resilient to
	threats such as climate change and disease



we will -diversify the woodland composition
with the addition of appropriate species
through our programme of restocking post
thinning. We will consult with the local FC
Woodland Officer on suitable species to plant.

Threat (Uniform Structure,	Uniform Structure
Provenance, Lack of Diversity etc)	
Likelihood of presence	High
(high/medium/low)	
Impact (high/medium/low)	High
Response (inc protection measures)	Some areas in Cpt 1 and most of Cpt6 are of a uniform height and lack structure. We are addressing this through our programme of thinning operations, scalloping and understory planting/protection of natural regeneration.

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 the breeding and terrestrial habitats (particularly in compartment 1) in optimal condition for amphibians and dragonflies/damselflies (both listed under the SSSI designation).	Open woodlands with a diverse understorey and shrub layer are likely to provide greater opportunities for foraging while dense plantations with no understorey, are less suitable. We will therefore carry out understory planting throughout Little Wittenham Wood following thinning operations. This will be of appropriate native species such as hazel, hawthorn, splindle, guelder rose and wayfarer. We will also plant future standards (Oak, Aspen, Alder, Crab Apple and Wild Cherry) where we have opened gaps in the canopy. This will require funding which we will attempt to source.
	Compartment 1-2b (which lies directly to the west of the main breeding ponds in Little Wittenham Wood) will continue it be managed through non intervention, providing a large undistrubed area for use for foraging and overwintering.
	 When felling operations take place we will: leave a minimum of 10% of the timber as dead wood to provide suitable resting places and hibernation sites. not leave timber stacks on the ground. Instead the timber will either be left in lengths or stacked on bearers and collected in the following summer when ground conditions allow. extract all timber with a forwarder rather than a skidder to minimise damage and disturbance.
	A programme of annual mowing will take place on Rides 1 (The Bridleway), 2 (Broad Ride), Finger Meadow (at the Western end of compartment 1-3d) and the access track through compartment 1-2a (The Coppice



	Coup).
	All mowing will take place mid July - Sept when ground conditions are suitable. A tractor and topper/cutter collector will be used and arisings will be removed and piled on the wood edge. This is to reduce the fertility of the soil and inihibit the spread of the common, more vigorous species such as nettles.
	In order to minimise impacts on amphibians, particularly GCN a 5m buffer zone around ponds will be left uncut to ensure there is dense cover throughout the year. As we have large area (Cpt. 1-2b) of non-intervention woodland and (Cpt. 1-2e) of coppice adjacent to the Little Wittenham Wood pond complex we believe this mowing will have a minimal impact on the GCN population. Both of these areas are rich in deadwood, log piles etc. which will provide over-wintering habitat.
To maintain compartment 1 in favourable condition, such that it supports locally appropriate broadleaved species (such as Oak, Hazel, Field Maple, Silver Birch, Willow etc) with varied age structure and a healthy understory.	Compartment 1 will be managed under a continuous cover system with three different silvicultural systems: 1. Rotational thinning - Continuous cover. Each winter thinning work will be carried out on a rotational basis around all of the sub- compartments within compartment 1 (with the excpetions being those descibed below). Broadleaved species will be favoured in order to gradually change the structure of compartment 1 towards one which is a predominantly deciduous woodland. Based on an annual growth of approximately $6m^3/ha/yr$ across compartment 1 (c. 50ha) then thinning will be carried out at approximately 80% of the annual growth which equates to c. 250 cubic metres per year.
	N.B. Whilst all thinning works will take place during the winter, all timber extraction will take place in the summer months when ground conditions are such that the works will have minimal impact.
	2. Coppice with standards Compartments 1-2a & 1-2e will be managed as hazel coppice with standards, on a c.7 year rotation to generate hazel stakes & binders for



neage laying and bean poles for sale.
with additional layering to increase the density
of coppice stools.
Compartment 1-2a will be managed by a local
hedge layer and overseen by the Earth Trust.
3. Minimal-intervention
minimal-intervention. The compartment has
received this management for approximately
35 years and provides excellent habitat for
overwintering Great Crested Newts which
breed in the ponds to the east of the
compartment. There will be some coppicing
along the edge of compartment 1-20 where it
sufficient light levels into the ponds.
In addition to the above the following works
will take place thoughout the compartment:
The surface has desceled as the fill of the has been been as
• In order to develop a 'soft' edge to the Wood,
of compartment 1, 50 x 15m scallops will be
cut into the woodland edge and restocked with
scrub spp (Hazel, Hawthorn, Spindle, Guelder
Rose) through planting and natural
regeneration. We will cut one scallop a year in
compartments 1-4t, 1-4b and 1-3e over a 15
site conditions allow Brash will be stacked
into a dead hedge around the scallop.
• In order to create a more uneven strucutre
appropriate gaps in the canopy will be
identified following thinning works and planting
or appropriate standards will take place.
 Natural regeneration will also be promoted
through active control of deer throughout the
woodlands. New volunteer deer stalkers will be
recruited should additional culling be required.
It is proposed to remove the existing deer
rences from around compartments 1-3c and 1-
та.
• To create a better scrub laver though
compartment 1 understory planting will be



	carried out where funding allows. This will be of appropriate native species such as hazel, holly, hawthorn, splindle, guelder rose and wayfarer. In order to protect the new plantings, the temporary deer fence around compartment 1-4 a will be taken down and used to create smaller enclosures around the new understory planting.
To maintain public access across all compartments where it currently exists and review the need for additional access.	The current network of public and permissive access routes, as shown on map 7 - Public Access, will be retained and maintained. This will involve regular mowing throughout the growing season and may necessitate re- surfacing works. An independent and suitably qualified tree safety inspector will carry out an annual tree safety survey in accordance with our tree sfatey policy. Any recommended remedial works will then be carried out.
To maximise potential for wildlife along rides through developing wider rides with scrub margins through cyclical ride side coppicing and ride mowing.	Each winter approximately 20% of rides 1-5 shown on Map 8 will be coppiced. This will be carried out by creating a series of C shapded scallops. Restocking of scallops will primarily be through natural regeneration. Where this is not sufficient or lacks diversity we will plant suitable species e.g. Hazel, Hawthorn, Wayfarer, Spindle, Guelder rose etc. should funding allow. Rideside trees and scrub will be managed on a rotation as follows: Ride 1 (Bridleway - 870m) will be divided into sixteen 50m sections on each side of the ride with a 35m buffer zone left at either end. Each year we will cut 2-3 50x20m scallops resulting in a 6 year rotation. The buffer zone at either end prevents the ride from becoming a wind- tunnel, maintaining a shelter belt of wind resistant trees around the edge of the woodland. Ride 2 (Broad Ride - 440m) will be divided into eight 50m sections on either side of the ride



	with a 20m buffer zone left at either end. Each year we will cut 2-3 50x20m scallops resulting in a 6 year rotation.
	Ride 3 (Steps Ride – 200m) will be divided into four 50m sections on either side of the ride. Each year we will cut 1-2 50x20m scallops resulting in a 6 year rotation.
	Ride 4 (222 Ride – 250m) will be divided into five 50m sections on either side of the ride. Every other year we will cut 1 50x20m scallop resulting in a 20 year rotation.
	Ride 5 (Star Ride – 200m) will be divided into four 50m sections on either side of the ride. Every other year we will cut 1 50x20m scallop resulting in a 16 year rotation.
	Rides 6 & 7 (Extraction Road) will be managed for tree safety only.
To provide sufficient timber for the Earth Trust heating system (c. 200 cubic meters per year) and a new Earth Trust firewood business (c. 200 cubic meters per year).	Thinning operations as descibed in the Plan of Operations should provide the required volumes. If this is not be the case then a greater proportion of timber could be bought in for the firewood business.
To maintain compartments 2b and 2c as prominent landscape features by employing a continuous cover system.	Thin out the squirrel damaged trees (predominantly beech & cherry) and plant into any gaps created with hornbeam & lime. NB. Any planting on Castle Hill will require Scheduled Monument Consent as the site is a SM.
	Maintain recently planted lime and hornbeams to ensure they reach maturity.
	Coppice the scrub around the outer edge of the compartments on rotation. This should help minimise the risk of wind damage.
	Carry out squirrel control to limit future damage.
To maintain compartment 3 (Paradise Wood) as a national research woodland and disseminate the results of any research to our various audiences.	All research compartments will be managed in accordance with the research strategy. Any felling work in research compartments will be preceded by an application for a felling license.
	All non-research compartments will be managed on a continuous cover system with annual rotational thinning at 10-20% and high



	 pruning to promote high quality timber. The one exception to this is a small block of Christmas trees which will be thinned out at a rate guided by the demand for the trees until all of the trees are removed. The compartment will then revert to grassland. Several compartments within Paradise Wood are designed as seed orchards. 3-301 is a tested seed orchard for ash. Compartment 3-802 is a clonal ash seed orchard, provenance region 403, and is qualified under FRM. These will be maintained and monitored closely with regards the impact of ash dieback.
To maintain the compartment 5 (Broad Arboretum) as a demonstration of tree and shrub species native to Oxfordshire.	Carry out silvicultural thinning to ensure the best examples of each tree species are retained. Consider planting additional species in order to demonstrate novel species or those considered to be important tree species for the future.
To continue the pigs in woodland project in compartment 6 and to monitor progress to ensure that the tenant is able to maintain a viable business, the trees are not subject to undue damage and the ground flora is able to recover post grazing.	Continue to let grazing rights to Coopers Oxford Pork to allow them to keep a small number of rare breed Oxford Sandy & Black pigs in compartments 6a, 6b, 6c, 6f, 6g, 6h and 6i.
To manage the relatively young farm woodland plantations in compartment 6 such that they support locally appropriate species typical of deciduous woodland with	With the exception of compartment 6e (see below) compartment 6 will be managed under a continuous cover system with rotational thinning carried out in sub comparmtents 6a, 6b, 6c, 6d, 6f, 6g, 6h, 6i & 6m.
form.	Compartments 6a, 6b, 6c, 6d, 6g, 6h and 6i are recently planted "farm woodlands". They are densely planted with a mix of native broadleaves, coniferous species (Norway spruce and larch in particular) and evergreens such as laurel for game cover. Thinning will favour the broadleaved species.
	In addition to the above, a new area of woodland pasture will be created in compartment 6g. This compartment was planted in the early 1990's and the western half of the compartment has open areas which support high quality chalk grassland



	communities. Directly to the south of the compartment is a steep sided bank known as Bushey bank. Bushey bank is a chalk grassland block of approximately 2ha managed through a combination of topping and grazing. The grassland communities within compartment 6g would benefit greatly from grazing to check the growth of competitive grasses allowing wildflowers to thrive. Hence if funding were available it would be desirable to fence around compartment 6g and link it to Bushey bank. The two areas would then be managed as one with sheep & cattle grazing throughout. This would require approximately 350m of fencing and some thinning works.
	Compartment 6e is a small Christmas tree block. This will be thinned out at a rate guided by the demand for the trees until all of the trees are removed. The compartment will then revert to grassland.
	Compartment 6n is a new riverside woodland planted in winter 2014/15. It is not envisaged that any significant works will be required within this management plan period.
To manage the compartments alongside the River Thames to ensure safe navigation of the river whilst maintaining a population of healthy pollards with associated ground flora.	An independent and suitably qualified tree safety inspector will carry out an annual tree safety survey in accordance with our tree sfatey policy. Any recommended remedial works will then be carried out.
	Pollard the mature willows in compartments 6j, 6k, 6l, 1-3a & 1-3f on rotation and, where approporiate, establish new pollards through cutting at the appropriate height.
To monitor populations of pest species, principally deer and grey squirrels, and ensure that appropriate pest control is in place	Impact monitoring and pest control will be conducted in line with our Pest Management Plan.
to such that planted trees, natural regeneration and coppice regeneration can all successfully establish and reach maturity.	High seats and deer lawns will be utilised to allow safe and effective deer management in areas with public access. Two deer lawns currently exist within Little Wittenham wood and consideration will be given to the need for more as annual deer impact surveys are completed.





Section 7: Stakeholder Engagement

There can be a requirement on both the FC and the owner to undertake consultation/engagement. Please refer to <u>Operations</u> <u>Note 35</u> 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
Management of Little Wittenham Wood SSSI/SAC	Alison Muldal – Natural England	14/03/2019	15/04/2019		
Management of Wittenham Clumps SM	David Wilkinson – English Heritage	18/04/2019			
Management of Lowerhill Farm Wood LWS	Pim Young – Berks, Bucks & Oxon Wildlife Trust	14/03/2019			
	North Wessex Downs AONB	14/03/2019			
	Paul Orsi - Sylva Foundation	14/03/2019			
	Graham – Little Wittenham Parish meeting	14/03/2019			
	Lucy Dally – Brightwell Parish council	14/03/2019			
	Rhonda - Long Wittenham Parish	14/03/2019			





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
Error! Reference source not found.	The number of Great Crested Newts found in the main woodland ponds using standardised and consistent methods.	Bottle trapping / netting	As funding allows. Bottle trapping: April – June Netting: June – September	Chris Parker	Data used to determine the status of the Great Crested Newt population and therefore whether additonal management action is required e.g. new ponds created.
Error! Reference source not found.	Species composition and age class structure of the woodland.	Survey of the species composition carried out once every 5 years, in line with management planning periods	Every 5 years	Chris Parker	Species composition data will be used to inform 5 year management plans.
Error! Reference source not found.	Footpaths in good condition and passable.	Walk through woodland	Ad hoc – carried out in conjunction with other woodland management	Chris Parker	Information will inform which footpaths require repair works.



			activities		
Error! Reference source not found.	 Good structural diversity to the rides Good populations of woodland butterflies using the ride side habitats. 	 Walk through woodland Butterfly survey 	 Ad hoc – carried out in conjunction with other woodland management activities Annual survey 	Chris Parker	Information will inform where further ride side coppicing is required.
Error! Reference source not found.	Timber extracted from the woods matches timber requirements for the heating system.	Assessment of timber extracted vs. timber burnt.	Annual	Chris Parker	Information will inform whether or not rate of thinning is sufficient or needs to be increased.
To maintain compartments 2b and 2c as prominent landscape features by employing a continuous cover system.	Compartments 2b and 2c have sufficient mature trees to ensure their prominence in the landscape is not diminished.	Establish fixed point photography of the Wittenham Clumps from a suitable vantage point.	Annual	Chris Parker	Information will inform how the structure of compartments 2b and 2c is changing.
To maintain compartment 3 (Paradise Wood) as a national research woodland and disseminate the results of any research to our various audiences.	The research plots are maintained in good condition	Annual walk through. Periodic measuremen ts in accordance with the research	Annual	Chris Parker	



		plan.			
To maintain the compartment 5 (Broad Arboretum) as a demonstration of tree and shrub species native to Oxfordshire.	All appropriate tree species are present and have healthy populations which are representative of the species.	Walk through woodland	Ad hoc – carried out in conjunction with other woodland management activities	Chris Parker	Information will inform future management e.g. need to thin or beat up a particular species plot
To continue the pigs in woodland project in compartment 6 and to monitor progress to ensure that the tenant is able to maintain a viable business, the trees are not subject to undue damage and the ground flora is able to recover post grazing.	 Coopers Oxford Pork are able to run a financially viable business; There is little or no damage to the trees in the grazed woodlands 	1.Discussion with Coopers Oxford Pork regarding progress of the business; 2. Walk through woodland	 Annual Ad hoc – carried out in conjunction with other woodland management activities 	Chris Parker	Informaiton will inform future management decisiosn e.g. whether grazing periods or density need to be adjusted to ensure little to no damage to the trees.
To manage the relatively young farm woodland plantations in compartment 6 such that they support locally appropriate species typical of deciduous woodland with an uneven structure in age and form.	Species composition and age class structure of the woodland.	Survey of the species composition carried out once every 5 years, in line with management planning periods	Every five years	Chris Parker	Species composition data will be used to inform 5 year management plans.
To manage the compartments alongside the River Thames to ensure safe navigation of	1. Safe navigation maintained at all times.	1. The Environment Agency carry out periodic	Annual	Chris Parker	Information will inform future management e.g. need to carry out additonal pollarding work.



the river whilst maintaining a population of healthy pollards with associated ground flora.	2. The population of willow pollards comprises a range of pollards at differnet stages of the coppicing cycle.	surveys and contact landowners if any issues arise. 2. Woodland walk through			
To monitor populations of pest species, principally deer and grey squirrels, and ensure that appropriate pest control is in place to such that planted trees, natural regeneration and coppice regeneration can all successfully establish and reach maturity.	 Diverse structure of scrub and tree species. Coppice stools reaching desired height. Minimal damage from squirrel browsing. 	1. Impact assessment survey using the Deer Initiative methodology undertaken each Spring.	The farm will be surveyed on a rotation due to time limitations. Year 1 – Comp 1 Year 2 – Comp 2, 3, 4 & 5. Year 3 – Comp 6.	Chris Parker	Results will inform future cull figures; reduction or maintenance cull.



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	
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	
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. Felling and restocking to improve	 Survey information (<i>Sect. 4</i>) identifies any designations that impact on woodland management. Management intentions (<i>Sect. 6</i>) have taken account of any designations. Felling and restocking proposals are consistent 	Yes	
forest structure and diversity: When planning felling and restocking, the design of existing forests should be re-	with UKFS design principles (for example scale and adjacency).Current diversity (structure, species, age	Yes	

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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 (<i>Sect. 4</i>). 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 <i>Sect. 7</i>. 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	
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	

Approved in Principle	Name (WO or FM):	Date:
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.	Sam Riley	18/04/2019
b) You do not yet have a licence to undertake any tree felling in the plan.		
Approved	Name (AO, WO or FM):	Date:
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).	Sam Riley	17/06/2019