



Monkstown Wood

Management Plan 2016-2021

MANAGEMENT PLAN - CONTENTS PAGE

ITEM	Page No.
Introduction	
Plan review and updating	
Woodland Management Approach	
Summary	
1.0 Site details	
2.0 Site description	
2.1 Summary Description	
2.2 Extended Description	
3.0 Public access information	
3.1 Getting there	
3.2 Access / Walks	
4.0 Long term policy	
5.0 Key Features	
5.1 Informal Public Access	
5.2 Secondary Woodland	
5.3 Connecting People with woods & trees	
6.0 Work Programme	
Appendix 1: Compartment descriptions	
Appendix 2: Harvesting operations (20 years)	
Glossary	
MAPS	
Access	
Conservation Features	
Management	

THE WOODLAND TRUST

INTRODUCTION

The Trust's corporate aims and management approach guide the management of all the Trust's properties, and are described on Page 4. These determine basic management policies and methods, which apply to all sites unless specifically stated otherwise. Such policies include free public access; keeping local people informed of major proposed work; the retention of old trees and dead wood; and a desire for management to be as unobtrusive as possible. The Trust also has available Policy Statements covering a variety of woodland management issues.

The Trust's management plans are based on the identification of Key Features for the site and setting objectives for their management. A monitoring programme (not included in this plan) ensures that these objectives are met and any necessary management works are carried out.

Any legally confidential or sensitive species information about this site is not included in this version of the plan.

PLAN REVIEW AND UPDATING

The information presented in this Management plan is held in a database which is continuously being amended and updated on our website. Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations. Please either consult The Woodland Trust website www.woodlandtrust.org.uk or contact the Woodland Trust (wopsmail@woodlandtrust.org.uk) to confirm details of the current management programme.

There is a formal review of this plan every 5 years and a summary of monitoring results can be obtained on request.

WOODLAND MANAGEMENT APPROACH

The management of our woods is based on our charitable purposes, and is therefore focused on improving woodland biodiversity and increasing peoples' understanding and enjoyment of woodland. Our strategic aims are to:

- Protect native woods, trees and their wildlife for the future
- Work with others to create more native woodlands and places rich in trees
- Inspire everyone to enjoy and value woods and trees

All our sites have a management plan which is freely accessible via our website www.woodlandtrust.org.uk. Our woods are managed to the UK Woodland Assurance Standard (UKWAS) and are certified with the Forest Stewardship Council® (FSC®) under licence FSC-C009406 and through independent audit.

In addition to the guidelines below we have specific guidance and policies on issues of woodland management which we review and update from time to time.

We recognise that all woods are different and that the management of our sites should also reflect their local landscape and where appropriate support local projects and initiatives. Guidelines like these provide a necessary overarching framework to guide the management of our sites but such management also requires decisions based on local circumstances and our Site Manager's intimate knowledge of each site.

The following guidelines help to direct our woodland management:

1. Our woods are managed to maintain their intrinsic key features of value and to reflect those of the surrounding landscape. We intervene when there is evidence that it is necessary to maintain or improve biodiversity and to further the development of more resilient woods and landscapes.
2. We establish new native woodland using both natural regeneration and tree planting, but largely the latter, particularly when there are opportunities for involving people.
3. We provide free public access to woods for quiet, informal recreation and our woods are managed to make them accessible, welcoming and safe.
4. The long term vision for our non-native plantations on ancient woodland sites is to restore them to predominantly native species composition and semi-natural structure, a vision that equally applies to our secondary woods.
5. Existing semi-natural open-ground and freshwater habitats are restored and maintained wherever their management can be sustained and new open ground habitats created where appropriate.
6. The heritage and cultural value of sites is taken into account in our management and, in particular, our ancient trees are retained for as long as possible.
7. Woods can offer the potential to generate income both from the sustainable harvesting of wood products and the delivery of other services. We will therefore consider the potential to generate income from our estate to help support our aims.
8. We work with neighbours, local people, organisations and other stakeholders in developing the management of our woods. We recognise the benefits of local community woodland ownership and management. Where appropriate we allow our woods to be used to support local woodland, conservation, education and access initiatives.
9. We use and offer the estate where appropriate, for the purpose of demonstration, evidence gathering and research associated with the conservation, recreational and sustainable management of woodlands. In particular we will develop and maintain a network of long-term monitoring sites across the estate.
10. Any activities we undertake will conform to sustainable forest management principles, be appropriate for the site and will be balanced with our primary objectives of enhancing the biodiversity and recreational value of our woods and the wider landscapes.

SUMMARY

This public management plan briefly describes the site, specifically mentions information on public access, sets out the long term policy and lists the Key Features which drive management actions. The Key Features are specific to this site - their significance is outlined together with their long (50 year+) and short (5 year) term objectives. The short term objectives are complemented by a detailed Work Programme for the period of this management plan. Detailed compartment descriptions are listed in the appendices which include any major management constraints and designations. A short glossary of technical terms is at the end. The Key Features and general woodland condition of this site are subject to a formal monitoring programme which is maintained in a central database. A summary of monitoring results is available on request.

1.0 SITE DETAILS

Site name:	Monkstown Wood
Location:	Newtownabbey
Grid reference:	J345839, OS 1:50,000 Sheet No. 15
Area:	8.90 hectares (21.99 acres)
Designations:	Local Nature Reserve, Public Open Space

2.0 SITE DESCRIPTION

2.1 Summary Description

Monkstown Wood was designated a Local Nature Reserve in 2007 and provides a calm, green haven in a busy urban area in Newtownabbey, Northern Ireland.

Thanks to funding from Biffa Award and Antrim and Newtownabbey Borough Council, this little gem is undergoing a facelift. New and improved access, pathways and way-markers will lead you through this quiet corner of nature. As you wander, look out for four life-like oak sculptures and take in the beauty of the neighbouring river - the stunning Three Mile Water.

2.2 Extended Description

The parking and entrance to the site is off the Monkstown Road, past Nortel, off the Doagh Road in Newtownabbey District. It has a brown tourist sign at the entrance way. This site consists of 7 large fields leased by the Housing Executive in late 1999, for a period of 999 years. Sandwiched between industrial units and housing with the 3 Mile water river along the housing side of the northern boundary.

The fields were grazed until spring 2000 when we planted most of compartment 1a of fields with a mix of oak, ash, rowan, alder, wild cherry and scots pine. The eastern part still holds remnants of a farm, water mill & its race, yet all are now knocked down and the mill race has grown over and filled in a small section of the brick work can still be seen adjacent to the water pipes. The mill race channel remains as a boundary to the east and the old metal pipes surface at the weir on the riverside to the centre north. Also an underground mains supply pipe from Woodburn Reservoir cuts across the river towards Belfast; this would be a main feeder for the water supply of the city.

The Newtownabbey Way providing walking and cycle routes runs along the southern boundary and compartment 1a has paths all the way through which allow vehicle access, if required, via locked gates. There are kissing gates at 2 points along the track way linking into the gravel woodland paths. A series of wooden sculptures can be found at the path junction within the new wood along with a view to the Knockenagh Monument.

Mature wood covers half the site, most of it beside the river is ash and sycamore with 1ha of thorn thickets where ash is emerging on the eastern boundary.

The site is well used by walkers and fishermen (as of July 2002) and forms a natural buffer between the housing and industrial units. The fishermen have worked for many years on improving fish stocks, constructing fish ladders and revetments on the river to encourage fish numbers, yet the regular pollution spills up river diminish this valiant work. There is a small meandering river along the northern boundary - called the Three Mile Water, running from Mossley development areas down to the Belfast Lough. The site also has a number of 2m high wooden leaf sculptures at the entrance way and a small gravel car park off the Monkstown road.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

By bus

For information about bus stops and timetables, visit:

Translink: translink.co.uk

Ulsterbus: translink.co.uk/Services/Ulsterbus-Service-Page

Traveline: traveline.co.uk or call 0871 200 2233

By train

The nearest railway station is Mossley West, about 0.8 km (half a mile) from Monkstown Wood.

By car

From Belfast, head north onto the M2 until it becomes the M5. Follow the M5 to Newtownabbey. At the roundabout, turn left onto the A2 (Shore Road), before turning right onto the B59 (Doagh Road). Continue on Doagh Road, and you will see the wood on the right-hand side.

There is a small gravel car park off the Monkstown road (look out for the large leaf sculptures). The wood can be accessed by several openings and gates from the surrounding area/laneway; in particular a kissing gate from the car park and two gates off the track to the south of the site and next to the industrial estate and Hurtle Tout Lane. Each of these is linked to Doagh Road along the site's southern edge.

3.2 Access / Walks

You can wander into the wood through one of four entrances, including a kissing gate and two openings next to the industrial estate and Hurtle Tout Lane. Each of these is linked to Doagh Road along the site's southern edge.

The car park is off Monkstown Road, and you can find it thanks to the wooden leaf sculptures. You will also see two wooden seats here, surrounded by buttercups, just, before you head through the kissing gate and into the trees.

The bridge spanning the Three Mile Water is part of the Newtownabbey Way, which connects Belfast Lough in the east to Mossley Mill in the west. It is also part of the National Cycle Network (route 93), which follows the southern edge of the wood. The path over the bridge leads to Monkstown, while the path to the right leads to the wooden sculptures.

Though there is no circular trail around the woodland, there is a 2km permissive path and a bridleway running through it, and by following them, you can take in the sights and sounds of this urban oasis. The path is well managed and is relatively flat and easily accessible for people of a range of abilities.

4.0 LONG TERM POLICY

It is intended that a minimum intervention policy will be followed, allowing the continued development of a broadleaved high forest, and to increase enjoyment of the community wood.

An option to thin or further manage the planting will be retained if it was deemed necessary for structural diversity, ash dieback mitigation, biodiversity or access aims. The mature hedgerows will merge into the secondary woodland and planting in the long term.

In line with the Woodland Trust species papers on beech and sycamore, the density of regeneration of non-natives will be assessed at 10 year intervals, to assess the dominance/ frequency of sycamore throughout the wood and in particular along the river, and any possible effects on the ground flora. Selective control of the non-native regeneration could be undertaken if areas of dense regeneration occur, only if there is a significantly detrimental effect on the ground flora. It is unlikely that the dominance of sycamore will change significantly in the future, as these trees are some of the oldest on site, some in excess of 100 years and the regeneration to date and effect on the ground flora is very limited.

Where opportunities arise through woodland creation and or partnerships with Antrim and Newtownabbey Borough Council ANBC, Monkstown Community Association and Belfast Hills Partnership BHP we will seek where possible to connect the woodland and its access with other adjacent habitats for a more resilient future landscape.

The intention is to prevent motorbike access by gates and barriers. Access to the woodlands will be maintained at the current levels, via the existing Newtownabbey Way and single permissive route.

5.0 KEY FEATURES

The Key Features of the site are identified and described below. They encapsulate what is important about the site. The short and long-term objectives are stated and any management necessary to maintain and improve the Key Feature.

5.1 Informal Public Access

Description

Monkstown Wood is a Local Nature Reserve and was planted in 2000 and has links with the industrial past of the area. The original mill race still runs along the Eastern boundary although the mill buildings have been long demolished. The car park and gravel paths are used mostly by locals and fishermen with the main groups being the Monkstown Forum and 3 Mile Water Conservation Committee who act as wardens on the 3 Mile water and restock it with trout and salmon.

Our access connection is the 1km river frontage and its small pockets of wetlands fall to the fishing group to manage i.e. the weir, fish ladder and a small pond on our site. The Newtownabbey Way continues to be the main access route and used point for locals, dog walkers and visitors.

Interpretation includes panels and 4 x 2 metre high sculptures by Owen Crawford dotted along the paths.

Significance

The river access is important for local groups and the public to enjoy the river side visuals and to manage the area. Given that our site covers over 1km of the river it has a role to play in protecting fish and invertebrate stocks. These duties would be carried out by the fishing group.

The access facilities provide the opportunity to “increase people’s awareness and enjoyment of woodland”, one of the Woodland Trusts key objectives. The area provides a woodland experience for local people in an area classified under ANBC and Department of Social Development as an “area at risk.” The postcode for this area BT37 contains households of 11,121.

Also, as this was created as a Woods On Your Doorstep site, it will be important to retain informal public access facilities within the site.

The woodland can also provide a sense of place, quiet reflection, health and well being for local residents and visitors in a largely urban environment.

Opportunities & Constraints

Opportunity

Opportunity to enhance access with the planting of 5 ha.

Further to develop the access along the riverside, to link into the Newtownabbey Way cycle path, the neighbouring estates and to monitor fish stocks along the riverside strip.

Opportunity to continue with local engagement through the Monkstown Community Association and local primary School.

Opportunity to develop Friends of group.

Constraints

Evidence to show the site is still being used by scramblers and mini motos.

Suspected previous use by those wanting to hunt foxes and or badgers with dogs.

Factors Causing Change

Tree planting will improve the public perception of the site and encourage ownership Possible links to Newtownabbey Way will increase usage of the wood

Climate change, tree disease

Long term Objective (50 years+)

To establish a mixed woodland/high forest with the existing trees, hedgerows and new planting.

To look for opportunities for connecting walkways or urban green ways where possible and partnerships with local groups and or volunteers especially through ANBC's Newtownabbey Way.

For the site where possible to be managed locally as a community woodland resource as part of a community woodland network.

To establish a Friends of group and volunteer opportunities

Short term management Objectives for the plan period (5 years)

Funding has been granted to upgrade this site in 2018 and the main objectives are:

Upgrade paths and entrance

Upgrade signage including a code of conduct sign

Create new access paths and entrance points to connect to adjacent meadow and Newtownabbey Way

Install new seating

Planting event to engage local schools

Public Easter trail in March 2018 to target families in area

Work with local community on increasing volunteer opportunities

5.2 Secondary Woodland

Description

Ash dominated secondary woodland has developed since the 1800s along the riverside & is regenerating with an ash under storey; plus new planting of the 5ha fields will form nice uneven age structured woodland.

Significance

The river side woodland habitat is important as a landscape feature, as bank erosion protection, for the insect food chain for fish, and in expanding the secondary woodland. In the BAP, Rivers are a priority habitat yet this one is on the edge of urban areas with many pressures/pollutants; thus it is not a prime habitat.

Opportunities & Constraints

The opportunity is to expand the ash woods into the fields with new native planting, whilst expanding the species mix from the hedges to form a secondary woodland on the whole site. The poor river quality prevents it from being a priority habitat.

Factors Causing Change

Other - New planting to secondary woodland on whole site, Removal of invasive species, including giant hogweed

Long term Objective (50 years+)

Retain the 3 ha of river woodland copses of native species linking into the 5ha planting area. Allow for natural regeneration into the open areas. Hedges will merge into woodland. No invasive species on site. Where possible look for potential planting areas and linking this habitat with other existing woodland and open habitat within the area.

Short term management Objectives for the plan period (5 years)

Maintain the establishment of newly planted area (with minimum intervention) to create secondary high forest. Retain the 3ha of woodland copses with the option for minimal intervention if needed to provide species and structural diversity on the site. Monitor against invasive species especially on the riverside eg. Hogweed. And eradicate as required. To diversify the new planting where possible through management to have begun a program of inter-planting in preparation for Ash Dieback. To continue to monitor for new disease threats, species biodiversity and tree health through the use of volunteers.

5.3 Connecting People with woods & trees

Description

Monkstown Wood lies off the Doagh Road. There are 6 entrances two with kissing gates, the rest are open access. Some of these fall off the Newtownabbey Way - a 6km cycle and walking network starting at Corrs Corner Hotel ending at Jordanstown loughshore. Two with a management gate and a small stoned car park with double height barriers. The car park is open to the general public, it is big enough to take a small minibus or four/five cars. There are approx. 2km of mostly wide, rough stoney to muddy grassy paths with one steep section. One large suspension bridge and one metal bridge crossing the Three Mile Water River. There are currently no information boards on this site. The site also has a sculpture trail with a community theme.

Significance

Cultural and historical heritage connecting to the linen and paper mills formerly found in this area of Antrim/Newtownabbey. As well as the surrounding urban sprawl/wider rural landscape e.g. old farm hedgerows still existing on the site.

Remnants of long establish woodland and significant older trees along the Three Mile Water River - the river has a history of management by the local fishing group - Three Mile Water Conservation and Angling Association (TMWCAA) for both biodiversity and wildlife/fishing conservation.

Opportunities & Constraints

Opportunities;

- To continue to develop the "friends of" relationship with TMWCAA with woodland management techniques and wildlife recording.
- Future brand moments e.g. summer picnics, dog walking events, easter / bluebell trails.
- To improve or add to the sculpture trail e.g. siting of more nest/bat boxes
- Partnership events with Antrim and Newtownabbey Council, Monkstown Community organisations, Belfast Hills, local scouts and TMWCAA.
- Woodland creation
- To re-engage with local primary schools in the area
- Develop interpretation plan

Constraints;

- Funding
- some sections of site are steep and not completely accessible to all users
- some recent anti-social behaviour on site
- History of illegal hunting on site

Factors Causing Change

Climate change, some burning recently on site and anti-social behaviour, history of illegal hunting, tree disease.

Long term Objective (50 years+)

A wildlife rich and structurally diverse woodland with open rides and glades alongside managed pathways leading you through the site to various feature points e.g. the river. A connecting urban wildlife corridor through the Belfast Hills fringe, Three Mile Water and wider rural antrim countryside. A growing local volunteer base/ and or friends of group to help manage the woodland for people and wildlife. Yearly brand moments, public awareness and engagement events around the importance and connection of woodland to local residents. People of Monkstown and Newtownabbey and further afield know the site and feel confident and assured to protect and stand up for the area as an essential natural asset.

Short term management Objectives for the plan period (5 years)

To survey site access based on the "paths for all" guidelines to determine any improvements that can be made to increase user ability and variety and complete welcome program for site by 2018 end. To work alongside Antrim and Newtownabbey Council, Belfast Hills, TMWCAA and local community associations to increase volunteer opportunities for the area. To continue to support the local primary schools in the area around their forest schools initiative, tree packs, events and green tree schools award.

6.0 WORK PROGRAMME

Year	Type of Work	Description	Due By
2018	PE - Interpretation & Signage	Roofed unit A1 with A2 noticeboard and oak posts	18/03/18
2018	PE - Interpretation & Signage	Roofed unit A1 with A2 noticeboard and oak posts	18/03/18
2018	AW - Management Access Capital	Design and construction of 500m of riverside path	25/03/18
2018	AW - Management Access Capital	Access works - walls, gates, 6x entrances, move sculpture, rocks, car park, etc.	25/03/18
2018	PE - Interpretation & Signage	Installation of waymarkers	25/03/18
2018	PE - Interpretation & Signage	Installation of signage	25/03/18
2018	AW - Management Access Capital	Design and construction of 500m of riverside path	25/03/18
2018	AW - Management Access Capital	Access works - walls, gates, 6x entrances, move sculpture, rocks, car park, etc.	25/03/18
2018	PE - Interpretation & Signage	Installation of waymarkers	25/03/18
2018	PE - Interpretation & Signage	Installation of signage	25/03/18
2018	PE - Interpretation & Signage	1 x Combined noticeboard and panel A1	31/03/18
2018	PE - Interpretation & Signage	1 x Combined noticeboard and panel A1	31/03/18
2018	AW - Visitor Access Maintenance	Additional drainage works and path stone	22/04/18
2018	WMM - Ride Management	Additional tree thinning along path rides	22/04/18
2018	PE - Events - General	Easter trail event	22/04/18
2018	PE - Events - Schools	Monkstown school planting event	22/04/18
2018	PE - Events - General	c.f. Easter trail event	22/04/18
2018	AW - Visitor Access Maintenance	1st of 5 visitor access - paths, litter, car park, entrances, signage, seats and sculptures etc.	24/04/18
2018	PE - Interpretation & Signage	Payment for consent to display - VIP sign	10/06/18
2018	AW - Visitor Access Maintenance	2nd of 5 Visitor access - paths, litter, car park, entrances, signage, seats and sculptures etc.	12/06/18

2018	PE - Interpretation & Signage	Q 2 - Bespoke code of conduct illustrations (Monkstown)	29/06/18
2018	PE - Interpretation & Signage	Q 2 - Bespoke code of conduct illustrations (Monkstown)	29/06/18
2018	AW - Visitor Access Maintenance	3rd of 5 Visitor access - paths, litter, car park, entrances, signage, seats and sculptures etc.	17/07/18
2018	PE - Interpretation & Signage	Removal of damaged signs	31/07/18
2018	SL - Tree Safety Works - Zone B	Removal of trees after storm over path	31/07/18
2018	AW - Visitor Access Maintenance	4th of 5 Visitor access - paths, litter, car park, entrances, signage, seats and sculptures etc	28/08/18
2018	LC - Fly Tipping	Collect council steel posts in car park	26/09/18
2018	AW - Visitor Access Maintenance	5th of 5 Visitor access - paths, litter, car park, entrances, signage, seats and sculptures etc	02/10/18
2018	WMM - General Site Management	Cut boundary roadside hedge - 180m	02/11/18
2019	PE - Interpretation & Signage	Install code of conduct sign - car park management gate	22/03/19
2019	AW - Visitor Access Infrastructure	Sand grafetti off seats and restrain	22/03/19
2019	PE - Interpretation & Signage	Fix lockable doors on interpretation panels	22/03/19
2019	AW - Visitor Access Maintenance	1st of 5 - Path cutting, litter, signs, entrances, steps, bridges, features, seats	15/04/19
2019	PE - Events - Contractor/Provider	Easter trail family event	27/04/19
2019	PE - Interpretation & Signage	x1 Roadside Welcome Sign (metal box construction)	30/04/19
2019	PE - Events - Contractor/Provider	c.f. Easter trail family event	29/05/19
2019	AW - Visitor Access Maintenance	2nd of 5 - Path cutting, litter, signs, entrances, steps, bridges, features, seats	17/06/19
2019	PE - Interpretation & Signage	Installation of x1 Welcome Sign (including exit panel) car park	28/06/19
2019	AW - Visitor Access Maintenance	3rd of 5 - Path cutting, litter, signs, entrances, steps, bridges, features, seats	29/07/19
2019	PE - Interpretation & Signage	Replacement A1 combined notice board frame & panel New 'You Are Here' (no oak posts required)	30/07/19

2019	AW - Visitor Access Maintenance	4th of 5 - Path cutting, litter, signs, entrances, steps, bridges, features, seats	30/08/19
2019	AW - Visitor Access Maintenance	5th of 5 - Path cutting, litter, signs, entrances, steps, bridges, features, seats	30/09/19
2019	AW - Visitor Access Maintenance	5 Visitor access visits - paths, litter, car park, entrances, signage, seats and sculptures etc	02/10/19
2019	PE - Interpretation & Signage	Design work for A1 panel for combined noticeboard sign New 'You Are Here' and other small changes	30/10/19
2019	PE - Interpretation & Signage	c.f. Design work for A1 panel for combined noticeboard sign New 'You Are Here' and other small changes	30/10/19
2019	WMM - General Site Management	Cut boundary roadside hedge - face and top	02/11/19
2020	AW - Visitor Access Maintenance	1st of 5 visitor access - paths, litter, car park, entrances, signage, seats and sculptures etc.	24/04/20
2020	PE - Events - Contractor/Provider	Easter trail family event	27/04/20
2020	AW - Visitor Access Maintenance	2nd of 5 Visitor access - paths, litter, car park, entrances, signage, seats and sculptures etc.	12/06/20
2020	AW - Visitor Access Maintenance	3rd of 5 Visitor access - paths, litter, car park, entrances, signage, seats and sculptures etc.	17/07/20
2020	AW - Visitor Access Maintenance	4th of 5 Visitor access - paths, litter, car park, entrances, signage, seats and sculptures etc	28/08/20
2020	AW - Visitor Access Maintenance	5th of 5 Visitor access - paths, litter, car park, entrances, signage, seats and sculptures etc	02/10/20
2020	WMM - General Site Management	Cut boundary roadside hedge - face and top	02/11/20

APPENDIX 1: COMPARTMENT DESCRIPTIONS

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Key Features Present	Designations
1a	6.00	Alder species	2000	High forest		Informal Public Access	Other
<p>This compartment started off as five large rush and rough grassland fields - with mature hedgerows around all of them. Some of the hedges have spread into the fields and many mature ash trees exist in pockets near the riverside ash woods. These were all grazed semi improved (NIHE) fields, until late 1999.</p>							
1b	3.00	Ash	1930	High forest	Mostly wet ground/exposed site, No/poor vehicular access within the site	Informal Public Access	
<p>A riverside corridor with some flood levees along the Three Mile Water with copses and wet patches up to thorn thickets to the east. The mudstones banks tend to erode easily and only the weir, from an old watermill, remains undisturbed. Steep banks have a variety of hardwood species, both planted and natural regeneration, which has created a mixed, multi age-structured, riverside woodland over the last 100 years. Mature ash dominates the other broadleaves, intermingled with mature hedges, wetland and riversides which floods in winter</p>							

Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2017	1a	Ride edge Coppice	1.00	40	40

GLOSSARY

Ancient Woodland

Ancient woods are defined as those where there has been continuous woodland cover since at least 1600 AD. In Scotland ancient woods are defined strictly as sites shown as semi-natural woodland on the 'Roy' maps (a military survey carried out in 1750 AD, which is the best source of historical map evidence) and as woodland all subsequent maps. However, they have been combined with long-established woods of semi-natural origin (originating from between 1750 and 1860) into a single category of Ancient Semi-Natural Woodland to take account of uncertainties in their identification. Ancient woods include Ancient Semi-Natural Woodland and plantations on Ancient Woodland Sites (see below). May support many species that are only found in ancient woodland.

Ancient Semi - Natural Woodland

Stands in ancient woods defined as those consisting predominantly of native trees and shrubs that have not obviously been planted, which have arisen from natural regeneration or coppice regrowth.

Ancient Woodland Site

Stands in ancient woods that have been converted to plantations, of coniferous, broadleaved or mixed species, usually for timber production, including plantations of native species planted so closely together that any semi-natural elements of the understorey have been suppressed.

Beating Up

Replacing any newly planted trees that have died in the first few years after planting.

Broadleaf

A tree having broad leaves (such as oak) rather than needles found on conifers (such as Scots pine).

Canopy

The uppermost layer of vegetation in a woodland, or the upper foliage and branches of an individual tree.

Clearfell

Felling of all trees within a defined area.

Compartment

Permanent management division of a woodland, usually defined on site by permanent features such as roads. See Sub-compartments.

Conifer

A tree having needles, rather than broadleaves, and typically bearing cones.

Continuous Cover forestry

A term used for managing woods to ensure that there are groups or individual trees of different ages scattered over the whole wood and that some mature tree cover is always maintained. Management is by repeated thinning and no large areas are ever completely felled all at once.

Coppice

Trees which are cut back to ground levels at regular intervals (3-25 years).

Exotic (non-native) Species

Species originating from other countries (or other parts of the UK) that have been introduced by humans, deliberately or accidentally.

Field Layer

Layer of small, non-woody herbaceous plants such as bluebells.

Group Fell

The felling of a small group of trees, often to promote natural regeneration or allow planting.

Long Term Retention

Discrete groups of trees (or in some cases single trees) that are retained significantly past their economic felling age. Operations may still be carried out within them and thinning is often necessary to maintain stability.

Minimum Intervention

Areas where no operations (such as thinning) will take place other than to protect public safety or possibly to control invasive exotic species.

Mixed Woodland

Woodland made up of broadleaved and coniferous trees.

National vegetation classification (NVC)

A classification scheme that allows an area of vegetation to be assigned to the standardised type that best matches the combination of plant species that it contains. All woodlands in the UK can be described as being one of 18 main woodland types (W1 - W18), which principally reflect soil and climatic conditions. For example, Upland Oakwoods are type W11, and normally occur on well drained infertile soils in the cooler and wetter north and west of Britain. Each main type can be subdivided into numerous subtypes. Most real woods contain more than one type or sub-type and inevitably some woods are intermediate in character and can't be properly described by any sub type.

Native Species

Species that arrived in Britain without human assistance.

Natural Regeneration

Naturally grown trees from seeds falling from mature trees. Also regeneration from coppicing and suckering.

Origin & Provenance

The provenance of a tree or seed is the place where seed was collected to grow the tree or plant. The origin is the geographical location within the natural range of a species from where seeds/tree originally derives. Thus an acorn collected from a Turkey oak in Edinburgh would have an Edinburgh provenance and a southern European origin.

Re-Stocking

Re-planting an area of woodland, after it has been felled.

Shrub Layer

Formed by woody plants 1-10m tall.

Silviculture

The growing and care of trees in woodlands.

Stand

Trees of one type or species, grouped together within a woodland.

Sub-Compartment

Temporary management division of a compartment, which may change between management plan periods.

Thinning

The felling of a proportion of individual trees within a given area. The remaining trees grow to fill in the space created.

Tubex or Grow or Tuley Tubes

Tubes placed over newly planted trees or natural regeneration that promote growth and provide protection from animals such as rabbits and deer.

Weeding

The control of vegetation immediately around newly planted trees or natural regeneration to promote tree growth until they become established. Either by hand cutting or with carefully selected weed killers such as glyphosate.

Windblow/Windthrow

Trees or groups of trees blown over (usually uprooted) by strong winds and gales.