WOODLAND TRUST

Sea Wood

Management Plan 2017-2022

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MAPS

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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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:	Sea Wood
Location:	Bardsea
Grid reference:	SD293734, OS 1:50,000 Sheet No. 96
Area:	23.72 hectares (58.61 acres)
Designations:	Ancient Semi Natural Woodland, Ancient Woodland Site, Planted Ancient Woodland Site, Regionally Important Geological and Geomorphological Sites, Site of Special Scientific Interest

2.0 SITE DESCRIPTION

2.1 Summary Description

Visit both a wood and the seaside! Sea Wood stands against the northwest shore of Morecambe Bay and is edged by the shingle beach of Ulverston Sands. At one time large oak timbers from the site were floated at high tide to ship builders in Ulverston. Sea Wood is one of our Top Ten bluebell woods. If you'd like to visit and see a superb bluebell display, check our live map for bluebells at www.naturescalendar.org.uk as flowering times do vary around the UK. However, mid-April to early-June is usually an ideal time for most woods.

2.2 Extended Description

Sea Wood is located on the northwest shore of Morecambe Bay which is a Special Area of Conservation (SAC) and Special Protection Area (SPA), approximately 3 miles south of Ulverston at Bardsea. The wood is prominent on the landscape with few other woods in the immediate locality. The shingle beach of Ulverston Sands makes up the south east boundary with the rough unimproved grassland of Birkrigg Common (common land) to the north.

Sea Wood is a rare example of woodland on boulder clay overlying limestone. As a result it has a diverse composition and uncommon vegetation communities. Few such woods now remain in the county and Sea Wood is the largest example in South Cumbria and as such has been designated a

Site of Special Scientific Interest (SSSI)

There is documentary evidence of a long history of woodland on the site having belonged to Lady Jane Grey in the 1500's when it was thought to have been seized by the Crown. In the 1950's Lancashire County Council bought the wood as although it is split from the rest of Lancashire by the sea, is geographically still within the County Palatine of Lancashire, although the administrative boundary for local Government management is Cumbria. The sea played an important part in the management of the wood, and past management was achieved with large oak timbers floated at high tide from the wood to the ship builders in Ulverston.

Within the wood there are three mine shafts and an adit, part of the old copper mining industry which also took place on the adjacent Birkrigg Common. More recently the wood was part of Bardsea Country Park. Sea Wood is the largest and one of the few woods in the local area to which there is free public access which compliments the neighbouring access to the sea front and Birkrigg Common. The long distance Cumbria Coastal Path runs along the beach just outside the seaside boundary, or when tides are high access in maintained along the path just within the wood.

The 23.49 hectare ancient semi-natural wood is notable for the large number of old oak trees it contains. Much of the eastern and central sections of the wood comprise predominantly sessile oak with ash, sycamore and birch in the canopy and hazel, hawthorn, wild cherry and the occasional holly in the under storey. Wych elm becomes common in the canopy towards the north and west of the wood again with ash, oak, birch, sycamore and wild cherry. Discrete blocks of beech and sycamore had been planted (since removed) by previous owners and a small compartment of larch and ash. The hazel under storey is well developed throughout. Sea Wood is a good example of upland mixed broadleaved woodland (NVC W9) with the lower wood, east of the Coast Road, more characteristic of NVC W8 lowland mixed broadleaved woodland. The ground flora has developed on thin clay/rendzinas soil with the basic influence of limestone throughout and is dominated by bramble (Rubus fruticosus), and dog's mercury (Mercurialis perennis) with small areas of ramsons (Allium ursinum) and sanicle (Sanicula europaea) in base rich areas. The presence of wood sorrel (Oxalis acetosella) and various fern species characteristic of W9 classifications are found in the upper wood, with bracken (Pteridium aquilinum) locally-dominant, and scattered broad buckler (Dryopteris dilatata) and lady fern (Athyrium filix-femina), however notably no rowan (Sorbus aucuparia) is found there. The lower wood has only sparse wood sorrel (Oxalis acetosella) and ferns along the road edge but spindle (Euonymus europaeus), guelder rose (Vibernum opulus) and the uncommon pale St John's wort (Hypericum montanum).

Invertebrates are plentiful, particularly on the bramble. Many small mammals inhabit the ground vegetation and small birds, blackbirds and thrushes are abundant. There is a small seasonal pond in the north east corner of the upper wood and much of the wood is enclosed by dry stone walls, traditional to the area. Over 28 species of lichen have been identified and the mossy limestone boulders and rock outcrops within the wood support Peltigera horizontalis, which may be a last relict of a former richer flora.

The woodland is very well used by locals and visitors to the area. There is a small parking area adjacent to the wood and further along the beach front, where there are other public facilities.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

Sea Wood lies 5km to the south of the town of Ulverston near the village of Bardsea on the A5087 Coast Road.

There is an extensive network of permissive paths through Sea Wood, over 3.5km. The Coast Road splits the wood in two. The lower wood can be entered from a small parking area to the south east of the site, adjacent to the beach. There are a few steps on the paths in the lower wood. Access to the upper wood can be gained from 3 points off the Coast Road, all squeeze gates and from Birkrigg Common to the north (via a kissing gate). There are no steps on the routes but the paths are unsurfaced and uneven but flat or only moderately sloping. Along the Coast Road towards Ulverston there are numerous parking places overlooking the beach; refreshments and toilet facilities. The long distance Cumbria Coastal Path runs along the beach just outside the seaside boundary, or when tides are high access in maintained along the path just within the wood. Sustrans route 20 passes to the west of the wood at the top of Birkrigg Common.

The main trunk road to Ulverston is the A590 to Barrow-in-Furness. From Ulverston, after the mini roundabout for Booths take the second on the left for Bardsea; the A5087 Well Lane into Priory Road past Coniston Priory and then onto the Coast Road. There is parking all along the beach and a small parking area adjacent to the wood. For further local information contact Ulverston Tourist Information Centre on 01229 587120.

Traveline can help plan journeys by train or bus and is a national public transport route and timetable information service operating from regional call centres. The service is available 7 days per week between 7.00 a.m and 8.00 p.m. (some centres are open even longer) by dialling 0871 200 22 33 (calls cost 10p per minute from landlines). The Traveline website is at www.traveline.info and has a online Journey Planner facility.

The main train station in Ulverston is on Station Approach just off Springfield Road and is managed by Transpenine Express with regular services from Barrow and Kendal (Oxenholme). There are accessible toilet facilities at the station. Ulverston is approximately 4 miles from the wood.

Numerous buses serve Ulverston from Kendal, Windermere and Barrow, and there are buses from Ulverston to Bardsea which is less than 0.5 miles from the wood.

3.2 Access / Walks

4.0 LONG TERM POLICY

Sea Wood is designated ancient semi natural woodland meaning that woodland has been here for hundreds of years with records dating back to the 16th century. Prior to the Woodland Trusts ownership the wood was part of Bardsea Country Park and is an integral part of the landscape, revealing fine views out to sea. The character of the wood on acquisition resembled upland mixed broadleaved woodland (NVC W9) with discrete areas of planted beech, sycamore and larch which make these parts Planted ancient Woodland sites (PAWS). The lower wood, east of the Coast Road, more characteristic of NVC W8 lowland mixed broadleaved woodland. A Site of Special Scientific Interest (SSSI) Sea Wood is a rare example of woodland on boulder clay overlying limestone with diverse and uncommon vegetation communities.

It is the Trust's objective to enhance the typical ancient characteristics of this 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 ancient habitat through the management of two dominant key features of the woodland:

1) Ancient Semi Natural Woodland and Planted Ancient Woodland
Conserve and enhance the ancient woodland by conserving the remnant ancient woodland features and species by removing any threats. Most of the Ancient semi natural woodland can achieve this by developing naturally, but the Planted Ancient Woodland Areas and areas where threats occur, such as entrances and boundaries will need continued monitoring and active management. It is expected that the whole wood will gradually evolve as an upland mixed ash wood, NVC W9/W8. This will require the maintenance of a continuous cover of woodland, the retention of old trees, standing and fallen deadwood and encouraging natural succession and regeneration. It will result in increasing maturity and a more uneven aged structure, with increasing amounts of dead wood. It is also important to conserve the limestone geology in its natural state; thereby improving biodiversity and promoting the ecology of the woodland.

2) Informal Public Access
Provide good quality, safe welcoming and informative access and interpretation facilities for the high numbers of both local visitors and tourists visiting this very attractive wood. This will be done by maintaining the informal access to the woodland on over 3,500m of permissive footpath, including provision of five entrances with welcome signs. Public information will be provided on site where appropriate, and also on the wood web micro site to gain a wider audience.

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

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

There are seven public entrances to the wood, with limited parking available adjacent to the north eastern entrance next to the sea front. Access can be gained in several places from the Coast Road, which bisects the wood in two forming a large upper block and the smaller lower block adjacent to the sea front. An entrance also leads from Birkrigg Common to the northwest. There is an extensive network of permissive paths within the wood, over 3.5km and links to adjacent footpaths and the beach front. The long distance Cumbria Coastal Path runs either along the seaside boundary, or through the seaside strip, depending on the tides. The views across Ulverston Sands can be quite spectacular and there is much geological, historical and botanical interest within the woodland. The footpaths through the wood are clearly defined but can be a bit rocky in places. There is further car parking and amenities along the sea front to the northeast.

Significance

Sea Wood was previously part of Bardsea Country Park and public access has been a key component of the woods recent history. It is important to continue such access and the routes link with open access across Birkrigg Common to the north, along Ulverston Sands to the east and also with the long distance route the Cumbria Coastal Way which runs along the beach to the east of the wood or along the road. Sea Wood is the largest and one of the few woods in the local area to which there is free public access. Increasing enjoyment of woodland is one of the Trust key outcomes. Encouraging safe and enlightened access to Sea Wood is particularly important given the rich and varied habitats and features within the ancient woodland and the importance of its habitat on both a local and national scale. The wood has an interesting and varied history dating back to Lady Jane Grey and covering the industrial heritage supplying ship timbers to the Ulverston dockyard and copper to the local mining works. This history and the woods intrinsic qualities make it an important local resource to the surrounding villages and towns and an educational resource for visitors and organised groups. Public appreciation of ancient woodlands is good for the well-being of those visiting the wood and ultimately, good for the wood itself through increased public understanding of the plight of ancient woodlands. It’s rich in wildlife and renewable resources, yet once lost can never be recreated.

Opportunities & Constraints

Sea Wood is well used by local people and those from further afield. The footpath network enables good circular walk to be done and offers links to more extensive routes. In places several similar paths have developed which unnecessarily increases the impact on the ground flora so where possible these are rationalised to minimise trampling. The situation has been made worse by the use of mountain bikes in the wood which cause rutting and braiding of footpaths. Rational management can largely be achieved by maintaining only selected paths and letting others disappear or if necessary by subtle discouragement. There is some vandalism and fly tipping to the site, which needs to be contained to allow visitors safe and welcome access. The mineshafts and adit on site are potential risks to visitors and have been capped and fenced to reduce the risk. These controls need to be maintained. There is an opportunity to inform the public of management practices and the history, geology and botanical interest in the wood through posters on site, as appropriate, and providing additional information to a wider audience through the woods web micro site.

Factors Causing Change

Vandalism especially boundary walls, Fly Tipping, Fire and use of mountain bikes.

Long term Objective (50 years+)

Provide good quality, safe welcoming and informative access and interpretation facilities for the high numbers of both local visitors and tourists visiting this very attractive wood. Ongoing maintenance of over 3.5km of paths and several entrance facilities to ensure they are accessible to a wide range of visitors and in line with category A (high usage). Monitor for and control vandalism and fly tipping. Promote the wood on site and elsewhere to provide further detailed information and encourage visitors both locally and nationally so long as the primary objective of 'no further loss of ancient woodland' (in terms of both quality and quantity) is not compromised.

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

Cut back and strim network of footpaths identified on the EMC map, to pedestrian width. Clear any encroaching branches from the footpath and fallen timber. General maintenance of the path network. Maintain/repair access points (x7) and welcome signs. 2 visits per year to carry out these works, all to Woodland Trust standard specifications.
Regular tree safety inspections at defined intervals.
Clear woody vegetation from the mine shafts and spoil heap areas designated as RIGS every 5 years.
Clear litter and tipping as necessary, currently 3 times per year.
Monitor and repair the consequences of vandalism.
Examine the potential and practicalities of improved connection between the two parts of the wood which are separated by the busy road.

5.2 Ancient Semi Natural Woodland

Description

Sea Wood is a rare example of woodland on boulder clay overlying limestone with some large limestone boulders over 2m high (see location map in reference file) and diverse and uncommon vegetation communities. Small outcrops of wooded limestone pavement occur in the wood and provide an interesting contrast with the boulder clay communities. The 23.49 hectare wood comprises predominantly sessile oak with ash, sycamore, birch and some wych elm in the canopy and a well-developed hazel understorey with hawthorn, wild cherry and the occasional holly. The character of the wood on acquisition resembled upland mixed broadleaved woodland (NVC W9) with small discrete planted blocks of beech and sycamore (which have since been removed) and also a small compartment of larch, which remain as they no longer constitute a threat. The lower wood, east of the Coast Road, is more characteristic of NVC W8 lowland mixed broadleaved woodland. There are a large number of old oak trees within the canopy, representing a significant old growth community. The shrub layer is dense, varied and uneven aged and the ground flora well developed and diverse. Both have various ancient woodland indicators including spindle, bluebells, wood anemone, sanicle, Solomon's seal and other woodland specialists. There is much fallen dead wood and some standing deadwood. Bryophytes are plentiful on the limestone boulders, trees and stumps, especially ferns .

Significance

The woodland is designated as ancient on the Nature Conservancy Council (now Natural England) register and has a documented ancient history going back to the 16th Century and industrial remnants of past historical use in the ship building and copper mining industries. Sea Wood is an important landscape feature in the coastal countryside of Ulverston Sands and is a key semi-natural habitat bordering the sea. As a Site of Special Scientific Interest (SSSI) the woodland is a rare example of woodland on boulder clay overlying limestone and is host to an impressive geological make up of limestone pavement and boulder clay. Sea Wood is notable for the large number of old trees present in the canopy, an unusual feature in Cumbrian woods, and an important landscape feature. It is also notable for a well-developed uneven aged shrub layer and a diverse ground flora that has flourished in the absence of grazing by domestic animals. The old growth tree species are irreplaceable and will play host to a vast well-established ecosystem including insects, birds, ferns and lichens. Sites of ancient woodland provide a continuous habitat for our native species. Many of these species can live nowhere else. Some plants and animals have very specialised requirements and spread very slowly, if at all, into new woods. Nationally, upland ash woodland has declined in area through clearance, overgrazing and replanting with non-native species by about 30-40% over the last 50 years - as stated in the Cumbria Biodiversity Action Plan. In Cumbria 34 SSSI sites are notified for their upland mixed ash woodland and the habitat is identified in the EC Habitats Directive. The adjacent Morecambe Bay estuary has a number of designations because of it's national and international importance for over-wintering bird habitat; the designations include Special Area of Conservation (SAC), Special Protection Area (SPA), RAMSAR (representing Wetlands of International Imprtnace) and Important Bird Area (IBA). The location of Sea Wood adjacent to other semi-natural and protected habitats links and increases the sustainability and success of the ecology of the woodland and associated habitats.

Opportunities & Constraints

There is an opportunity to retain the older trees to develop more veteran trees which are reduced in number due to felling in past management. There is an opportunity to maintain the species diversity, uneven age and the diversity of structure and species of the wood. Threats to the woodland will be monitored and controlled as necessary. The planted larch make this site part PAW's (Planted Ancient Woodland) however the density is now less than 20% and low enough that they present no further threat to the ancient woodland so the PAWS area is considered secure. There is an extensive boundary to fields (which are largely arable) and the common (which is grazed), surrounding Sea Wood and it is important that these are maintained in a stock-proof condition to prevent stock grazing (this had been a problem in the past) and so allow the continuation of the well-developed ground flora, regeneration and shrub layer. This can be achieved by working with neighbouring landowners where necessary. In some areas the exposed limestone pavement and large boulders may pose minor constraints to management operations but it is anticipated that there will be opportunity to work around these constraints. The old growth of the oaks is threatened on the seaward boundary from high sea winds and sea salt which is thought to be the cause of wind-snap and deadwood in the crowns. This action though is natural and also provides dead and decaying wood important for the invertebrate community. The sea is eroding the eastern edge of the woodland and will to continue to do so, all be it very slowly. Additionally there is the threat of pollution from emissions from local chemical works and acid rain, which is thought to be affecting the establishment of the lichen communities, as the trunks of oaks are particularly susceptible to acidification. Pollution, tipping and fires all pose a threat but tend to occur at the edges of the wood, so special attention is needed there to monitor, discourage and mitigate against these. There is the opportunity to liaise with visitors and local people to discourage these activities and inform them of the importance of this. attractive habitat. All works must comply with the constraints laid down under the SSSI designation and some may fall within the ‘List of Notifiable Operations’. Natural England should be consulted and consent obtained before varying any of the work in this plan.

Factors Causing Change

Uncontrolled Grazing, Frequent Wind Damage, Vandalism of boundary walls, Pollution

Long term Objective (50 years+)

The long term aim is to conserve and improve the diversity and richness of this ASNW by promoting an uneven aged and varied species structure throughout the woodland with a well developed shrub layer, native regeneration and a good ground flora. The condition aspired to includes the retention of old growth; standing and fallen deadwood and the conservation of the geological features, whichhost the diverse herbaceous communities, bryophytes and invertebrates.

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

The steps to achieving the vision set out include: -
Monitor the old growth trees and where necessary plan works to promote retention.
Increase the amount of standing deadwood as recommended by Natural England by leaving high stumps during tree safety works.
Monitor and protect the geology (boulders) and geological features from accidental or deliberate damage.
Inspect boundary annually and maintain as stock proof to prevent grazing by domestic stock threatening the continuity of the well-developed shrub and ground flora.
Observe the general woodland condition for any threats or factors causing change within each plan period, especially current threats such as tree diseases (Phytopthera ramorum in larch, Chalara in ash) which could significantly affect the composition of the canopy and regeneration.

6.0 WORK PROGRAMME

Year	Type of Work	Description	Due By

APPENDIX 1: COMPARTMENT DESCRIPTIONS

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Key Features Present	Designations
1a	5.30	Oak (sessile)	1840	High forest	No/poor vehicular access within the site	Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland, Regionally Important Geological and Geomorphologic al Sites, Site of Special Scientific Interest

Compartment 1a lies to the east of the Coast Road and is separated from the rest of the wood by this road. To the east of the compartment the seaward boundary is marked by a low limestone cliff and Ulverston sands a shingle bank and to the south is a grazing field. At the extreme north-eastern tip on adjacent property is a small car park where access to the wood can be gained. There is a further entrance to the southwest from the Coast Road and also steep rocky access to the southeast onto Ulverston sands. There is a small quarry on the south-eastern boundary and an adit to the north of the area. The ground is rocky with exposed limestone and thin soils. Litter can be a particular problem in this area. The canopy trees (P1870) are predominantly mature sessile oak (dominant), sycamore (frequent), birch (frequent), ash (frequent) and wych elm and hazel, hawthorn and wild cherry in the understorey, with regeneration of ash, sycamore and some beech. The understorey is dense and well developed. Additionally along the boundary to the shingle bank are spindle, guelder rose and holly. This is characteristic of NVC W8 lowland mixed broadleaved woodland with elements of W9 towards the roadside. Consistent with this, the ground flora includes bramble, dog’s mercury with bluebell, ramsons and Solomon's seal along the roadside boundary. Wood sorrel and ferns are more prominent along the roadside and the herbaceous flora along the boundary to the shingle bank includes wood small-reed, tutsan and uncommon pale St John’s wort and is particularly diverse. Bryophytes are found on the ground rocks and tree stumps and there is much dead wood throughout the compartment.

2a	18.19	Oak (sessile)	1840	High forest	Housing/infrastructure, structures & water features on or adjacent to site	Ancient Semi Natural Woodland, Informal Public Access	Ancient Semi Natural Woodland, Planted Ancient Woodland Site, Regionally Important Geological and Geomorphological Sites, Site of Special Scientific Interest

The Coast Road runs northeast to south through the woodland splitting Sea Wood into two blocks. Sub-compartment 2a is on the west of the road and is the larger block of woodland, totalling 18.19ha. There are three pedestrian entrances off the Coast Road including 2 management entrances with 12ft and 10ft field gates and one pedestrian and management entrance to the northwest from Birkrigg Common. Permissive footpaths criss-cross the compartment. Three mineshafts exist inside the northern boundary of which 2 have been located and are capped and fenced off with post and wire. The boundaries are mostly drystone walls, some post and wire fencing to adjacent fields, and old iron railings to the road. Post and rail fencing forms the boundary at the northeast corner adjacent to a small pond. The ground falls gently to the southeast and is rocky with small outcrops of wooded limestone pavement and some limestone boulders reaching over 2m in height. The canopy is similar throughout with a canopy of mature sessile oak (P1840), ash, sycamore and birch with a good understorey of hazel, hawthorn, wild cherry and occasionally holly and elder. Wych elm becomes more common to the north and west of the compartment. Natural regeneration of ash and sycamore is prevalent. Bramble and dog's mercury are co-dominant with bracken frequent to locally dominant. Broad buckler fern and lady fern are found scattered throughout. Other species are varied including bluebells, wood anemone, ramson and sanicle, plus herb Robert, hard fern, wavy hair grass and false broom. Mosses and lichens are abundant.

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.