



Caddam and Migvie Wood WIAT Plan 2023-2033





Urban Woodland Management Plan (UWMP) Details			
UWMP Name:	Caddam Wood		
Business Reference Number:	114195	Main Location Code:	67/115/0069
Grid Reference: (e.g. NH 234 567)	NO 381 558	Nearest town or locality:	Kirriemuir
Local Authority:	Angus		
Management Plan area (hectares):	59.86		

Owner's Details			
Title:	Mr	Forename:	Antony
Surname:	Gifford		
Organisation:	The Kinnordy Farms Partnership	Position:	Director
Primary Contact Number:	01575 572665	Alternative Contact Number:	
Email:	antony@kinnordy.com		
Address:	Kinnordy Estate Office Kinnordy Home Farm Kirriemuir		
Postcode:	DD8 5ER	Country:	Scotland

Agent's Details			
Title:	Mr	Forename:	Steven
Surname:	Liddle		
Organisation:	Greenbeard Forestry Limited	Position:	Director
Primary Contact Number:	01349 866 757	Alternative Contact Number:	07810553226
Email:	steven@greenbeard.uk		
Address:	Munro Sawmills, Old Evanton Road, Dingwall, Ross shire		
Postcode:	IV15 9UN	Country:	Scotland

Access Consent – Complete if applying for thinning

You are not obliged to give us consent to enter your land, however if we are denied access to your land, and cannot carry out an assessment because of this, we may reject your application. This consent is for access to assess this



application as well as monitor compliance with any subsequent approval, where applicable.

Do you give consent for Scottish Forestry to access your property?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
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Town and Country Planning – Complete if applying for thinning

Are any of the trees to be felled subject to a Tree Preservation Order?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
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If YES please provide details:

Are any of the trees to be felled within a Conservation Area?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
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If YES please provide details:

Declarations – Complete if applying for thinning

I hereby apply for a permission to fell the trees described in this application and I certify that:

- I am the landowner or an occupier of the land with written permission of the landowner;
- Where the landowner is a business, I am authorised to sign legal contracts on behalf of that business;
- If I am an acting on behalf of the landowner or occupier, I have been mandated to do so;
- Any necessary consents from any other person(s) if required, have been obtained;
- I have made the necessary checks with the local planning authorities regarding Tree Preservation Orders and Conservation Areas;
- I have notified all stakeholders that may be affected by the felling in this application and sought their views prior to submitting this application;
- I hereby acknowledge that Scottish Ministers may process any of my personal data contained in or relating to this application in accordance with the terms of Scottish Forestry's Privacy Notice, a copy of which is available at www.forestry.gov.scot;
- I have read and understand this application fully and, to the best of my knowledge and belief, the information given in this application is complete, true, and accurate;
- I accept that any false or misleading information provided in this application constitutes an offence and may result in any felling permission based on this application being revoked at any time.

[This application may only be signed by the owner of the land or the occupier of that land where they have written permission to do so. For land owned by a business it must be signed by



someone with the authority to sign legal contracts on behalf of that business. If you are an agent signing this on behalf of the aforementioned you must append a copy of your mandate.]

Signed:

Print:

Date:

Approval - to be completed by Scottish Forestry staff:

Management Plan Reference Number:			
Plan Period: (ten years) (month/year)	From:	To:	
Operations Manager Signature:		Approval Date: (dd/mm/yyyy)	

List the maps contained in the management plan

Map Reference	Title	Location (page / appendix)
Map 1	Location	
Map 2	Sub-compartments	
Map 3	Constraints and opportunities	
Map 4	Design concept	
Map 5	Thinning	
	Planting/ Restructuring	
	Access improvements	
	Other:	

Summary of key outputs at end of plan period

Area of woodland accessible to the public (ha)	59.86
Length of footpaths : new or upgrade (km)	3.813km
Area of Felling and restructuring (ha)	0
Area of thinning (ha)	59.86
Other (specify)	

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Appendix 1 – Work Programme

1 Introduction

This ten-year management plan template is designed for woodlands that are being funded under the Forestry Grant Scheme (FGS) Woodland Improvement Grant (WIG) Woods In and Around Towns (WIAT) Urban Woodland Management Plan Grant. The plan is subject to review after five years. This plan template should also be used for all sites where you will be applying for WIG – WIAT or Sustainable Management of Forests (SMF) - WIAT grant options. However, for planned new woodlands or woodlands less than 10 years old some sections of this plan will not be applicable.

The submission of this plan will be considered as an application for permission to thin the woodland over the 10 year plan period, subject to the completion of the thinning table in Appendix 2 and the submission of appropriate maps. If you intend to carry out other types of felling you must apply for permission separately.

You should consult with your local Woodland Officer on the plan. When we are happy that the plan meets our requirements we normally consult on the document more widely and place any linked Felling Permission applications, except thinning, on our Public Register for 28 days.

The plan detail will be approved for the first five years (along with a Felling Permission for thinning if appropriate). The second five years will be approved in outline with an expectation that full approval will be sought at the five-year review.

2 Woodland Description

This section is about collecting information relating to your woodland's location and character. This should include details about:

- current species and ages
- structure
- statutory and non-statutory constraints (e.g. designations, archaeological interest)
- existing or potential public access

The [Scotland's Environment website](#) can aid you in completing this section. For more detailed information on the Native Woodland Survey of Scotland use the Scottish Forestry Map Viewer found on our website: forestry.gov.scot

Please provide a 1:50,000 location map and a 1:10,000 or 1:2,500 scale OS map that shows the boundary of the woodland and compartments and/or sub-compartments. You can include other maps to show the location of woodland attributes listed in the tables below. Please list all maps on page 2.

You may also wish to include a photo record as an appendix to illustrate the character of the woodland and its key features.

2.1 Provide details of any current or previous grants

Grant Type	Contract Ref	Expiry Date
Forestry Commission/Scottish Forestry:		
WGS		
SFGS	033900267	2016
Forestry Challenge Fund		
SRDP Rural Priorities	15FGS00336	2027
Other grant bodies		

2.2 Description of the woodland in the landscape

Caddam (Cpts 10 & 11) and Migvie Wood (Cpt 28) are integral parts of Kirriemuir's amenity network to the north and eastern outskirts of the town. Both Woodlands are detailed on the Six-inch 1st edition, Scotland, 1843-1882 so are considered semi natural ancient woodland.

The woodlands are classical in their species mosaic with mixed broadleaf species such as Sycamore, Common beech, Sessile oak remaining from the original policy planting (especially Migvie Wood) along with Scots pine, Sitka spruce, European larch and Douglas fir. Over the years in the non-commercial fringes of both woodlands the mixed conifer (MC) element has slowly disappeared due to the increased susceptibility to wind, the enrichment planting of such MC is one of the key aims of this plan.

The woodlands are unique in their comparatively small scale yet large amenity value and relative diversity, with LEPO Scots pine (SP) heathland (Cpt 11j), policy MB/MC, young plantation SP and native broadleaf (NBL) natural regeneration Cpt d1) and dark mysterious commercial SS on a grand height of 40m in Cpt 11b. All these habitats are detailed on Map 2 (Specie Map) and are intersected by a myriad of trails both official and with desire lines on top. These trails are formed by a diverse user group including dog walkers, cyclists and horse riders, making the path surfacing all the more important to reduce the long-term impact on the environment.

To the northern edge of Caddam (Cpt 11a1) there are important ancient wet woodlands consisting of Downy and Silver birch, Hazel and Sessile oak, which could be greatly enhanced by the removal of non-natives and the restriction of access and drain blocking .

Caddam Wood is a Red squirrel stronghold given its coniferous centre, which has less disturbance than the perimeter in which the core path is situated (See Map 4). This core path does pass over the plans one key archaeological feature which is the Roman road shown on Map 3. The road line is clear of woodland within Caddam Wood and was scheduled on 14 February 1958 (SM143) and is of national importance, running from the south western edge to the north-eastern



tip of the woodland.

2.3 History of Management:

Provide a brief statement on ownership and recent management.

Caddam wood has been part of Kinnordy from the late 1800's onwards and has elements typical of policy woodland design of that period which, had its emphasis on landscape design, sporting use and timber production for estate use. Migvie wood (Also locally known as Kates wood) has also been in Kinnordy ownership since the Victorian period and unlike Caddam is mostly composed of mixed broadleaves likely associated with pheasant cover. Neither woodland has had any commercial clearfell activity within the last two LTFP periods although Cpts 11a & b in Caddam were deer fenced and restocked in 2006 with mixed broadleaves and Scots pine, which are now well established. Kates wood was restocked with MB in 2006, but still has a generally open nature dominated by Sycamore.

Perhaps the most important and interesting feature of Caddam is the presence of a Long-Established Woodland of Plantation Origin (LEPO) composed of Scots pine and European larch (Cpt 11e). The stand is dated as 1900 in regard to its planting year and the pine are indeed spectacular in height and form with a fine heathland ground flora in place with *Calluna vulgaris* (Heather) and *Vaccinium myrtillus* (Bilberry or Blaeberry).

Caddam's coniferous heart is completed by the fine SS and EL in Cpt 11d which are oversized by industry standards, but offer the framework of high value seed trees for Continuous Cover Forestry (CCF) within the wood. Selective thinning of these 40m high spruce planted in 1969 will keep the landscape continuity and preferred habitat of the resident Red squirrels, whilst also offering a cathedral like experience for users in comparison to other MB areas of the woodland.

Finally, limited access upgrades at Caddam were carried out in 2006 with some access management gates to stop mechanised access, along with path resurfacing and provision of benches. This infrastructure is now in disrepair and its replacement is a key objective of this plan.

2.4 Physical site characteristics

Describe the soils, climate and terrain of the site referring to site or climatic constraints on the growth of tree species (e.g.wind, waterlogging).

Both woodlands are relatively flat with Caddam lying at 160m elevation and Migvie at 170m, and share their main boundaries with public roads. Caddam is sheltered in aspect gaining shelter from the nearby Castle and Meams hills to the North. Migvie is exposed to the east and is near the top of the Hill of Kirriemuir and the associated amenity park and Trig point. Soils within Caddam and Migvie



are both brown earths which Old Red Sandstone origins particular to the area. Caddam does have considerable surface organic matter due to the heavy Beech cast and the flat nature of the site leading to a rich moist humous layer, with parts of 11c holding valuable standing water W4 woodland with ancient *Betula pendula*.

These site characteristics have shaped the two compartments with good conifer growth possible in Caddam, but the exposed Migvie is best suited to broadleaves in the main.

2.5 Woodland Composition, Structure and Condition

Provide a summary of the woodland composition by grouping areas of similar stands or habitats that will be managed in the same way together. Grouping can be based on:

- Whether the area is composed of broadleaf, conifer or mixed species
- The type of woodland or habitat in the area (e.g. open ground/scrub/plantation/coppice)
- The development stage or age of the area (eg. establishment, thicket, pole-stage, mature, over-mature). Plantations with similar planting years can be grouped together.
- Location or natural boundaries

The group should be given a number or a descriptive name (e.g. 'ancient woodland', 'new plantation', 'playground'). The table should also include some brief notes to describe the common features of the group.

Express the area of the each group as a percentage of the total woodland area (including open space)

Section 2.5

Group (no. or name)	Conifer/ Broadleaf/ Mixed/	Habitat type	Development stage/Age	Description	% of woodland area
Cpt 10a	MB	Policy	100 years	Beech dominated open woodland	
Cpt 10b1	MB	Woodland Scrub	25 years	Natural Regen of PBI, GW and SS	
Cpt 10b2	MB	Policy	100 years	Beech dominated open woodland	
Cpt 10c	MB	Scrub Woodland	62 years	Poor form mixed MB unmanaged	
Cpt 11a1	Be/MB	Policy & Wet Woodland W4	100 years	Beech dominated with Silver and Downy birch wet woodland	
Cpt 11b	SS/NS	Commercial	54 years	Closed canopy old growth Sitka stand	
Cpt 11c1	EL	Commercial	54 years	Open European Larch stand	
Cpt 11a2	MB	Policy	100 years	Beech dominated policy avenue	
Cpt 11d1	MC	Mixed SS/SP and NBL	17 years	Natural thicket regeneration of MC/MB	
Cpt 11f	WH	Commercial	54 years	Poor form Hemlock	
Cpt 11h	MB	Scrub Woodland	47 years	Thicket PBI, GW by Roman Road	
Cpt 11j	SP	W18	103 years	Old Growth SP LEPO stand with Heathland ground cover	
Cpt 11k	SP/MB	W18 - Policy	103 years	Some old LEPO aoulying main stand with Beech dominated in the main	
Cpt 11g1	MB/SP	Unthinned Policy Thicket	17 years	Dense mixed NN which could become MB/MC	
Cpt 28a	MB	Policy Scrub	38 years	Poor quality MB with some veteran SP and Beech on boundary dykes	
Cpt 35a	MC/MB	Policy	100 years	Woodland in and around disused quarry.	

For larger or more diverse woodlands a full sub-compartment schedule may be required. This can be provided as an appendix and should include the following fields: 'compartment', 'sub-compartment', 'Area (ha)', 'Main species', 'Age', 'Stand structure', 'Stand condition' and 'management prescriptions'. This will be read in conjunction with the sub-compartment map that you will provide.

2.6 Greenspace and Green Network Context

Gather together strategic information on the woodland i.e. - looking beyond the site.

Strategy or policy	Document Title	Page or section
Forest & Woodland Strategy	Angus Woodland & Forestry Framework 2011	Themes 4,5 & 7
Local Access Strategy	Angus Core Path Plan	Map 9a
Other		
Other		

Provide information on any relevant developments planned within or in the vicinity of the woodland			
	Within wood	Adjacent to wood	Details
planned development	<input type="checkbox"/>	<input type="checkbox"/>	
growth area	<input type="checkbox"/>	<input type="checkbox"/>	
other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	
Additional detail (if required)			

Provide information on the context of the site with regard to recreational and transport infrastructure in the local community				
Feature	Within wood	Adjacent to wood	Details	Map Ref
Country Park	<input type="checkbox"/>	<input type="checkbox"/>		
Core Path Network route	x	<input type="checkbox"/>	Sections 259-264	3-4
National Cycle Route	<input type="checkbox"/>	<input type="checkbox"/>		

Long distance footpath	<input type="checkbox"/>	<input type="checkbox"/>		
Public transport links (bus, train, tram)	<input type="checkbox"/>	<input type="checkbox"/>		
Public facilities (schools, leisure centres, community centres)	<input type="checkbox"/>	<input type="checkbox"/>		
Additional detail (if required)				

2.7 Recreation Features				
Feature	Within wood	Adjacent to wood	Details	Map Ref
Clearly defined and accessible entrance	x	<input type="checkbox"/>	Access Styles as detailed on Maps	3-4
Public footpath	x	<input type="checkbox"/>		
All abilities trail	x	<input type="checkbox"/>		
Public bridleway	<input type="checkbox"/>	<input type="checkbox"/>		
Public cycle path	<input type="checkbox"/>	<input type="checkbox"/>		
Core path network	x	<input type="checkbox"/>		
Other footpaths	x	<input type="checkbox"/>		
Car park	<input type="checkbox"/>	<input type="checkbox"/>	Informal, parks to be created	3-4
Play/sport facilities	<input type="checkbox"/>	<input type="checkbox"/>		
Site threshold signage	x	<input type="checkbox"/>		3-4
Visitor information (on-site or other e.g. leaflet, website)	x	<input type="checkbox"/>	Kinnordy Estate Facebook page	
Toilets	<input type="checkbox"/>	<input type="checkbox"/>		
Provision of learning opportunities	<input type="checkbox"/>	<input type="checkbox"/>		
Occurrence of Anti-social behaviour	x	<input type="checkbox"/>		
Occurrence of Fly-tipping	x	<input type="checkbox"/>		
Occurrence of personal security issues	<input type="checkbox"/>	<input type="checkbox"/>		

Population within 2km of the woodland	6060 (2020) Source National Records of Scotland.
<p><i>Estimate the population that lives within 2km of the woodland. Use the space below to comment on your estimate. Population statistics are available from the National Records of Scotland.</i></p>	

2.8 Cultural Features				
Feature	Within wood	Adjacent to wood	Details	Map Ref
Scheduled monument	x	<input type="checkbox"/>	Roman Road	3
Conservation Area	<input type="checkbox"/>	<input type="checkbox"/>		
Listed Buildings	<input type="checkbox"/>	<input type="checkbox"/>		
Other archaeological site	<input type="checkbox"/>	<input type="checkbox"/>		
Other cultural features of interest	<input type="checkbox"/>	<input type="checkbox"/>		
Additional Detail (if required):				

2.9 Landscape Feature				
Feature	Within wood	Adjacent to wood	Details	Map Ref
National Park	<input type="checkbox"/>	<input type="checkbox"/>		
National Scenic Area	<input type="checkbox"/>	<input type="checkbox"/>		
Special Landscape Area	<input type="checkbox"/>	<input type="checkbox"/>		
Registered Parks and Gardens	<input type="checkbox"/>	<input type="checkbox"/>		
Other designed landscape	<input type="checkbox"/>	x	Kinnordy House	1
Attributes which contribute to sense of place	<input type="checkbox"/>	<input type="checkbox"/>		

Additional detail (if required):

2.10 Biodiversity Features				
Feature	Within wood	Adjacent to wood	Details	Map Ref
SSSI	<input type="checkbox"/>	<input type="checkbox"/>		
SPA	<input type="checkbox"/>	<input type="checkbox"/>		
SAC	<input type="checkbox"/>	<input type="checkbox"/>		
Ancient Woodland (State which category applies: ASNW/PAWS/LEPO)	x	<input type="checkbox"/>	Stand 11c	3
Other (local) nature conservation site (LNCS/SINC/LBS)	<input type="checkbox"/>	<input type="checkbox"/>		
European Protected Species	x	<input type="checkbox"/>	Red Squirrel	3
Badgers	<input type="checkbox"/>	<input type="checkbox"/>		
BAP species (state whether local or national)	<input type="checkbox"/>	<input type="checkbox"/>		
BAP habitats (state whether local or national)	<input type="checkbox"/>	<input type="checkbox"/>		
Other species of note	<input type="checkbox"/>	<input type="checkbox"/>		
Veteran Trees	x	<input type="checkbox"/>	WPA	3
Deadwood	x	<input type="checkbox"/>	WPA	3
Additional detail (if required):				

2.11 Water Features				
Features	Within Wood	Adjacent to Wood	Details	Map Ref

Waterbodies	<input type="checkbox"/>	<input type="checkbox"/>		
Watercourses	<input type="checkbox"/>	<input type="checkbox"/>		
Additional detail(if required)				

2.12 Threats

Describe any threats facing your woodland(s) and where relevant, under the following headings, detail the likelihood of presence and the potential impact as high (H), medium (M) or low (L).

Threat	Description	Likelihood (H/M/L)	Impact (H/M/L)
Invasive/Noxious species (e.g. Rhododendron, giant hogweed, Japanese knotweed)			
Tree Health	Beech bark disease	M	L
Mammal damage: deer, rabbits, hares, grey squirrels			
Water & Soil (soil erosion, acidification of water, pollution, contaminated land)			
Environment (flooding, wind damage etc.)			
Climate Change (eg. unsuitable species/provenance, lack of diversity, uniform structure)			
Anti-social behaviour (eg, arson, fly-tipping, unauthorised vehicle access, vandalism)	Fly tipping incident on Windy Ghoul Road. Gates required to stop unauthorised access	H	H
Dangerous trees	Veteran Beech	M	M
Other (specify)			

Additional Detail (if required):

3 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 and how you envisage it will be in the future.

3.1 Vision

Describe your long term vision for the woodland(s).

Caddam and Migvie woods are already enjoyed by a large and varied stakeholder group from Kirriemuir and the surrounding area. The plan for Caddam is to future proof existing infrastructure which is now derelict, making it a well maintained and welcoming amenity woodland for all users. As part of Kinnordy Estates drive towards sustainable CCF woodland management Low Impact Silvicultural Systems (LISS) will be at the heart of restructuring the woodland to provide a diverse range of woodland habitats, benefiting visitors and biodiversity alike.

3.2 Management objectives

State the objectives of management. Objectives are a set of specific statements that represent what needs to happen to achieve the long term vision.

No.	Objectives (including environmental, economic and social considerations)
1	Access improvement, including drainage, access points for users and resurfacing for all ability users.
2	Provision of interpretation for key areas such as biodiversity, Archaeology and woodland management. In addition, community education and guiding can be made available as well as community participation in practical woodland management.
3	Restoration of LEPO W18 Heathland habitat with removal of thicket Beech NN in tandem with hand thinning of thicket NN to improve form and sub canopy flora.
4	Creation of a woodland arboretum walk in Caddam and enrichment planting of Migvie with high value policy MC and MB species lost to the elements over the past century, such as Fir, Oak and fruit tree species.
5	Silvicultural management using Continuous Cover Forestry (CCF) to improve species and age diversity to safeguard the woodlands long term

No.	Objectives (including environmental, economic and social considerations)
	value for amenity and biodiversity.
6	

4 Stakeholder Engagement

Stakeholder engagement, especially with the local community is a crucial part of WIAT woodland management. We will not approve a plan which does not provide evidence of adequate community engagement.

The [Community Engagement Toolkit](#) provides guidance on types of community engagement that may be appropriate. Identify people or organisations with an interest in your woodland and record any engagement in the table below.

Ensure constraints/opportunities and other issues raised by the stakeholders are also recorded on the constraints and opportunities map and table (see section 5.1).

Organisation or individual	Type of involvement (refer to Toolkit categories)	Date feedback /input received (DD/MM/YY)	Issue or Opportunity
Scottish Forestry	Statutory Governance	21/06/2022	FGS technical amendments
UKFSG	FSC	28/11/2022	FSC Annual Report change to existing FGS LTFP plan.

5 Analysis and Management Strategy

Analysing the Stakeholder Engagement in section 4 will allow you to identify how to make best use of the site and its resources to achieve your objectives.

The key tasks are:

- Take into account the expectations set out in the WIAT management standard (insert link).
- Explore options for designing the woodland, its spaces, views, habitats and access points to create an attractive resource with a distinct character.

- Explore how the trees and woodland can be actively managed using good silvicultural practice to ensure that the woodland is sustained and enhanced for the long-term.
- Analyse the context of the site and identify options for increasing the use of the woodland
- Explore how the recreational facilities, access opportunities and activities of the site can best be developed to support and encourage greater use.
- Take into account community perceptions and expectations – this must be demonstrated by referring to the issues raised during community engagement recorded in section 4.1
- Consider the management responses to each threat given in section 4.8

5.1 Constraints and Opportunities Analysis

Analyse the constraints and opportunities and record the results on an annotated map and in the table below. The key tasks in Section 5 above must be taken into account.

Feature/Issue	Constraint	Opportunity
Roman Road	Possible damage from regrowth of woodland and mechanical activity.	Education using interpretation, literature and field visits for Schools. Section of reconstruction at Windyghoul to show construction technique.
LEPO stand heathland restoration	High frequency public access. Breeding birds and red squirrels.	Unique opportunity to create a W18 habitat in close proximity to a town in Angus. This can then be used as a seed stand for future SP restocking sites along with an easily accessible site for educational visits.
Woodland Structure Detoriation	Lack of management resulting in thicket MB in Migvie and Caddam woods resulting in poor quality woodland of little biological or amenity	Chance to restructure using exciting policy species which can enhance amenity and biological value such as creating an orchard in

	value.	Migvie and a arboretum in Caddam.
Amenity Access	Poor access points at both Caddam and Migvie, leading to vergeside parking and pedestrians on the public roads.	Creation of improved off road parking areas as detailed on Maps 3-4. Allowing safe all ability access points to both woodlands.
Amenity Access	Derelict access features including footpaths, drainage, seating and access gates along with interpretation.	Restoration of path network including footbridge in Caddam, allowing safe sustainable year round access.
Additional detail (if required)		

The Management Strategy (section 5.2) should address the key issues and objectives identified within the stakeholder engagement (section 4) and the Constraints & Opportunities Analysis (section 5.1)

The key management issues to be addressed, which have arisen from the constraints and opportunities analysis, should be recorded below and on a design concept map (refer to the WIAT management standard).

Each issue should relate to one or more of the management objectives stated in section 3.2.

Give a concise statement of the strategy to achieve the desired outcome e.g.:

- link paths to community centre
- create mountain bike facility for young people
- upgrade paths for all-abilities
- create a more open woodland

Prescriptions for the operations to be carried out should be given in section 7 (Management proposals)

Opportunities for silvicultural improvements should be taken over the short, medium and long- term.

Outline silvicultural policy and management objectives.

Describe the silvicultural improvement to be employed for each woodland type summarised in the woodland improvement.

5.2 Management strategy to address with key issues and objectives			
Key Issue or Opportunity (from section 5.1)	Associated Management Objective (from section 3.2)	Strategy to achieve desired outcome	Priority (H/M/L)
Roman Road	2	Clearly mark the road site boundaries with wooden markers and inspect the vegetation annually to detail any clearance necessary. Provide interpretation of the site to recognise its importance.	H
LEPO SP stand	3	Perform zero tolerance thinning of Beech within Cpt 11j in 2023. Carry out monitoring annually to assess any Beech NN and pull by hand. Note any SP NN and monitor for any browsing damage by Roe deer or rabbits.	H
Policy Woodland Restoration	4 -5	Creation of a detailed specimen planting plan (2024-2028) of MC and policy species in sections of MB NN dominated by Beech and Sycamore thickets to include a more diverse species range, which is specified in Section 6.	M
Amenity Access	1	Access improvement, including drainage, access points for users and resurfacing for all ability users. Provision of interpretation at access points.	H
<p>Describe your strategy for silvicultural improvement below</p> <p>Silviculture within the LTFP will be governed by CCF which suits the woodlands dual role of amenity shelter and biodiversity. There will be no clearfell phases only ongoing LISS thinning to retain cover and seed for natural regeneration. Species selection will be targeted with exposure tolerance key to the North & West using Silver birch, Sessile oak, Aspen and Hawthorn along boundaries. Whilst in more sheltered basins and lee slopes a greater variety of policy species</p>			

including Sitka spruce, Douglas fir, European larch, Scots pine, Noble fir, Sessile oak, Sycamore, Common lime, Western Red Cedar, Western hemlock and Monterey cypress. These species along with others will be utilised to provide restoration of the policy woodland along with maintaining the amenity value, mirroring the initial establishment techniques employed in the woodland's original establishment. Maintenance of access and drainage will be critical to reduce waterlogging and associated winblow.

Additional detail (if required)

6 Management Proposals

Describe the operations that you will be undertaking in the woods in the relevant sections below. You may also wish to include a work programme as an appendix. You may use your own format or the suggested template given at Appendix 1. The approved plan may be made available to the public so any commercially sensitive financial information should be redacted from the document that you provide us.

6.1 Thinning and Felling

Low Impact Silvicultural Systems (LISS) will be used within both Caddam and Migvie to increase the structural diversity of the woodlands and their resilience to gales, pests and climate change. Therefore, a thinning plan has been shown on Map 5 covering the whole of the existing canopy cover. This will allow small scale thinning on a tree by tree basis and also allow reaction to windblown timber throughout the woodland, which is a common occurrence. There will be no clear felling within the period of the plan.

A dangerous tree survey is performed every six months targeting trees in close proximity to access tracks as part of the estates FSC certification monitoring requirements. Any trees and limbs deemed diseased or dangerous are removed by estate staff.

All trees to be thinned or removed are marked using STIHL ECO Marker Spray Paint by the estate forestry team. The majority of extraction will be to the Windyghoul track where an existing stacking area is situated, where a safe loading can take place away from formal access paths and traffic. No mechanised extraction is to take place within 20m of the Roman road and all access tracks if crossed will be protected using brash residue, which will be lifted following extraction.

Thinning will take place between the beginning of August and the beginning of March to avoid the breeding bird season and disturbance to Reds quirrels. In addition any drey sites will be left undisturbed following pre commencement walkover surveys.

6.2 Planting / Restocking

Small scale underplanting will take place as follows (Ref Map 2):

- Cpt 28 a (250 stems)
 - Heritage Apple: Ard Cairn Russet, Hoods Supreme, Seaton House, Tower of Glamis.
 - Heritage Pear: Gouden Knapp / Golden Knap, Seggie Den, Conference
 - General: Guelder rose, Hawthorn, Field Maple, Hazel, Sessile oak, Holly & Tibetan Cherry.

These species will add much needed structural diversity and encourage pollinators and bird species into Migvie, whilst also creating a unique feature for users.

- Cpt 10b2, 10c & a1 (300 stems)
 - European Larch, Dougals fir, Western Red Cedar, Noble fir, Cedar of Lebanon, Dunkled larch, Dawn Redwood, Sessile oak, Turkey oak.

All of the above are typical of designed policy woodlands and can be found throughout Scotland in similar woodlands. Poor form Beech and areas of thicket Beech NN will be cleared to allow spacemans to be planted using biodegradable tubes and treated with TRICO® to prevent grazing damage by deer. In addition Roe deer will be controlled by estate staff to allow NN in CCF thinning areas such as Cpt 11j, 11k and the wet woodland area in 11a1.

6.3 Access Improvements

Caddam & Migvie between them have over 3000m of existing access paths which if repaired and drained would be suitable for all user groups. Map 4 (Design Map) details all the access infrastructure, which has already had a walkover survey carried out in March 2022 which provided the following list remedial works:

- 10 self-closing Pedestrian gates
- 2 x Vehicle and Pedestrian Gates for Windy ghoul
- 3 x Car parking improvements
- 10 x replacement benches
- 2 x footbridge - 1 in Caddam and 1 in Migvie
- 1 x boardwalk section in Migvie
- Interpretation board at the Roman Road
- 813m of Access Track Restoration at Windy Ghoul
- 3006m of path restoration between both woods
- 2079m of fence strip and replacement

- 1044m of fence upgrade at Migvie
- Three Threshold interpretation signs for the three car parking areas

The paths are now derelict and require resurfacing and drainage as shown in Figure 1. Below:



Figure 1. Caddam Wood Path Erosion

The paths have now expanded with lots of muddy erosion delta's, which damages the ground flora and leads to soil erosion and blocking of drainage courses. This damage also leads to root compaction, which in turn leads to increased mechanical stress to veteran trees and encourages the inoculation of root systems with fungal pathogens.

6.4 Other Recreational Facilities

There are no other man-made recreational facilities at Caddam and Migvie Woods, however, the path network does link to other sites on the Kirriemuir path network including:

- Gairie Burn Walk
- The Den
- Loch Kinnordy Nature Reserve
- Hill of Kirriemuir
- Camera Obscura

6.5 Community Perception

The key outcome for existing users is improved all weather access, whilst also maintaining the natural woodland feel of Caddam and Migvie and not converting it into an urban woodland. Improved seating for physically impaired users at strategic points is also important, so at least 6 replacement benches and 4 new seats should be installed.

6.6 Safety and Security

Caddam and Migvie woods are relatively safe places to enjoy with good shelter from the elements year-round. However, there have been incidents of fly tipping on the derelict section of road on the Windy Ghoul, including a costly contamination incident in 2020, where engine oil was deposited on site, which required specialist removal. To stop this occurring the provision of two vehicle gates at either end of the private track will prevent such easy access to wood be fly tippers, whilst also still allowing pedestrian access. Finally, motorised vehicles are sometimes problematic within the woodlands, therefore, renewed boundary fencing and access point deterrents have also been included in the plan.

6.7 Maintenance

A maintenance program under the estates UKWAS FSC approved plan already covers Tree health and disease with 6 monthly walkover surveys performed along roadsides and pathways to determine and dangerous trees or limbs. Pathways and access points will be assessed in March each year following any damage by winter weather including windblow and drain blocking and ditch clearance. These works will then be carried out when suitable conditions allow but will accommodate any breeding bird and Red squirrel nest sites.

Pathways will be cleared of leaf mulch by a quad mounted roller brush periodically as necessary with all forestry ground damage caused by thinning repaired by excavator. All timber stacking sites will be cleared of soil and debris once extraction is complete. No bins are located on site and users are requested to take litter home and dispose of it suitably.

7 Monitoring and Review

We advise that you carry out an interim review of progress against the plan annually. You may need this information when you make a claim for Forestry Grant Scheme payments e.g. Sustainable Management of Forests (WIAT). A full review of the plan will be expected at the end of year five.

Appendix 2 – Thinning

This table shows the total management plan area as well as the thinning compartments proposed for management. The felling site/compartment in this table must be shown as the same on the thinning map(s). Please select method of displaying thinning regime:

Pre/Post stocking density

Pre/Post basal area

Volume to be removed

Total Plan Area:		59.86	hectares							
Thinning Compartment	Area (ha)	%	Species to be felled (one per row)	Age (Years)	Marking of Trees	No of Trees	Volume (m ³)	Pre	Thinning Details (per ha) Post	Total
11b	5.63		SS	54	Y	300	400			
11j	9.26		Be	2-40	N	2000	800			
11k	5.86		Be	2-40	Y	800	250			
28a	9.44		MB	20	Y	250	100			
10	7.07		MB	20	Y	100	50			
11a1, 11d1, 11f, 11h, 11c1, 11g1	18.57		MB	0-40	Y	500	150			
11c2	0.49		EL	54	Y	50	50			
35	2.4		MB	120	N/A	N/A	N/A			
Total Area	58.72					Total Volume m³	1800	Total to be removed:		