# Arrowthwaite (Plan period – 2024 to 2029)



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# Introduction to the Woodland Trust Estate

The Woodland Trust owns and cares for well over 1,250 sites covering almost 30,000 hectares (ha) across the UK. This includes more than 4,000ha of ancient semi-natural woodland and almost 4,000ha of non-native plantations on ancient woodland sites and we have created over 5,000ha of new native woodland. We also manage other valuable habitats such as flower-rich grasslands, heaths, ponds/lakes and moorland.

Our Vision is:

"A UK rich in native woods and trees for people and wildlife."

To realise all the environmental, social and economic benefits woods and trees bring to society, we:

- **Create Woodland** championing the need to hugely increase the UK's native woodland and trees.
- **Protect Woodland** fighting to defend native woodland, especially irreplaceable ancient woodland and veteran trees; there should be no loss of ancient woodland

• **Restore Woodland** – ensuring the sensitive restoration of all damaged ancient woodland and the re-creation of native wooded landscapes.

# Management of the Woodland Trust Estate

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<sup>®</sup> (FSC<sup>®</sup>) under licence FSC-C009406 and through independent audit.

The following principles provide an overarching framework to guide the management of all our sites but we recognise that all woods are different and that their management also needs to reflect their local landscape, history and where appropriate support local projects and initiatives.

1. Our woods are managed to maintain their intrinsic key features of value and to reflect those of the surrounding landscape. We intervene in our woods when there is evidence that it is necessary to maintain or improve biodiversity, safety and to further the development of more resilient woods and landscapes.

2. We establish new native woodland for all the positive reasons set out in our Conservation Principles, preferably using natural regeneration but often by planting trees, 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. Where possible, we pro-actively engage with people to help them appreciate the value of woods and trees.

4. The long term vision for all our ancient woodland sites is to restore them to predominantly native species composition and seminatural 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 natural and cultural heritage value of sites is taken into account in our management and in particular, our ancient trees are retained for as long as possible.

7. Land and woods can generate income both from the sustainable harvesting of wood products and the delivery of other services. We therefore consider the appropriateness of opportunities 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 encourage our woods to be used for 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. We maintain a network of sites for long-term monitoring and trials leading to reductions in plastics and pesticides.

10. Any activities we undertake are in line with our wider Conservation Principles, conform to sustainable forest management practices, are appropriate for the site and balanced with our primary objectives of enhancing the biodiversity and recreational value of our woods and the wider landscapes.

## The Public Management Plan

This public management plan describes the site and sets out the long term aims for our management and lists the Key Features which drive our management actions. The Key Features are specific to this site – their significance is outlined together with our long, 50 years and beyond, and our short, the next 5 years, term objectives for the management and enhancement of these features. The short term objectives are complemented by an outline Work Programme for the period of this management plan aimed at delivering our management aims.

Detailed compartment descriptions are listed in the appendices which include any major management constraints and designations. Any legally confidential or sensitive species information about this site is not included in this version of the plan.

There is a formal review of this plan every 5 years and we continually monitor our sites to assess the success of our management, therefore this printed version may quickly become out of date, particularly in relation to the planned work programme.

Please either consult The Woodland Trust website

www.woodlandtrust.org.uk

or contact the Woodland Trust

operations@woodlandtrust.org.uk

to confirm details of the current management programme.

A short glossary of technical terms can be found at the end of the plan.

### Location and Access

Location maps and directions for how to find and access our woods, including this site, can be found by using the following link to the Woodland Trust web-site which contains information on accessible woodlands across the UK

https://www.woodlandtrust.org.uk/visiting-woods/find-woods/

In Scotland access to our sites is in accordance with the Land Reform Act (of Scotland) 2003 and the Scottish Outdoor Access Code.

In England, Wales and NI, with the exception of designated Public Rights of Ways, all routes across our sites are permissive in nature and where we have specific access provision for horse riders and/or cyclists this will be noted in the management plan.

# The Management Plan

- 1. Site Details
- 2. Site Description
- 3. Long Term Policy
- 4. Key Features
  - 4.1 f1 Informal Public Access
  - 4.2 f2 Secondary Woodland
- 5. Work Programme

#### Appendix 1 : Compartment Descriptions

#### GLOSSARY

1.	SITE	DETAILS

# Arrowthwaite Location: Whitehaven Grid reference: NX970175 OS 1:50,000 Sheet No Sheet No No

#### 2. SITE DESCRIPTION

Arrowthwaite Wood (8.45ha), owned by Copeland Borough Council and leased to the Woodland Trust in 1995, is situated a about 1/2 mile south of Whitehaven Harbour between the Kells housing estate and Preston Street. The wood is on a steep eastern facing slope, with an average slope of 35 degrees with an elevation of 75m down to 25m. It is an intrinsic feature in the landscape, highly visible from the town and surrounding area. The underlying geology is Westphalian Coal Measures and it is exposed as shaley sandstone in the old quarry to the north of the site.

The history of Whitehaven for many years involved coal mining and mining took place at Arrowthwaite (previously the Manor of Arrowthwaite covered the present electoral wards of Kells and Sandwith) since the early 13th century. No relics remain of the pits within this site but three terraces of collier's cottages known, as 'New Houses' remain derelict next to and just outside the eastern boundary. On the first OS maps (1862) the area is shown as pasture land. However it is likely that the site was previously wooded as a charter of 1230 grants monks of Wetheral the right to take firewood in the territory of Arrowthwaite.

The north east of the wood is open, colonised by rough vegetation and scrub, and provides fine views over Whitehaven and the harbour. The wood was planted (P1949) involving many local schoolchildren and is oblong in shape. The major canopy species are Corsican pine (Pinus nigra), larch (Larix decidua), beech (Fagus sylvatica), Scots pine (Pinus sylvestris), oak (Quercus petrea), Norway maple (Acer platanoides), sycamore (Acer pseudoplatanus) and some Norway spruce (Picea abies) and silver birch (Betula pendula). The under storey is sparse with hawthorn (Crataegus monogyna), holly (Ilex aquifolium) and rowan (Sorbus aucuparia) very infrequent. The ground flora is indicative of the dense shade and with male fern (Dryopteris filix-mas) and bramble (Rubus fruticosus) being the major species with rosebay willowherb (Chamerion angustifolium), bracken (Pteridium aquilinum). However, in more open areas lesser celandine (Ranunculus ficaria), bluebells (Endymion non-scriptus), wood sage (Teucrium scrodonia) and bilberry (Vaccium myrtillus) can be found. In places there are localised patches of Japanese knotweed (Reynoutria japonica) and other garden plants as a result of dumping.

Several entrances, four to the west, one to the south, one to the north and two from the east give access to the wood. There are a number of public footpaths, including the main tarmac and Whitehaven brick path route that runs from the middle of the western boundary down through the woodland heading north and into the town centre. There is a bench just outside the wood at the top of the main path. The wood is in an urban location and is extensively used by local people for recreation and as a main through route into the town.

#### 3. LONG TERM POLICY

It is the Trust's objective to enhance the typical characteristics of this secondary woodland within the landscape and to maintain and improve the biodiversity of the whole woodland, as well as increase people's awareness and enjoyment of this habitat.

The Trust aims to maintain the overall high forest continuous-cover structure of Arrowthwaite as mixed woodland and whilst in the long term there will be retention of both native and non-native canopy species in the short term there will be intervention to move the canopy towards a more predominantly native species composition and improve conditions for regeneration. The aim will be to mimic natural processes, increase the dappled shade and produce a diverse woodland with a mix of mainly native trees and shrubs, improving conditions for urban access and improving ground light for regeneration and ground flora development. Species regeneration and development of the understorey will develop naturally. this process is likely to take some time and non-natives will remain for some time.

Control of Japanese knotweed will continue with the aim of eradication. Where possible and safe to do so both standing and fallen deadwood communities will be retained. The Trust will work alongside local agencies to protect the woodland from adverse practices and degradation due to the tipping of garden waste, pollution or vandalism. This should sustain the variety and character of this woodland and the landscape value of a continuously wooded system.

The Trust will maintain the informal access to the woodland on some 1,000m of public and permissive paths and the provision of welcome signs at the entrances. Public access will be encouraged with paths maintained and improved where necessary and defined views retained so that local users and visitors can continue to share in the wood's beauty, gain an understanding of the woodlands importance in the landscape and enjoy its position in the centre of Whitehaven and the views afforded out to the harbour. Public information and promotion of the woodland both nationally through the Trusts publications and directory's and locally will be enhanced where possible and posters will be used to inform and involve visitors with the woodland.

It is anticipated that this approach will safeguard and enhance the existing environmental value of the wood and maintain and enhance the level of public access in the woodland.

#### 4. KEY FEATURES

#### 4.1 f1 Informal Public Access

#### Description

Arrowthwaite Wood is well used by local people as a route into Whitehaven town centre but attracts relatively few visitors from further afield. There are 8 entrances to the wood with Woodland Trust signs to welcome visitors. The main Whitehaven brick path connects Old Arrowthwaite, where there is a square of amenity grassland managed by the Council through Cpt 1b to Albion Street. From this path there are a number of footpaths through the woodland, which in places can be steep, stepped and muddy in places. The internal landscape to the woodland is varied and interesting with spectacular views across Whitehaven town and towards the harbour. The 'New Houses', terraces are a historic site on the eastern boundary of the wood, but have fallen into disrepair.

#### Significance

The Cumbria Biodiversity Action Plan incorporates the action for landowners to give the public the opportunity to experience and appreciate wildlife. Arrowthwaite Wood provides informal recreation opportunities for local people and visitors to the surrounding countryside; this is one of the Woodland Trusts key outcomes and that also of the West Cumbria Woodland Strategy. The woods intrinsic qualities and historical links make it an important local resource and an informal educational resource for visitors and organised groups. Public appreciation of woodlands is good for the well being of those visiting the wood and ultimately, good for the wood. Arrowthwaite Wood is a significant feature within the town's landscape and affords spectacular views out to the harbour. At a national, regional and local level there are objectives to encourage local people to be involved with woodland and this is in an important location to facilitate use and enjoyment of woodland.

#### **Opportunities & Constraints**

The footpath network at Arrowthwaite is quite extensive and varied. Although limited by size, for a town woodland the area is quite large. The woodland attracts many local users and has a number of well-used routes taking people from the Loop Road directly into Whitehaven town. The surfaced route means the wood can be utilised throughout the seasons. In winter the ground conditions may become muddy and slippery on the unsurfaced routes and management is required to maintain these is a reasonable condition. There is an opportunity to inform the public of management practices and landscape and historical interest in the wood through posters and local leaflets. With all urban woodland it gives local people an opportunity to connect with nature on their own doorstep, which is surprisingly varied including red squirrels and buzzards. Vandalism and anti-social behaviour may deter some people from using the wood.

#### Factors Causing Change

Vandalism and fly tipping, wear and tear of all estate furniture (steps, minor bridges, revetments etc) and surfacing (brick paths, stoned surfaces). Natural succession of scrub to wood obscuring view. Fire.

#### Long term Objective (50 years+)

The Trust will maintain the informal access to the woodland and work with the County Council to maintain standards on the public footpaths. Welcome signs will be maintained at all entrances. Public access will be encouraged with paths, steps and benches improved and maintained so that visitors can continue to enjoy the woodland and its intrinsic features. Viewpoints out to the harbour from the bench will be maintained. Public information and promotion of the woodland both nationally through the Trusts publications and directory's and locally through will be enhanced where possible and posters will be used to inform and involve visitors with the woodland.

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

Maintain the entrances (8) and path network of 1,000m three times annually to the Woodland Trust Management Specifications working with the local Council where they maintain responsibilities for public right of way path surfaces and boundaries. Undertake regular safety inspections at defined intervals, ensuring the safety fencing round the quarry is intact. Clear litter and garden waste as necessary and where possible (visit frequency is currently monthly). Undertake regular maintenance (once each plan period) to keep vegetation down and retain access. Undertake boundary inspections once during each plan period. Undertake a review of entrance facilities and any requirements for improvement once during each plan period.

#### 4.2 f2 Secondary Woodland

#### Description

Arrowthwaite Wood (8.45ha) is on a steep eastern facing slope, with an average slope of 35% with an elevation of 75m down to 25m and is an intrinsic feature in the landscape, highly visible from the town and surrounding area. The underlying geology is Westphalian Coal Measures and it is exposed as shaley sandstone in the old quarry to the north of the site. This mixed conifer and broadleaved wood was planted (P1949) the major canopy species are Corsican pine, European larch, beech, Scots pine, sessile oak, Norway maple and Norway spruce and some silver birch. The understorey is sparse and the ground flora is indicative of the dense shade and with male fern and bramble being the major species with rosebay willowherb, bracken. However, in more open areas celandine, bluebells, wood sage and bilberry can be found. There are localised patches of Japanese knotweed.

#### Significance

The woodland is an important landscape feature in the centre of Whitehaven. Continuity of this wooded canopy is imperative for the ecological maintenance of the present species and to improve the overall woodland biodiversity. At a national, regional and local level woodland within the landscape is credited with importance and within the urban environment can improve the quality of life and reduce pollution.

#### **Opportunities & Constraints**

Arrowthwaite Wood has lacked thinning in the past, which lead to a dense, even-aged, poorly grown woodland. In recent years the Trust has taken the opportunity to thin the trees to open up the woodland, improve stand stability and increase understory development and age diversity, whilst moving the canopy structure towards predominantly native species. Work has been constrained by wind throw risk, poor extraction routes and by the safety and other hazards of working in such a busy urban environment.

Arrowthwaite Wood secondary woodland is constrained by size and acts as an island habitat surrounded by an urban environment. This is a limiting factor on its diversity potential but there is an opportunity to improve the woodland conditions to encourage the development of ground flora and aid natural regeneration of tree seedlings. However,

planting is essential to increase the diversity of native tree species, and to introduce a diverse, native shrub layer. There is an opportunity to retain the landscape value of all the canopy tree species, brought and planted by previous owners as a legacy and a living heritage and for their own ecological merit.

There is relatively little standing deadwood and a lack of fallen deadwood due mainly to the age of the wood and its trees. It is required to improve diversity but standing deadwood will be limited places by safety needs, and retention of fallen deadwood needs to be balanced against the risk of arson, campfires, and dangerous illegal activity such as unauthorised logging and theft.

Vandalism has lead to early decline, death and the disappearance of trees in some areas, particularly close to houses.

Garden waste poses a threat to native ground flora by competition and smothering, and has introduced invasive exotic garden species particularly Japanese knotweed. The control of invasive non-natives is essential, however controlling all garden exotics may not be realistic in this urban, secondary woodland. Woodland Trust management guidelines should be followed.

Opportunities to work in partnership with the local Council, local community organisations and local people may help to reduce these problems.

#### Factors Causing Change

Invasive Japanese knotweed. Natural succession to woodland from scrub. Vandalism, fire, wind damage. Pest & diseases. Note: ash is not a significant component of the canopy or regeneration, and ash dieback (which reached the area in 2017) will have limited impact. There are larch trees in the wood and Phytopthera ramorum could infect these resulting in them being felled. However, Arrowthwaite is an isolated wood, in a sparsely wooded area, on the western seaboard, and larch are not a major species so it will not be particularly prone to this.

#### Long term Objective (50 years+)

The long term aim is to further improve the diversity of this wood and maintain continuous cover, whilst aiming to develop the age structure throughout, with older trees, a developing shrub layer, native regeneration and a more diverse native ground flora. Controlling garden exotics and garden waste tipping where considered a threat to the woodland communities.

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

The steps to achieving the vision include:

Retention of trees to promote longevity and retention of deadwood both standing and fallen, where safe to do so given the access objectives and safety.

Monitor the impact of creating more light and gaps in the closed canopy by thinning and windblow. Identify those areas where thinning/selective felling would created opportunities for diversification and improve tree health/growth and stand stability, in the next plan period. These small coupes in Cpt1a will be replanted/regenerated favouring and introducing native tree & shrub species to promote sustainability & resilience, develop an understorey. Woodland ground vegetation should also be developed.

Monitor woodland conditions throughout and the impact of any management works or factors causing change. Complete control of Japanese knotweed annually until eradicated Reduce the impact of garden tipping, illegal felling and vandalism, working with the local council and neighbours when opportunity arises.

# 5. WORK PROGRAMME

Year	Type Of Work	Description			
2024	WMM - General Site Management	Works associated with maintaining conservation and physical features within the sites such as boundary ditches, fences and walls, hedges,	March		
2024	AW - Management Access Capital	Works associated with installing new or replacement management access infrastructure. Such as management access gates, vehicle bridges, fencing and surfacing works.	Мау		
2024	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	June		
2024	LC - Routine Litter Picks	Planned/routine litter picks using contractors	June		
2024	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,			
2024	LC - Routine Litter Picks	Planned/routine litter picks using contractors	July		
2024	LC - Routine Litter Picks	Planned/routine litter picks using contractors			
2024	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	September		
2024	LC - Routine Litter Picks	Planned/routine litter picks using contractors	September		
2024	SL - Tree Safety Works - Zone A				
2024	LC - Routine Litter Picks	Planned/routine litter picks using contractors	October		
2024	AW - Visitor Access Infrastructure	Works associated with the construction of a new or extension to existing car parking facilities.			
2024	LC - Routine Litter Picks	Planned/routine litter picks using contractors	November		

Year	Type Of Work	Description	Due Date
2024	LC - Routine Litter Picks	Planned/routine litter picks using contractors	December
2024	SL - Tree Safety Works - Zone A	Work associated with planned tree safety works alongside areas such as car parks, roadsides and boundaries	December
2025	LC - Routine Litter Picks	Planned/routine litter picks using contractors	January
2025	LC - Routine Litter Picks	Planned/routine litter picks using contractors	February
2025	LC - Routine Litter Picks	Planned/routine litter picks using contractors	March
2025	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	March
2025	LC - Routine Litter Picks	Planned/routine litter picks using contractors	April
2025	SL - Routine Safety Work	Works associated with undertaking planned visitor and structure safety orientated actions, such as erection/creation or maintenance of safety features such as fencing, rails, re-pointing of retaining walls etc	April
2025	LC - Routine Litter Picks	Planned/routine litter picks using contractors	
2025	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	
2025	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	
2025	LC - Routine Litter Picks	Planned/routine litter picks using contractors	
2025	LC - Routine Litter Picks	Planned/routine litter picks using contractors	July
2025	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing	July

Year	Type Of Work	Description	Due Date			
		pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,				
2025	LC - Routine Litter Picks	Planned/routine litter picks using contractors	August			
2025	LC - Routine Litter Picks	Planned/routine litter picks using contractors	September			
2025	AW - Visitor Access Maintenance	0				
2025	LC - Routine Litter Picks	Planned/routine litter picks using contractors	October			
2025	LC - Routine Litter Picks	Planned/routine litter picks using contractors	November			
2025	LC - Routine Litter Picks	Planned/routine litter picks using contractors	December			
2026	LC - Routine Litter Picks	Planned/routine litter picks using contractors	January			
2026	LC - Routine Litter Picks	Planned/routine litter picks using contractors	February			
2026	LC - Routine Litter Picks	Planned/routine litter picks using contractors	March			
2026	AW - Visitor Access Maintenance Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,		March			
2026	SL - Routine Safety Work	Works associated with undertaking planned visitor and structure safety orientated actions, such as erection/creation or maintenance of safety features such as fencing, rails, re-pointing of retaining walls etc				
2026	LC - Routine Litter Picks	Planned/routine litter picks using contractors	April			
2026	LC - Routine Litter Picks	Planned/routine litter picks using contractors	Мау			

Year	Type Of Work	Description	Due Date
2026	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	Мау
2026	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	June
2026	LC - Routine Litter Picks	Planned/routine litter picks using contractors	June
2026	LC - Routine Litter Picks	Planned/routine litter picks using contractors	July
2026	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	July
2026	LC - Routine Litter Picks	Planned/routine litter picks using contractors	August
2026	LC - Routine Litter Picks	Planned/routine litter picks using contractors	September
2026	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	
2026	26 WMI - General Site Restoration Work walls, hedges, infield and boundary trees		October
2026	LC - Routine Litter Picks	Planned/routine litter picks using contractors	October
2026	LC - Routine Litter Picks	Planned/routine litter picks using contractors	November
2026	LC - Routine Litter Picks	Planned/routine litter picks using contractors	December
2027	LC - Routine Litter Picks	Planned/routine litter picks using contractors	January

Year	Type Of Work	Description	Due Date		
2026	WMI - General Site Restoration Work	Works associated with initial or restoration phases to conservation and physical features within the sites such as boundary ditches, fences and walls, hedges, infield and boundary trees	January		
2027	LC - Routine Litter Picks	Planned/routine litter picks using contractors	February		
2027	LC - Routine Litter Picks	Planned/routine litter picks using contractors	March		
2027	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	March		
2027	LC - Routine Litter Picks	Planned/routine litter picks using contractors	April		
2027	SL - Routine Safety Work	Works associated with undertaking planned visitor and structure safety orientated actions, such as erection/creation or maintenance of safety features such as fencing, rails, re-pointing of retaining walls etc	April		
2027	LC - Routine Litter Picks	Planned/routine litter picks using contractors	Мау		
2027	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,			
2027	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,			
2027	LC - Routine Litter Picks	Planned/routine litter picks using contractors			
2027	LC - Routine Litter Picks	Planned/routine litter picks using contractors	July		
2027	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,			
2027	LC - Routine Litter Picks	Planned/routine litter picks using contractors	August		

Year	Type Of Work	Description	Due Date			
2027	LC - Routine Litter Picks	Planned/routine litter picks using contractors	September			
2027	AW - Visitor Access Maintenance	cess Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,				
2027	LC - Routine Litter Picks	Planned/routine litter picks using contractors	October			
2027	LC - Routine Litter Picks	Planned/routine litter picks using contractors	November			
2027	LC - Routine Litter Picks	Planned/routine litter picks using contractors	December			
2028	LC - Routine Litter Picks	Planned/routine litter picks using contractors	January			
2028	LC - Routine Litter Picks	Planned/routine litter picks using contractors	February			
2028	LC - Routine Litter Picks	Planned/routine litter picks using contractors	March			
2028	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	March			
2028	LC - Routine Litter Picks	Planned/routine litter picks using contractors	April			
2028	SL - Routine Safety Work	ine Safety Works associated with undertaking planned visitor and structure safety orientated actions, such as erection/creation or maintenance of safety features such as fencing, rails, re-pointing of retaining walls etc				
2028	LC - Routine Litter Picks	Planned/routine litter picks using contractors	May			
2028	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,				
2028	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing	June			

Year	Type Of Work	Description	Due Date
		pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	
2028	LC - Routine Litter Picks	Planned/routine litter picks using contractors	June
2028	LC - Routine Litter Picks	Planned/routine litter picks using contractors	July
2028	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	July
2028	LC - Routine Litter Picks	Planned/routine litter picks using contractors	August
2028	LC - Routine Litter Picks	Planned/routine litter picks using contractors	September
2028	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	September
2028	LC - Routine Litter Picks	Planned/routine litter picks using contractors	October
2028	LC - Routine Litter Picks	Planned/routine litter picks using contractors	November
2028	LC - Routine Litter Picks	Planned/routine litter picks using contractors	December
2029	LC - Routine Litter Picks	Planned/routine litter picks using contractors	January
2029	LC - Routine Litter Picks	Planned/routine litter picks using contractors	February

#### **APPENDIX 1 : COMPARTMENT DESCRIPTIONS**

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
1a	6.86	Corsican pine	1949	High forest	No/poor vehicular access to the site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	

Compartment 1a (6.86ha), includes all the woodland blocks and incorporates nearly all the site which is on a steep eastern facing slope, with an average slope of 35 degrees. Housing to the west, amenity grassland to the south, housing and industrial buildings to the east and cpt1b to the northeast surround cpt1a. To the north is a rough grazing field and some post and wire fencing. The woodland has a number of footpaths, which criss-cross the site; many are stepped and steep in places. The main Whitehaven brick path connects Old Arrowthwaite, where there is a square of amenity grassland managed by the Council through cpt1b to Albion Street. The public use this track extensively as an access route into Whitehaven town centre. There are 7 entrances with welcome signs into the wood. Where the two compartments meet fine views across the town and harbour can be gained.

The wood is very mixed but even-aged, with an interesting selection of mainly non-native trees which were originally planted. The main canopy species are Corsican pine, larch, beech, Scots pine, oak, Norway maple, Norway spruce and some silver birch. The understorey is sparse with hawthorn, blackthorn holly and rowan. The ground flora is indicative of the dense shade with male fern and bramble being the major species. There is a large area of rough grassland to the south east of the wood towards Preston Street.

There is repeated vandalism damage to trees, plus litter and tipping occurs particularly around the woodland boundaries. Management access by vehicle is limited with access being gained from the south or directly on to the footpath from Old Arrowthwaite. There are a number of underground services through the compartment and an overhead sewer pipe across the path leading from High Road at the northwest corner. There is a disused quarry at the north of the compartment, which has safety fencing (post and wire) across the top and down the southern side.

1b	1.41	Other	Non-wood	No/poor vehicular	
			habitat	access to the site, Site	
				structure, location,	
				natural features &	
				vegetation, Very steep	
				slope/cliff/quarry/mine	
				shafts/sink holes etc	
1					

This compartment lies to the east of cpt1a and is delineated by footpaths to the north and west and borders the 'New Houses' terraces to the east. To the north is the entrance from Albion Street and the footpath here gives fines views over Whitehaven. The open ditch from the west sinks in this compartment and travels underground. Much of the area (1.41ha) remained largely unplanted; with to the south between the footpath some oaks and to the north mixed larch, beech and oak. The west of the compartment above the main footpath is open grassland with scattered clumps (density 10%) of heathland vegetation including heather (Calluna vulgaris), tormentil (Potentilla

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
grassland and brack monogyna damage, c intrinsic w	with signific en (Pteridiur a), gorse (Ule aused by ars vildlife value,	ant dominant l m aquilinum). ex europaeus) son, which has , and the viiws	bramble (Rub This has isola and blacktho resulted in t is important	ous fruticosus) wit ated areas of rege orn (Prunus spinos he fire brigade att , it would be bene	Stellaria holostea). To the e h rosebay willowherb (Char nerating scrub including har a). All of this open ground h ending. Although the roug ficial to allow/create a shru duce the fire risk, without a	merion angustifolium) wthorn (Crataegus has suffered fire h ground has an b belt on the lower

#### 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.

#### Windblow/Windthrow

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

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