



Keel Wood

Management Plan 2018-2023

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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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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:	Keel Wood
Location:	Ballymena
Grid reference:	D115029, OS 1:50,000 Sheet No. 9
Area:	7.18 hectares (17.74 acres)
Designations:	

2.0 SITE DESCRIPTION

2.1 Summary Description

One of 50 'Woods on Your Doorstep' sites in Northern Ireland. The local community helped with the design and planting in early 2000. The wood borders both sides of the River Braid and is a haven for wildlife and visitors alike. Well maintained pathways

2.2 Extended Description

This is a large, high profile site close to the main shopping centre, Cineplex and Leisure Centre in Ballymena. The site borders both sides of the River Braid and is readily accessible by local people from the town and adjoining Ballykeel housing estates. There are 2 narrow tarmac paths through Keel Wood and one just outside the northern boundary giving good access to much of the site. Ballymena Borough Council (BBC) have retained the main path (between cpts 1 and 2) in their ownership and upgraded it to tarmac with lights. It is an important through route from the Ballykeel Housing Estates to the shopping centre in Ballymena.

Over the next 10 years, BBC intends one of the routes through this site to form part of the riverside path they hope to connect together from Broughshane via the Millennium Park and Ballymena through to Cullybackey. This would cover a length of 10 miles. More locally, there is the opportunity for circular walks via the 2 bridges over the river and then into the wider countryside to Ecos Park. Some of the paths also give excellent views of the river corridor.

Next to the river the land is low lying, flat, wet and subject to flooding. As you move away, it has areas which are much higher, and hence drier, a significant proportion of which is steep. The vegetation varies from sections of wet unimproved meadow grassland (flood plain), open grassland with natural regeneration, semi mature willow and poplar, an area of mature beech, sycamore, lime and oak woodland and also a stretch of existing hedging. The variation within the site adds to the attractiveness of the area both for wildlife and for visitors.

Keel Wood is one of the 50 Woods on your Doorstep (WOYD) sites in Northern Ireland. The development and first 5 years maintenance of the WOYD sites were 50% funded by the Millennium Commission. Each of these WOYD sites has a feature created to mark and celebrate the Millennium. At Keel Wood this is a sculpture designed by teenagers from across the community. It was created as part of the Groundwork NI Youth Vision project and represents a large tree with intertwining branches pointing in different directions highlighting local areas including Keel Wood. It stands approx 5m high and is located outside of the Ecos Centre, approx 1 mile away.

In 1999, the site design was drawn up in consultation with Ballykeel residents, Ballykeel Primary School, Mid Antrim Conservation and Biodiversity Action Group and the Ballymena District Partnership. In early 2000 the site was planted with the help of local people and organisations who helped to design the site. Trees and shrubs in single species groups of various sizes and shapes were planted. Alder and birch were planted in the lower lying areas but a considerable percentage of ground was left open due to its value for public access, wildlife and landscape. The amount of open ground within the planted areas themselves is likely to increase while the newly planted trees are becoming established as all the trees that do not survive the first few years will not necessarily be replaced.

The site has a variety of mineral type soils ranging from artificial landfill to sandy loams. There is a considerable litter problem, with the majority blowing off adjacent commercial complexes.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

Access is available for pedestrians and cyclists, plus many less abled access users such as people with pushchairs and even the more able wheelchair users due to having 2 narrow tarmac paths crossing Keel Wood and another on the northern boundary directly adjacent and unseparated from the wood. There is no entrance furniture.

The site is readily accessible from the centre of Ballymena and from the Ballykeel housing estates via these paths. They are well used by people travelling from the estate to the shopping centre and town. Additionally there is ample car parking to service visitors from further afield.

3.2 Access / Walks

4.0 LONG TERM POLICY

The Trust's corporate objective of increasing new native woodland has been achieved by the planting of Keel Wood. It will be sustained by the ongoing management of the site as native broadleaved woodland with a range of incorporated habitats (i.e. hedging, ponds, wet grassland, scrub and established woodland). It is intended to encourage the site to become a self-sustaining high forest of mixed broadleaves with a coppice understorey, which will flourish in floodplain conditions.

As not all areas will have their vandalised young trees replaced in the initial years, the planted areas will have a more open nature in the short term than originally planned. This has associated benefits for wildlife and for internal landscape, and therefore should be seen as positive. In the medium term (15 to 30 years) some thinning may be required, depending on the level of vandalism and the amount of natural regeneration. Thinning will lead to an increase in the amount of coppice (as the cut stumps will regrow) between the thinned trees and hence will once more add to the wildlife value and visual diversity of the site.

In the long term, it is intended that the wood will self thin. The resulting deadwood will be left in place, where it is safe to do so. This management option has the added benefit that the minimal management access required fits appropriately with the limited management access available, as well as minimising compaction and rutting of flood plain soils.

Although the woodland is secondary (i.e. planted trees on previously unwooded ground), during thinning operations, any non native tree species should be removed in preference to native species as the latter have a higher long term value for wildlife.

Within this backdrop of minimal long-term intervention, there will be work carried out along path edges. There are 2 tarmac paths through Keel Wood and one directly adjacent to the northern boundary. The vegetation adjacent (i.e. within 3-5m) to these paths is to be managed to maintain a visually open appearance, an important feature in an urban woodland. It will be more pleasant for people visiting the woodland as well as adding diversity to the woodland as a whole.

The area of existing maturing secondary woodland (sub-cpt 3A) will be managed on a minimal intervention basis due to much of it being on a very steep slope, the limited management access available and the benefits brought by minimal intervention. This area is currently high forest with a coppice and shrubby understorey and it is intended that it continues like this into the long term. With the exception of tree safety work, the trees will be allowed to grow, senesce and die in situ. This will add to its current deadwood and general biodiversity value. No coppicing is envisaged due to the nature of the ground, the overhead canopy and the limited wildlife and public access benefit any coppicing could bring. Over time as the trees senesce, there will be the opportunity for further natural regeneration to take their place.

The open areas (1B, 2A, 3C) will be left to develop naturally, some of which will scrub over. These areas are all part of the flood plain, and although there would be some benefit in keeping them open, it is not a practical solution due to the urban nature and the wetness of the ground.

The Trust's corporate objective of increasing enjoyment of woodland will be achieved by maintaining

and encouraging community involvement at the site, maintaining the paths and entrances for public access and by using the site to educate the public about the wider work of the Trust. As the woodland grows, its visual interest will grow too. Additionally, its value for such activities such as bird watching and other aspects of the appreciation of natural beauty will also increase, especially due to the proximity of other wildlife habitats such as the River Braid and Ecos Park.

As the wood develops over the years, its importance for people and wildlife will grow. It is hoped that the community of Ballymena will recognise Keel Wood as an area of special value within their urban environment.

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

2 pedestrian bridges link this site, which spans the River Braid. 3 tarmaced paths cross and run through the site linking it not only into the surrounding housing and urban amenities, but also into the wider countryside. This allows for people walking through the site specifically to go elsewhere (e.g. to the cinema or shopping centre) as well as for people simply walking locally or into the wider landscape.

Significance

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 visitors with an experience of native woodland. Additionally, this site provides routes that link into the wider landscape, both to the WT site Ecos Wood as part of the Ecos Park and also into the longer distance path due to run from Cullybackey to Broughshane, a distance of about 10miles.

Opportunities & Constraints

Opportunities.

Central location with easy accessibility to many people both locally and from further afield with ample local car parking.

Opportunity to encourage appropriate use of the site by the improvement of the path surfaces and the installation of some street lighting by Ballymena Borough Council.

Variety of habitats locally and also linked to others further afield in the wider countryside.

Constraints:

Vandalism.

Litter, especially blown in fast food wrappers and crisp bags are a problem.

Opportunity and constraint.

Wetness of ground.

Factors Causing Change

Fly Tipping, Vandalism, Changes in the water table level.

Long term Objective (50 years+)

Visitors will use the paths and open spaces, in all seasons, to visit different parts of Keel Wood and the surrounding countryside and urban areas for general exercise, to walk their dogs and as a through route to other areas.

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

Regular site maintenance to be carried out, including litter lifting and path edges.

The tarmac paths and low level lighting are maintained by Ballymena Borough Council (BBC) and the Roads Service.

Access to this site is to be linked into the wider landscape for a wider range of legitimate users through the implementation of the long distance route from Cullybackey to Broughshane.

5.2 New Native Woodland

Description

3 blocks of woodland were planted in 2000, covering a total of 2.8Ha. However, this forms only part of the new native woodland, which should be seen in the wider context of a larger habitat with open space both for wildlife and the public. The planting of this additional 2.8Ha of trees improves the local biodiversity by adding to the already present habitats of wetland, grassland, hedges, existing natural regeneration and existing woodland.

Significance

The aim of the Woods On Your Doorstep project was to create community woodland. This also fulfils one of the Woodland Trust's key aims to increase new native woodland. In addition, woodland creation will add a variety of habitats to the site and improve its biodiversity value, both on site and more generally in the wider landscape including the WT site Ecos Wood as part of Ecos Park, about 1 mile away.

Additionally, as only 7% of NI's landscape is still covered in woodland, with only 20% of this being deciduous, the creation of this new native woodland will help to re-establish one of NI's major natural habitats.

Opportunities & Constraints

Opportunities.

The development of native secondary woodland extending the existing woodland already present on site to create a larger woodland mosaic.

To improve the habitat locally for biodiversity especially considering the adjacent Ecos Park and River Braid.

Constraints.

Vandalism.

Opportunity and Constraint.

Wetness of ground.

Factors Causing Change

Fly Tipping, Vandalism

Long term Objective (50 years+)

To encourage the development of a self-sustaining native woodland with public access and as a good environment for local wildlife through its range of habitats on site and as part of an improved wildlife habitat in the wider countryside focused particularly along the river corridor.

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

The trees are now well established, but still can suffer from vandalism. It is not the intention to thin the woodland, but to allow it to self thin over time. The standing dead wood will be left in situ, where safe, however thinning and removal of deadwood may be required in the vicinity of the paths.

Thinning will be reviewed between 2015-2020.

5.3 Natural Secondary Woodland

Description

Existing woodland on a steep bank on the northern boundary of the site. It is comprised of beech, ash, sycamore, lime and oak with a number of shrub species. It has a wide age range incorporating natural regeneration through to trees with a diameter at breast height of over 80cm. There are a number of mature trees on the boundary with the adjacent housing and road network.

Significance

This established woodland adds diversity to Ecos Wood and provides seed trees which can provide seed for natural regeneration into the adjacent planted areas. Additionally, as only 7% of NI's landscape is still covered in woodland, with only 20% of this being deciduous, the management of this secondary woodland will help to re-establish one of NI's major natural habitats.

Opportunities & Constraints

Opportunity for natural regeneration both within this area and to adjacent areas.

Constraints:

Fly tipping

Vandalism

Wind blow of trees on wetter ground.

Factors Causing Change

Long term Objective (50 years+)

The continued presence of high forest with a coppice and shrubby understorey.

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

Carry out an tree safety every 2 years to ensure that the mature trees adjacent to the paths are safe.

6.0 WORK PROGRAMME

Year	Type of Work	Description	Due By
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APPENDIX 1: COMPARTMENT DESCRIPTIONS

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Key Features Present	Designations
1a	1.00	Ash	2000	High forest	People issues (+tve & -tve)	Informal Public Access	
<p>This is an area east of the river, with 1 Ha of trees planted in 2000 at 2250 trees /Ha, It is comprised of Pedunculate oak, ash, rowan, birch, elder and hazel.</p> <p>It is fairly flat being positioned on the top of the break in slope, east of cpt 1B. The exception to this is the southeast edge which is sloping and where there are considerable amounts of existing scrub.</p>							
1b	0.36	NULL		null	Mostly wet ground/exposed site	Informal Public Access	
<p>This is a partly low-lying wet area, left unplanted next to and east of the river running north-south. It is separated from the new planting in cpt 1A by a path which runs along the top of the break in the slope.</p>							
2a	0.60	NULL		null	Mostly wet ground/exposed site	Informal Public Access	
<p>This is an area of wet open ground and some developing scrub. It is south east of the river and west of cpt 2B.</p>							
2b	1.13	Ash	2000	High forest	People issues (+tve & -tve)	Informal Public Access	
<p>1Ha of this sub cpt was planted in 2000 at 2250 trees/Ha with pedunculate oak, ash, rowan, birch, scots pine, cherry, elder, hazel and crab apple.</p> <p>This sub-cpt is situated south of the river and east of the wet area known as cpt 2A. It has a path linking Ballykeel housing estates to Ecos Park. There is a maturing hedge along part of the southern boundary of this sub-cpt as well as developing woody scrub south of the path where the land is steeply sloping.</p>							
3a	1.17	Mixed broadleaves	1920	High forest	Very steep slope/cliff/quarry/mine shafts/sink holes etc	Informal Public Access	
<p>This is a block of existing woodland on a steep bank on the northern boundary of the site. It is comprised of beech, ash, sycamore, lime and oak with a number of shrub species. It has a wide age range incorporating natural regeneration through to trees with a diameter at breast height of over 80cm. There are a number of mature trees on the boundary with the adjacent housing and road network.</p>							

3b	2.20	Ash	2000	High forest	People issues (+tve & -tve)	Informal Public Access	
0.8Ha of this sub cpt was planted in 2000 at 2250 trees per hectare with pedunculate oak alder, ash, rowan, and birch. Some of this planting occurred on land where the existing scrub was cleared or thinned immediately prior to planting, some of which is regrowing as coppice.							
3c	0.78	NULL		null	Mostly wet ground/exposed site	Informal Public Access	
This is an area of low-lying wetland north of the river and east of sub cpts 3A and 3B. It has some woody scrub developing within it.							

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.