Forestry Commission England

Woodland Management Plan

To be completed by the plan author:		
Woodland or Property name	**Radley Large Wood**	
Woodland Management Plan case reference	**1646**	
The landowner agrees this plan as a statement of intent for the woodland		**Yes**
Plan author name	**Jack Lawson**	

For FC Use only:				
Plan Period *(dd/mm/yyyy - Ten years)*	**Approval Date:**	**13/02/2024**	**Approved until:**	**13/02/2034**
Five Year Review Date	**February 2029**			

Revision No.	Date	Status (draft/final)	Reason for Revision
1	02.08.2023	Draft	Implementation of new Woodland Management Plan
2	20.08.2023	Edits	Client and Public consultation
3	03.09.2023	Edits	Addition of coppicing and regeneration fell areas

Standard Practices and Guidance

Underpinning the management proposals in Woodland Management Plans is a suite of standard practices and guidance described briefly below. Some of these practices are strategic national policy, whilst others are local expressions of national policy to reflect the conditions found in the Midlands and South - the policy level is indicated in brackets.

The UK Forestry Standard* (national)
The UKFS sets out standards for the sustainable management of all forests and woodlands in the UK and describes, in outline, good forest practice.

The UK Woodland Assurance Standard* (national)
The UKWAS certification standard sets out the requirements which woodland owners, managers and forest certification bodies can use to certify their woodland and forests as sustainably managed. It is the document which guides all our management, and against which landowners and agents can be assessed by outside consultants to ensure compliance.

European Protected Species (national)
In August 2007 amendments to the European Habitat Directive came into force in England and Wales to protect the habitat of a number of vulnerable species. Those European Protected Species (EPS) most likely to be found in a woodland habitat include all species of bat, hazel dormouse, great crested newt, otter, sand lizard and smooth snake.

Natural Environment and Rural Communities Act 2006 (national)
The NERC Act came into force in October 2006 and was designed to help achieve a rich and diverse natural environment alongside thriving rural communities. The UK Biodiversity Action Plan was used to help draw up a list of habitats and species which are of principal importance for the conservation of biodiversity in England as required under section 41 of the NERC act.

Ancient and native woodland in England (national)
Ancient and native woodlands are one of the oldest land uses and most diverse ecosystems. They have often taken hundreds, if not thousands of years to develop, and in the case of ancient woodland are irreplaceable. The managing ancient and native woodland practice guide (2010) promotes greater flexibility, encouraging new innovative approaches to woodland management that enhance biodiversity and heritage. It replaces the 1985 broadleaves policy.

Site of Special Scientific Interest (national)
The SSSI series has developed since 1949 as the suite of sites providing statutory protection for the best examples of the UK's flora, fauna, or geological or physiographical features. Sites are selected as being the best regional examples of habitats, such as broadleaf woodland and/or plant and animal communities, and/or

important populations of rare species. These sites are also used to underpin other national and international nature conservation designations.

Information about individual SSSIs can be found on the Natural England website: https://designatedsites.naturalengland.org.uk/

Deadwood (national and local)

Deadwood is important in the forest as a habitat for birds, invertebrates and some primitive plants. Guidance is given on how to improve deadwood in woodlands of different sorts and sizes and how this will be distributed.

Natural reserves (national and local)

Natural reserves are areas of the forest where little or no active management takes place thereby creating a very different and special habitat in our otherwise actively managed forests.

Other Designations

Landholdings can have a wide array of designations placed on them, with varied levels of detail and application i.e. promoting a general landscape characteristic to protections orders on individual plants.

- National Park
- Area of Outstanding Natural Beauty (AONB)
- Special Protection Area* (SPA)
- Special Area of Conservation (SAC)
- Scheduled Monuments (SM's)
- County Wildlife Sites*

Along with the standard guidance documents, it is the responsibility of the Landowner and Agent to maintain and enhance protected features - integrating them into Woodland Management Plans where appropriate.

In addition, the Forestry Commission has a number of practice guides and specialist bulletins which further inform our management, some of these are available to download from our website https://www.forestry.gov.uk/england-policypractic

Government Priorities

The Government forestry policy is set out in Defra's and Forestry Commission England's Forestry and Woodland policy statement. This policy was published in 2013 during the Conservative and Liberal Democrat coalition government.

More recently, a 25-year Environment Plan was published in January 2018 to set out the governments approach to maintaining and enhancing the natural environment, within a generation. The plan is broad in scope but covers cleaner air and water, public forests and woodland, marine protected areas, species protection, administrative and governance issues.

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

Forestry Commission England

Section 1: Property Details

Woodland Property Name		Radley Large Wood	
Name	St Hilda's College, Oxford	**Owner**	
Email	chris.wood@st-hildas.ox.ac.uk	**Contact Number**	
Agent Name		Jack Lawson - Nicholsons	
Email	jack.lawson@nicholsonsgb.com	**Contact Number**	01869 340 342
County	Oxfordshire	**Local Authority**	Oxfordshire County Council
Grid Reference	SP 518 007	**Single Business Identifier**	
What is the total area of this woodland management plan? (In hectares)		22.4	
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 Licences	Yes
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

2.1 Vision

St Hilda's College are seeking to manage Radley Large Wood with a view of keeping it as woodland in perpetuity. As a site of existing ancient semi-natural woodland this vision will focus on protecting and enhancing the existing area of Ancient Semi-Natural Woodland (ASNW). The management plan brief extends this duty of care to priority habitats and priority species found within the woods, alongside historic features highlighted as having cultural value.

To ensure the woodland is resilient to both climatic and biological challenges a programme of diversification will be enacted to develop:

(1) Broader age and canopy structures – replacing relatively homogenous conditions.

(2) Open space as an ecological and community asset – creating a pleasant natural environemnt for the public to responsibly enjoy outdoor recreation in.

(3) Active management to increase biodiversity and dead wood-dependent organisms

(4) Self-supporting economic management through coppicing, targeted silvicultural intervention and restocking programmes.

This vision for Radley Large Wood will bring about the removal of plastics from the environment and increase the complexity of the woodland, introducing a wider selection of native tree, shrub and habitat types. This in turn will improve the abiotic and biotic functions of the woods and meet the detailed objectives set out within the management plan.

It is envisioned that a scientifically-based approach to the woodland's management will be adopted and sustainable working practices implemented (such as, the avoidance of fossil fuels to be used for energy sources, avoidance of herbicides).

2.2 Management Objectives

No.	Objectives (include environmental, economic and social considerations)
1	Maintain and enhance the woodland as an environmentally sustainable resource: (1) protect the historic character and charm of the wood (2) improve existing growing stock; (3) increase age structure and/or diameter distribution; and (4) enhance woodland carbon cycles.
2	Maintain existing and increase potential woodland functions to enhance the biological diversity within the woodland ecosystem: (1) diversify tree species; (2) recruit natural regeneration; (3) increase deadwood habitat; (4) protect threatened woodland species; (5) enhance soil and water functions.
3	Undertake a considered approach to Ash Dieback within the woodland (taking into account Ash Dieback-resistant trees and Ash-dependent species) without compromising objectives 1 and 2. Regular Tree Health surveys undertaken to contribute to public safety.
4	Observe environmental pressures on new planting, natural regeneration and coppice regrowth and take appropriate action to mitigate damage and/or losses. This includes monitoring climatic impacts, as well as managing the presence of Deer and Squirrel.
5	Ensure the woodland is economically self-supporting by way of realising modest returns from coppicing and silviculture without compromising objectives 1 and 2. A planned thinning and felling programme for the good health of the woodland will require improvements to existing drives and stacking areas.
6	Maintain public rights of way, by removing obstructing trees and widening rides to clearly identify the permissive routes open to the public. The existing wood bank is a notable historic feature running parallel to the Public Right of Way (PRoW) and its condition should be preserved.

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
Maintain and enhance the woodland as an environmentally sustainable resource: (1) protect the historic character and charm of the wood (2) improve existing growing stock; (3) increase age structure and/or diameter distribution; and (4) enhance woodland carbon cycles.	
Maintain existing and increase potential woodland functions to enhance the biological diversity within the woodland ecosystem: (1) diversify tree species; (2) recruit natural regeneration; (3) increase deadwood habitat; (4) protect threatened woodland species; (5) enhance soil and water functions.	
Undertake a considered approach to Ash Dieback within the woodland (taking into account Ash Dieback-resistant trees and Ash-dependent species) without compromising objectives 1 and 2. Regular Tree Health surveys undertaken to ensure public safety.	
Observe environmental pressures on new planting, natural regeneration and coppice regrowth and take appropriate action to mitigate damage and/or losses. This includes monitoring climatic impacts, as well as managing the presence of Deer and Squirrel.	
Ensure the woodland is economically self-supporting by way of realising modest returns from coppicing and silviculture without compromising objectives 1 and 2. A planned thinning and felling programme for the good health of the woodland will require improvements to existing drives and stacking areas.	
Maintain public rights of way by removing obstructing trees and widening rides to clearly identify the permissive routes open to the public. The existing wood bank is a notable historic feature running parallel to the Public Right of Way (PRoW), and its condition should be preserved.	

Section 4: Woodland Survey

4.1 Description

Site Characteristics:

Radley Large Wood is an outlier of the larger Bagley Wood, extending local woodland cover into a more urban and arable setting – offering a good degree of connectivity for local wildlife it is an important landscape feature.

The woodland is classified as Ancient and Semi-Natural Woodland (ASNW) and supports a canopy dominated by Oak and Ash. A variety of understorey species provide a secondary canopy, although much of this is over-grown, in poor health and/or form and is susceptible to environmental change i.e. increases/decreases in light and water conditions, susceptible to damage from wind etc.

Topographically the site lies flat with a slight downward slope towards the north end of the wood, altitude ranges from 70-80 metres above sea level. The woodland itself is surrounded by either urban development or agricultural fields but does sit close to the A34 dual carriageway. Rainfall is low at approximately 660mm per annum, with severe frosts and droughts occurring regularly.

Management History:

The woodland has been historically managed as a Hazel coppice with Oak/Ash standards. This management was abandoned in the early 1900s, allowing the trees to grow into high forest. This has created a predominantly single-aged, semi-mature woodland.

The presence of a number of Turkey Oak implies that additional planting has taken place in the early 20th century, but little documentation exists on this and it is clear that the woodland received no active management until the 1980s. Several small areas have been selectively felled, with restocking being achieved through a mixture of planting and recruiting natural regeneration. Much of this has received little maintenance and is dominated by Ash, so currently is in poor form. However, areas of Hazel and sycamore coppice shows good vigour – even in its over-stood state.

Work was undertaken in the 1990s to improve access with improved stoned tracks leading into the woodland from Sugworth Lane. Much of this has completely greened over now.

St. Hilda's College took ownership of Radley Large Wood in 2022, it being previously owned by W.P.R. Docker-Drysdale from 1990s.

Woodland Use:

Conservation, biodiversity, revenue generation and amenity have been central to previous

management. There was a bid from the local populace to change the land designation to 'public common' in 2005. This was unsuccessful but demonstrates the interest and strength of feeling the local community has in regards to Radley Large Wood, as does the extensive network of permissive paths.

Ash Dieback poses a significant hazard to those using the woodlands and will ultimately alter the woodland composition going forward. In its current state oak is unlikely to reproduce and needs active management if it is to continue as a long-term feature.

Soils:

Much of the woodland soil is a freely draining slightly acidic soil above a base-rich substrate. Sections of compartments 1, 2 and 3 provide a marked transition into seasonally wet clay heavy soil. This can be problematic as it causes the PRoW to become waterlogged – it is this area of woodland that receives the greatest foot fall.

The only other marked difference is the East corner of compartment 1 which has the shallowest soil of the woodland and as such is much more alkaline than the predominant acidic loam.

Tendency to become heavily waterlogged during the winter. Drainage has been identified as a potential area in need of improvement although biodiversity could also benefit from encouraging patches of wet woodland with enriched planting of species such as alder, willow, birch and guelder which would support endangered birds like willow tits and warblers, coal tits, siskins etc.

Habitats:

Management of open space

The UKFS requires a minimum of 10% of the woodland plan area to be managed as open space for biodiversity, cultural and recreational purposes. The existing open space within the plan area is made up of the PRoW and linking permissive paths and accounts for 7% of the total area.

The sensitive management of open habitats – such as log piles and standing tree-trunks - within a woodland introduces greater habitat diversity. This encourages a wider range of species and adds diversity and interest for academic research as well as all types of recreational activities. Many species make regular use of the edge habitats for feeding due to higher herb layer productivity and larger invertebrate populations. Wider rides are generally drier and therefore maintain a better surface for all year-round access.

The rides have been widened previously but only in limited areas, notably some 'scalloping' of the main ride has occurred to increase the area of the woodland edge, but further work is required. Future ride management will widen rides to 5m and introduce a woodland scrub buffer, both will be managed with a zonal system.

Management will aim to create a range of rides/paths at a width of 5 metres, but the scrub buffer will extend 10m either side of this – establishing a woody shrub and pioneer tree species habitat within the woodland. This will take the distance from crown edge to crown edge to 25m. Thinning intensity of the mature canopy should be increased alongside grassy rides to create a gradual transition from forest crop to scrub to grassy verge, allowing some tall broadleaf species

to remain as a softer fringe. The growth of Blackthorn, Beech, Cherry, Downy birch, Hazel, Hawthorn, Hornbeam, Lime, Oak, Sweet chestnut and Wild service, should be encouraged along ride margins to benefit Lepidoptera, ensuring they remain safe and do not impinge access.

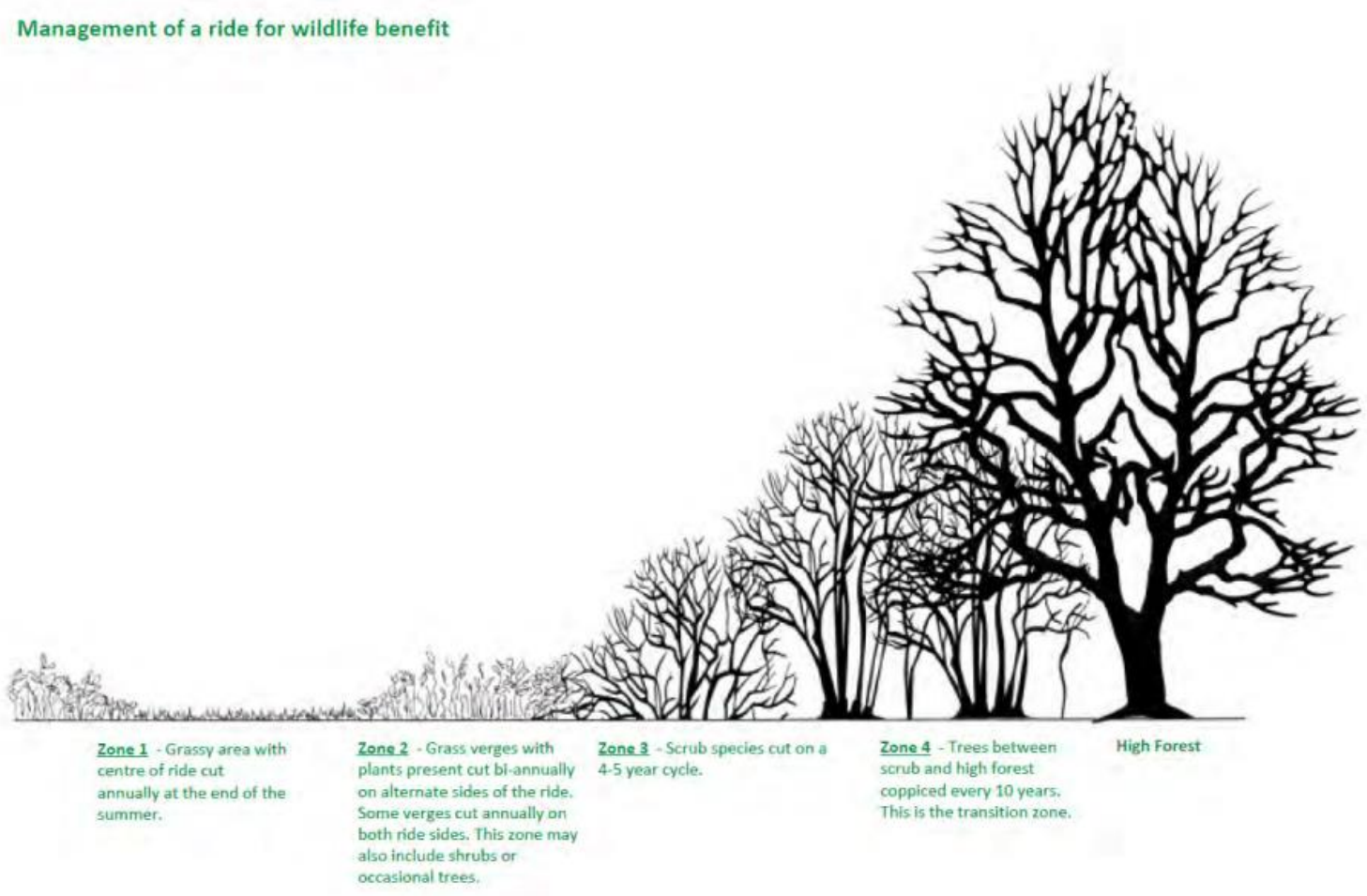
The Lepidoptera species of Radley Large Wood consists of high forest species, ride/glade species and those species that are dependent on coppice regimes. The network of rides has been divided into four zones:

1. Annual grass cuts along the centre of the ride.

2. Bi-annual grass cuts on alternate sides of the ride. Some verges cut annually on both ride sides.

3. Shrub species adjacent to these mown areas cut on a 5-10 year rotation.

4. Trees between the shrub and high forest thinned in line with standard practice but some retention desired to maintain upper and understorey dynamic.



Ancient semi-natural woodland:

This makes up the entirety of the plan area and infers the occurrence an element of historic intervention which has affected the overall composition and structure of the woods, but that there have been trees recorded on this site since 1066, it is at this point in history that the first forest inventory was undertaken and recorded. The longevity with which the plan area has maintained woodland fauna and flora is important and should be conserved going forward.

Radley Large Wood is characteristic of NVC community W10 'Oak, Oak-Ash Woodland' type. Restoration will be to a predominantly Oak woodland (supporting Wild service, Oak and Ash, with a Hazel and field maple understorey species and scrub/open space). It is important to note that some Ash is being impacted by Ash Dieback (Hymenoscyphus fraxineus) and affected trees will largely require removal and replanting. There is existing scattered ash coppice reflecting previous use patterns. This may be trialled as an experimental way to enhance sustainable ash provision for dependent species, while keeping the trees smaller and safer to handle.

Coppice:

Coppicing has historically been used in part of the management of Radley Large Wood and should be continued where it is already practiced benefitting coppice Lepidoptera species, demonstrate past management techniques and provide suitable material if new markets for coppice produce emerge in the long term. No fencing will be installed within the plan area, so active management of the deer population will be required to ensure successful regrowth.

Most of the coppice present at Radley Large Wood needs restoration felling. This will require the cutting of all the stools during the period October to March. This cutting will be staggered over a 5-10 year period, to establish a coppice rotation throughout the plan area. It will also depend on available markets that fit the College's wider objectives.

During the initial phase of coppice restoration and thinning, it may be necessary to layer and plant hazel to increase the stocking density.

Deadwood:

A large proportion of trees will be left in-situ as either standing deadwood (around 10% of the tree stock within the woodland) provided they are safe or well outside of the PRoW. Others (at least 40%) will be left where they fall or are felled, as it is important not to 'tidy up' woodlands– the rotting wood provides important habitat for fungi and invertebrates. This is in line with College's strategic biodiversity objectives.

Tree Species:

Radley Large Wood comprises of a continuous area of broadleaf species, growing in a mixture of Oak, Ash, Birch, Beech, Lime and Aspen. The understorey comprises of mainly Hazel, Holly and Sycamore. There are extensive and beautiful areas with bluebells and wood anemones.

Aspen is an increasing component, as the natural regeneration is beginning to crowd out other species. Previous efforts to increase age-class variation have faltered due to poor maintenance regimes, which is allowing the Poplar to colonise quickly. A problem exacerbated by Ash and its moderate to light canopy – the high levels of light to the woodland floor allow for light demanding species to thrive and this is a growing issue as the canopy affected by Ash Dieback thins creating a feedback loop in favour of the Aspen.

The woodland is made up of 5 compartments, many of which need sub-compartments to define distinct areas where the woodlands composition changes. There are also two notable Oak

veterans in compartment 1 that have had clearance work carried out around them. These two specimens will require further management to ensure longevity.

The intention of this woodland management plan is to introduce a broader mix of species to reduce any potential risk brought about by climate change and to increase the forage available for invertebrates and birds.

Age Class:

The current predicament of the woodland has been partially brought about by a condensed phase of work in the early 20th Century, with little subsequent work until the 1980s and then again between 2005 and 2010.

The woodlands natural ability to self-regulate and diversify its own structure has stalled due to human traffic, browsing pressure from deer and squirrel, and the introduction of Ash Dieback. Work will be required to reinvigorate this natural ecosystem service in order to build a resilient woodland.

The lack of vigorous young tree stock coming through and the noticeable decline of pole stage trees is creating a break in the natural regenerative cycle of the woodland. To correct this a two-phased approach is required:

(1) Reduce the pressures the woodland is facing, formalise permissive paths, and reduce resident deer and squirrel populations. The latter will be performed in a conscientious and appropriate manner, only after establishing and quantifying empirically the influence of deer and squirrel populations.

(2) Introduce trees to replace the failing Ash, diversifying the species composition and introduce a wider mix of growth rates, specifically selecting Birch, Rowan, Wild Service and Cherry as fast growing (shorter lived) species alongside the slower Oak, Beech, Hornbeam, and Yew. Such a programme is intended to maintain tree density without eliminating resistant ash.

The majority of the woodland will be managed using Low Impact Silvicultural Systems (LISS), where the age, structure and species present will be diversified through thinning operations. These will promote natural regeneration, but supplementary planting will be planned and implemented as required. Clear fell coupes (does not include oak or other large non-ash canopy trees) will help further break up the age structure, helping to replicate small scale disturbance and restocking with progress being measured at each plan revision.

Building resilient woodlands through species and age diversity is key to ensuring the long-term sustainability of the woodland within a changing climate. Delivering a forest more resilient to the threats from pests and diseases is key to both economic and ecological sustainability of the forest.

Access:

Well served by gated access from Sugworth Lane, previous work to improve ride width and internal access means future works can be enabled. The internal ride network links almost all of the woodland. However, a significant badger sett will hamper machine access into compartment

4.

Compartment 1 is also slightly underserved in this regard, requiring forestry operations to create space for future works. There is also limited space for timber stacks, which would need to be addressed.

The rides, permissive paths and small areas of open space have been managed to increase ground flora with some degrees of success.

Historic features:

A historic bank (undesignated, but possibly of medieval origin) lies on the west boundary of the woodland, parallel to the PRoW. This has been largely unmanaged and has semi-mature Oak, Ash and overstood coppice growing along it. Some of which was coppiced in 2013 to prevent walkers creating more desire lines through the edge of the woodland. This has created areas of dense re-growth that is in need of further cutting back. The impact of the desire lines is significant erosion to the bank along its length. Further work to protect and restore the bank will be needed. It supports a reservoir of common dog violets, needed for key butterfly species like silver washed fritillary which have anecdotally disappeared in recent years.

4.2 Information

Feature	Within Woodland(s)	Cpts	Adjacent to Woodland(s)	Map No
Biodiversity- Designations				
Site of Special Scientific Interest	No		No	
Special Area of Conservation	No		No	
Tree Preservation Order	No		No	
Conservation Area	No		No	
Special Protection Area	No		No	
Ramsar Site	No		No	
National Nature Reserve	No		No	
Local Nature Reserve	No		No	
Other (please Specify):	No		No	
Notes				

All Biodiversity species checked on NBN Atlas within a 4km radius of the woodlands

Feature	Within Woodland(s)	Cpts	Map No	Notes
Biodiversity - European Protected Species				
Bat	No			
Dormouse	No			
Great Crested Newt	No			
Otter	No			
Sand Lizard	No			
Smooth Snake	No			
Natterjack Toad	No			
Biodiversity – Priority Species				
Schedule 1 Birds	No			
Mammals (Red Squirrel, Water Vole, Pine Marten etc)	No			
Reptiles (grass snake, adder, common lizard etc)	No			
Plants	No			
Fungi/Lichens	No			
Invertebrates (butterflies, moths, beetles etc)	No			
Amphibians (pool frog, common toad)	No			
Multiple species recorded in the near vicinity to the woodland, but none formally recorded within the wood. It must be assumed that bats are roosting and feeding within the woodlands.				
Historic Environment				
Scheduled Monuments	No			
Unscheduled Monuments	No			
Registered Parks and Gardens	No			

Boundaries and Veteran Trees	Yes	1-4	4. Compartment Constraints – Environmental	Large number are future veteran trees (150-200 years old).
Listed Buildings	No			
Other (please Specify):	No			
Landscape				
National Character Area: Midvale Ridge				
National Park	No			
Area of Outstanding Natural Beauty	No			
Other (please Specify):	No			
People				
CROW Access	No			
Public Rights of Way (any)	Yes	1,3	4. Compartment Constraints - Access	
Other Access Provision	Yes	1-4	4. Compartment Constraints - Access	Permissive access has not been granted in any legal sense but is tolerated by the owner.
Public Involvement	No			
Visitor Information	Yes			
Public Recreation Facilities	No			
Provision of Learning Opportunities	No			
Anti-social Behaviour	Yes	1-5		Fly tipping and removal of wood from Radley Large Wood pose some issues to future management
Other (please Specify):	No			
Water				
Watercourses	No			
Lakes	No			
Ponds	No			

4.3 Habitat Types

Feature	Within Woodland(s)	Cpts	Map No	Notes
Woodland Habitat Types				
Ancient Semi-Natural Woodland	Yes	1-4	3. Landscape Constraints – Ancient Woodland	
Planted Ancient Woodland Site (PAWS)	No			
Semi-natural features in PAWS	No			
Lowland beech and yew woodland	No			
Lowland mixed deciduous woodland	Yes	1-4	3. Landscape Constraints – Priority Habitat	
Upland mixed ash woods	No			
Upland Oakwood	No			
Wet woodland	No			
Wood-pasture and parkland	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			

4.4 Structure

Woodland Type (Broadleaf, Conifer, Coppice, Intimate Mix)	Percentage of Mgt Plan Area	Age Structure (even/uneven)	Notes (i.e. understory or natural regeneration present)
Broadleaf (Oak 40%, Ash 40%, Sycamore 10%)	84%	Even	Planting years: 1900-1940 70%, 1980-1990 20%, 2000-2010 10%
Coppice (Hazel)	8%	Even	Some young coppice, but majority is overstood.
Conifer	1%	Uneven	Very small component of naturally occurring Yew
Open Space	7%		Wayleaves and linear rides

Section 5: Woodland Protection

5.1 Risk Matrix

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	Ash Dieback (*Hymenoscyphus fraxineus*)
Likelihood of presence	High – present
Impact	High
Response	Monitor health of Ash frequently: AD signs most prevalent during growing season (June – Sept) Remove economic age Ash with >50% dieback in crowns by thinning and regeneration felling, potential for some coupe felling in the future. Retention of some Ash as seed source and deadwood. Experimental scattered ash coppice to maintain smaller, more manageable trees as resistance emerges. Retention of all healthy Oak. Other species promoted in mixed stand over Ash. Encourage other species natural regeneration beneath Ash and underplant or enrich if financially sustainable/feasible with shade tolerant species such as Hornbeam. All operations and management shall adhere to the latest FC and FISA guidance; as of 2022, current guidance is Operations Note 46a/b. ESC to be referred to when identifying potential replacement species.

Threat	Acute Oak Decline/Sudden Oak Death
Likelihood of presence	Low
Impact	Low
Response	Monitor health of Oak frequently. Use Tree Alert to report related symptoms for prognosis Record and catalogue symptomatic trees; cordon off if practicable.

	Fell and dispose of parts of tree(s) where infection levels are low, otherwise follow recommended precaution when felling symptomatic trees: Acute oak decline - Forest Research

Threat	Oak Processionary Moth
Likelihood of presence	Low; currently just north of M25 but accelerating spread of the insect could give cause for concern in perhaps the next 5-10-year period. Impact on tree growth is not high; potential health issues to people is significant
Impact	High
Response	Monitor the national spread of this pest; currently on the outskirts of the OPM buffer zone.

Threat	Xylella fastidiosa
Likelihood of presence	Low – Likely to increase in near future
Impact	Medium – Tree species present such as Oak would be vulnerable to Xylella.
Response	Continue to monitor spread of disease

Threat	General Biosecurity
Likelihood of presence	Low
Impact	Medium
Response	EG Timber with suspected tree diseases to be handled as appropriate, following FC guidance for the particular health issue. Signage to inform visitors of best practice procedures such as boot cleaning at the start and end of each visit.

5.3 Deer

Threat	Muntjac, Roe and Fallow
Likelihood of presence	High
Impact	Medium/High
Response	Monitor for damage and adopt control measures immediately. 1.5m tall individual shelters if restocking. A deer management plan will be needed as part of any CSS application, including monitoring numbers and species. Instigate an appropriate, and carefully managed, culling programme targeting females in fallow to continue to manage the population. Monitor impact activity levels, using enclosure plots to create baseline studies for natural regeneration in Woodland to measure wider area

	against.

5.4 Grey Squirrels

Likelihood of presence	High
Impact	Medium - All broadleaved areas between 10-40 years are the most vulnerable and have evidence of damage. Without control measures, it is likely that damage will continue to unacceptable levels.
Response	Monitoring and control through traps is required. Instigation of an appropriate, and carefully managed, culling programme. Records to be kept and monitoring of vulnerable areas should be completed with review of trapping locations completed annually. Additional attention paid post harvesting activities to ensure increased light does not bring about increased squirrel activity and damage.

5.5 Livestock and Other Mammals

Threat	Rabbits/hares
Likelihood of presence	Medium
Impact	Medium
Response	Tree shelters will protect trees from browsing by rabbits, monitor for damage. Potential for rabbit control to reduce impact on ground flora and increase likelihood of tree regeneration.

5.6 Water & Soil

Threat	Soil erosion
Likelihood of presence	Medium
Impact	Medium
Response	Timetable management operations when ground conditions are suitable and (where possible) use existing tracks through standing crops to localise soil disturbance. If possible utilisation of brash as matting to alleviate some of the soil compaction will be carried out. Harvesting sites will be observed for evidence of soil erosion/compaction, particularly in wetter areas. Harvesting operations will not be carried out in unsuitable conditions i.e. on waterlogged soils. Appropriate planning of suitable access routes and reinstatement following disturbances will be built into all forestry operations involving machinery.

Threat	Soil compaction and rutting
Likelihood of presence	Medium
Impact	Medium
Response	Harvesting sites will be observed for evidence of soil erosion/compaction, particularly in wetter areas.

	Harvesting operations will not be carried out in unsuitable conditions i.e. on waterlogged soils. Appropriate planning of suitable access routes and reinstatement following disturbances will be built into all forestry operations involving machinery.

5.7 Environmental

Threat	Pollution
Likelihood of presence	Low-medium
Impact	Low-medium
Response	Harvesting machinery, maintained and fuels stored correctly, spill kits on site as appropriate. Specific fuel sites to be identified and maintained. Herbicides are not intended to be used during replanting to achieve College's biodiversity and sustainability objectives. Mulch mats will be deployed, budgetary constraints will be factored in.

5.8 Social

Threat	Public using undesignated access routes
Likelihood of presence	High
Impact	Medium
Response	Clear signage whilst works are in progress, monitoring and continual awareness of public. Extra precautions to be taken whilst working in all areas of the woodland.

Threat	Anti-social Behaviour
Likelihood of presence	Medium
Impact	Medium
Response	Avoidance of lone working and use appropriate signage used for all operations. Keep gates secure at all times. Report incidents and any fly-tipping immediately.

Threat	Damage to adjacent fences and property from falling trees
Likelihood of presence	Medium
Impact	Medium
Response	A 15m buffer around the woodland edge to be Regeneration-felled and restocked with a shrub-heavy mix focused on fruiting and flowering bird feeding species to protect residential amenity whilst also preventing future problems with trees/tree limbs falling beyond woodland boundary.

5.9 Economic

Threat	Timber prices
Likelihood of presence	Medium
Impact	Medium
Response	Monitor current and future timber markets to ensure a sustainable

	supply and price for timber; consider delaying operations if timber prices drop or the reverse if timber prices are strong. Sustainability objectives of the College will be prioritised at all times, including preferred use of coppice as the primary economic activity. Productive tree species included in the restructuring programme.

Threat	Operational costs
Likelihood of presence	Low
Impact	Low
Response	Ensure costs are checked and evaluated to reduce likelihood of unforeseen costs occurring. Ensure College's Biodiversity and Sustainability objectives are appropriately costed and delivered.

5.10 Climate Change Resilience

Threat	Lack of species diversity
Likelihood of presence	Medium
Impact	Medium
Response	Plan thinning operations to provide areas of increased light levels, allowing regeneration of a variety of species. Enrichment planting to occur within areas of thinned canopy to promote healthy regeneration. Large scale retention of dead wood as standing trunks or log piles/dropped sections Experimental ash coppice to provide long-term manageable option for ash-dependent species Some selective felling to occur for public safety and to remove uncharacteristic woodland species (Aspen), areas to be restocked as appropriate.

Threat	Species selection
Likelihood of presence	Medium
Impact	Medium
Response	Species selection and provenance for any potential restocking; refer to Ecological Site Classification Model for reference. Due to climatic shift, tree provenance will be examined. Current best practice supports mixing trees grown from lower latitudes into UK tree stock, for instance introducing French Oak seed into the composition of any tree planting is recommended. Opportunities to enhance wet woodland habitat and species will be explored.

Threat	Uniform structure and provenance
Likelihood of presence	Medium
Impact	Medium - Low
Response	Uniform structure: Encourage and develop multiple stratums through natural regeneration, underplanting and enrichment. Partially reduce canopy cover over vigorous understorey to establish more productive coppice Provenance: Introduce stock sourced from reputable suppliers and growers – preferably grown in the UK. Include seed sourced from southerly European provenances (2-3 degrees south of the wood)

Section 6: Management Strategy

Management Objective / Feature	Management Intention
Short term (1) Implement new woodland management plan (2) Instigate delivery of CS higher tier woodland work programme and grant application	(1) Survey and document woodland commission, write and consult on new woodland management plan in line with landowner's objectives (2) With Woodland Management plan approval, CS to be implemented thereafter promoting sound silvicultural practises in line with management plan. Accessing additional capital and revenue grants to support effective woodland management. As part of the CS agreement effective deer and squirrel management will be enacted to ensure investment into the woodland is preserved and enhanced, whilst contributing to the wider national programme designed to reduce browsing pressures.
Long term (1) Sustainably manage woodland to conserve and protect value as an important landscape feature, environmental asset and self-supporting economic asset.	All operations should be aligned to the College's sustainability and biodiversity objectives Operations programmes financially appraised and budgeted to show income, expenditure, and profitability on an annual basis. Co-ordinate harvesting programme to ensure

	efficiency of work, minimisation of disturbance to the woodland and its users and maximisation of timber revenue – through versatile methods of sale. Standing timber sales to be monitored pre and post intervention to demonstrate sustainable cutting and coppicing. Extend and expand ride network where practical and currently absent and formalise the network of permissive paths to enhance their appeal to the public and develop the ground flora within the woodland. Other streams of income kept under review, such as: local and national rural development initiatives for biodiversity/eco-system services, niche timber and non-timber markets, to support woodland management and improvement.
Maintain and enhance the woodland as an environmentally sustainable resource: (1) improve existing growing stock; (2) increase age structure and/or diameter distribution; and (3) enhance woodland carbon cycles.	(1) A regular thinning, felling, coppicing and restocking regime will be enacted to realise the value of the mature timber crop, whilst reducing the woodlands exposure to Ash Dieback. Thinning will bring on future trees improving marketability for future harvesting operations. Restocking to include productive species and a greater degree of variety to improve the diversity and resilience of the woodland. Maintenance works to younger areas of trees, such as pruning and cleaning, will improve quality of the product. (2) Regeneration felling to significantly reduce Ash component and to restructure the woodland further. 20% of mature Oak canopy to be kept for long term retention and to develop future veteran trees. This is only applicable to those areas marked as "Regeneration" compartments. Coppice to be managed to maintain short rotation cutting within the wood. Thinning to encourage natural regeneration and supported by enrichment planting to establish future tree crops. A greater proportion of open space developed to increase ground flora diversity across the woodland. Achieved through expanding of existing PRoW, permissive path and ride network.

	Clearance around existing veterans to create pockets of open space also. (3) Increased dead wood habitat (standing and on the ground) will improve soil conditions and increase biotic activity within the woodland.
Maintain existing and increase potential woodland functions to enhance the biological diversity within the woodland ecosystem: (1) diversify tree species; (2) recruit natural regeneration; (3) increase deadwood habitat; (4) protect threatened woodland species; (5) enhance soil and water functions.	(1) When restocking, consult ESC for appropriate species, plant intimate mixes to prevent monocultural woodlands and ensure effective establishment through on-going annual maintenance. (2) Where possible recruiting natural regeneration instead of planting will be promoted. The continuation of local seed sources is important for tree genetics (but should be supplemented with planting). *Implement deer control across the woodland, so that browsing of natural regeneration and other flora is reduced.* (3) When completing thinning operations, do not remove existing deadwood but create new deadwood by leaving branches and low-quality timber. Leaving standing deadwood, where safe to do so, creates invaluable habitat for birds and bats. (4) Species highlighted in the 'Priority species@ to be preserved and protected in line with UKFS and FC regulations. (5) A water course and balancing ponds runs along the Western woodland boundary, with two small watercourses bisecting the woodland. One permissive path crosses an eroded culvert that will need improvement. Otherwise watercourses to be kept cool under canopy cover but free of debris. Herbicide use will be avoided to prevent water contamination.
Undertake a considered approach to Ash Dieback within the woodland (taking into account Ash Dieback-resistant trees and Ash-dependent species) without compromising objectives 1 and 2. Regular Tree Health surveys undertaken to contribute to public safety.	Monitor ash on an annual basis and respond as needed; if additional areas are needing more intensive operations, stand alone felling licences will be applied for. Annual monitoring will be undertaken to ensure accurate assessment of tree health is made prior to the recommendation of further works. Annual reports to document the progress of Ash Dieback and any potential immunity seen.

	Some ash will be coppiced throughout the wood to maintain a trial population of lower, more manageable trees
Observe environmental pressures on new planting, natural regeneration and coppice regrowth and take appropriate action to mitigate damage and/or losses. This includes monitoring climatic impacts, as well as managing the presence of Deer and Squirrel.	Implement deer and squirrel control across the woodland, through appropriate, and carefully managed, culling and trapping (squirrels only) programmes. Cull records to be kept, a management plan to be created and a Deer Impact Assessment. The assessment will identify any areas of browsing or general damage that will impact natural regeneration and other flora. Continue with ride management programme: 2-zone structure, with the intention of thinning ride side canopy and enriching with woody shrubs. Creating 5m wide rides with a further 20m wide area of woodland edge. Protect identified veteran trees and recruit further specimens as they become readily identifiable through thinning and felling operations. Works to re-establish the woodland bank and preserve it through protection along Western PRoW. Rejuvenating hedges where present. Promote and secure native natural regeneration and replant, underplant, enrich the woodland tree species. Establish non-intervention areas for study of browsing pressures and native flora.
Ensure the woodland is economically self-supporting by way of realising modest returns from coppicing and silviculture without compromising objectives 1 and 2. A planned thinning and felling programme for the good health of the woodland will require improvements to existing drives and stacking areas.	Creation of rides, hard standing tracks and stacking areas, possibly funded through CS WD2 scheme to enhance the woodlands ability and capacity for commercial timber sales. Stand restructuring and regeneration includes productive native broadleaved tree species, in keeping with the present vigorous components. Straight clear stems will be promoted for timber species, whilst space will be afforded to open grown habitat trees. Pruning targeting productive species to develop and maintain good form.
Maintain public rights of way, by removing obstructing trees and widening	Duty of Care surveys along all PRoWs and permissive routes every 2 years, to identify any dead, dying, or

rides to clearly identify the permissive routes open to the public. The existing wood bank is a notable historic feature running parallel to the Public Right of Way (PRoW) and its condition should be preserved.	dangerous trees that pose a health and safety risk. Historic elements to be identified prior to any felling operations and marked clearly with tape or paint, so that no damage is caused.

Section 7: Stakeholder Engagement

Work Proposal	Individual/ Organisation	Date Contacted	Date feedback received	Response	Action
General WMP consultation	Vale of White Horse District Council, Abbey House, Abbey Close, Abingdon, OX14 3JE Tel: 01235 540504				
General WMP consultation	Oxfordshire County Council, Signal Court, Old Station Way, Eynsham OX29 4TL				
General WMP consultation	Forestry Commission, Chilterns Forest Office, Upper Icknield Way, Aylesbury, HP22 5NF Tel: 01296 696662				
General WMP consultation	Historic England, Swindon Office,				

	The Engine House, Fire Fly Avenue, Swindon, SN2 2EH Tel: 01793 445050				
General WMP consultation	Natural England, Red Kite House, Howbery Park, Wallingford OX10 8BD Tel: 03000 603900				
General WMP consultation	Environment Agency, Red Kite House, Howbery Park, Wallingford OX10 8BD Tel: 08708 506506				
General WMP consultation	Radley Parish Council Jane Dymock 73 Eaton Road Appleton Abingdon OX13 5JJ Tel: 01865 864360	28th July Initial Teams meeting held.	31st July	Positive	After final amendments made to WMP, Parish council to receive completed management plan for final stage of consultation.
General WMP consultation	Berks, Bucks & Oxon Wildlife Trust				

	Trust Head Office The Lodge, 1 Armstrong Road, Littlemore, OX4 4XT Tel: 01865 775476				
General WMP consultation	Pebble Hills and Woodlands Mobile Home Parks Manager, Mandy Courtney, Abbey House, Abbey Close Abingdon OX14 3JE Tel: 01235 422672	31st July 2 meetings with approx. 50 people in attendance (total)	31st July	Positive	Nicholsons to create online 'forum' for effective communications during the 10 year duration of the management plan – method for this TBC (website, social media, etc)

Section 8: Monitoring

Management Objective/Activities	Indicator of Progress/Success	Method of Assessment	Frequency of Assessment	Responsibility	Assessment Results
Maintain and enhance the woodland as an environmentally sustainable resource: (1) improve existing growing stock; (2) increase age structure and/or diameter distribution; and (3) enhance woodland carbon cycles.	(1) Increased growth rates across the woodland. (2) Increased range of age structure throughout, with a broader composition of sized tree. (3) Increased levels of deadwood	Mensuration and visual assessments.	Annually	Woodland Manager	
Maintain existing and increase potential woodland functions to enhance the biological diversity within the woodland ecosystem: (1) diversify tree species; (2) recruit natural regeneration; (3) increase deadwood habitat; (4) protect threatened woodland species; (5) enhance soil and water functions.	(1) Development of a wider native broadleaf mix, with a small component of conifer improving climatic resilience. (2) More natural regeneration and active selection and protection of trees. (3) Increased levels of deadwood, visible and frequent habitat piles. (4) Increased flora and fauna throughout. (5) Reduction in existing areas of standing water.	Surveys and visual assessments	Annually	Woodland Manager	
Undertake a considered approach to Ash Dieback within the woodland (taking into account Ash Dieback-resistant trees and Ash-dependent species) without compromising objectives 1 and 2. Regular Tree Health surveys undertaken to contribute to public safety.	Progressive removal of Ash from the woodland, leaving intact trees showing signs of resistance and/or viable seed sources to promote genetic development and variation in the species.	Timber volumes measured from harvesting activities, mensuration, and visual assessments	Annually	Woodland Manager	

Observe environmental pressures on new planting, natural regeneration and coppice regrowth and take appropriate action to mitigate damage and/or losses. This includes monitoring climatic impacts, as well as managing the presence of Deer and Squirrel.	Successful establishment of new trees within Radley Large Wood, with the inclusion of natural regeneration. The introduction of a stalker and inclusion of venison into the food market. Reduction of squirrel numbers within Radley Large Wood to a manageable level. The eradication of the grey and reintroduction of the red would desirable, but highly unlikely.	Surveys and visual assessment. Ecological survey could be undertaken if desired by landowner	Annually	Woodland Manager Ecologist	
Ensure the woodland is economically self-supporting by way of realising modest returns from coppicing and silviculture without compromising objectives 1 and 2. A planned thinning and felling programme for the good health of the woodland will require improvements to existing drives and stacking areas.	Introducing tendering process to maximise timber revenues. Implementation of a 'Standing Sale' regime when harvesting to minimise cost to client. Where possible and appropriate auctioning of high-quality Oak to implemented to increase value of timber. All activities undertaken with cost of implementation considered and communicated through	Tendering to happen for all harvesting contracts.	In good time as/when works are to be undertaken. Budgets - annually	Woodland Manager	

	annual budgets and cashflow forecasts.				
Maintain public rights of way, by removing obstructing trees and widening rides to clearly identify the permissive routes open to the public. The existing wood bank is a notable historic feature running parallel to the Public Right of Way (PRoW) and its condition should be preserved.	Established and well used routes through Radley Large Wood promoting easy access for the local communities. Active mowing and maintenance regimes in place to ensure ground is kept in good condition and meets biodiversity requirements for future CSS and landowner's objectives. Clearly defined routes with accompanying signage to reduce soil compaction/erosion of historic features	Visual assessment and quality control of works.	Annually	Woodland Manager	

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**	
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.	• Survey information (***Sect. 4***) identifies any designations that impact on woodland management. • Management intentions (***Sect. 6***) have taken account of any designations.	**Yes**	
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**	

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**	
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 *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):** **Sam Riley**	**Date:** **14/12/2023**
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):** **Angus Clarke**	**Date:** **13/02/2024**

Appendix 1: Compartment record and map