



COED CADW
WOODLAND
TRUST

Graig Fawr

Management Plan
2014-2019

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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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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:	Graig Fawr
Location:	Margam
Grid reference:	SS793869, OS 1:50,000 Sheet No. 170
Area:	51.39 hectares (126.99 acres)
Designations:	Ancient Semi Natural Woodland, Ancient Woodland Site, Planted Ancient Woodland Site, Scheduled Ancient Monument

2.0 SITE DESCRIPTION

2.1 Summary Description

This wood boasts six sites of archaeological interest including a World War II station and a 14th Century Monk's Bath House. Kestrel, buzzard, sparrowhawk, little and tawny owls were all reported in 1990. There are dramatic views from the upper footpath and a spectacular bluebell display in spring.

2.2 Extended Description

Situated on a prominent south-west facing scarp slope overlooking Margam and Port Talbot, Graig Fawr is visible for many miles. It is a dramatic landscape feature with a mixed canopy of conifer and broadleaves along with natural features such as cliffs and open grassland. To the west of Graig Fawr is the small hamlet of Brombil and to the south-west the M4 motorway runs along a section of boundary. The majority of the adjoining land to the north and north-east is farm pasture, whilst directly east are the grounds of Margam Country Park owned by the Local Authority, which includes woodland and is a very popular place to visit. Finally to the south is the Gorsedd Field of the National Eisteddfod at Port Talbot in 1966.

There are several access points to the woodland and numerous permissive and public footpaths (although the delineation of some of these is not clear). Most visitors enter the woodland from the lower footpaths, and those energetic enough to reach the upper footpath (along the top ridge) can enjoy spectacular views of the nearby Steel works and the Bristol Channel beyond.

The site is extremely rich archaeologically, with six sites present, including a World War II RADAR station, a 11th Century Monk's Bath House and a Napoleonic lookout camp.

In addition to archaeological features, and management for public access, a key feature of the site is that part is a Planted ancient Woodland. This woodland lies on the fringes of a larger ancient woodland within the local region, predominantly owned by Natural Resources Wales, much of which has been clear-felled following Phytophthora Ramourum infection in 2012 and remains unplanted today (2018).

To the east fragments of the Ancient woodland (non beech plantation) still exist within the walls of Margam park which show a predominantly Oak/Ash canopy composition and have an array of veteran trees with a varied understory more remnant of a wood pasture system, probably linked to the monastic abbey nearby.

Adjacent to the site is the historic parkland of Margam Park & Abbey on a steep undulating escarpment formally used, in part, as a quarry site during the construction of the Abbey during the 11th century.

The main part of the site is listed as ASNW following the 2011 AWI review however much of the site is planted Beech on former AW site. During the Woodland Trust ownership in 1993, much of the site has undergone PAWs restoration with the removal of mature Douglas Fir to the east and spruce/pine mix throughout the main compartment. Remnants of this work can be seen with line thin racking still visible. Since this work in 2004 canopy closure by the Beech has been a main factor in the ground flora decline with large 'patches' visible in the Bluebell caret during the spring. Combined with the impact from the wild fallow deer heard in the area little to no regeneration has taken place and due to the density of the Beech stand, deer culling has been a difficult operation to carry out.

Recorded species on the site include some raptors - kestrel, buzzard, sparrow hawk, little and tawny owls were all reported in 1990. Nearby a large man made pond is situated to the rear of Margam abbey and is home to 11 out of 18 species of bat including the Greater Horseshoe Bat (*Rhinolophus ferrumequinum*) with Graig Fawr providing a valuable connectivity habitat in the region of constant change due to tree disease and damage caused by rhododendron infections and development nearby.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

General Location

Graig Fawr is located at Margam near Port Talbot, just north of the M4, and is reached off the A48 by following directions for Pyle. Almost immediately, turn right following signs for Margam Stones Museum and Margam Abbey. Ignore the right fork (dead end to houses) and follow the road around to the left. Having passed houses on the left hand side, do not take the first turning on your left, but continue on the road until it bends right. Then you see a small car park on your left, on the far side of which is the Woodland Trust sign and information board. This main entrance to the wood is around ½ mile (less than 1km) from Junction 38 of the M4 and approximately 2 ½ miles (4km) south east of Port Talbot. An entrance interpretation panel includes some information about the historical features in the wood. There is a second footpath entrance at the western end from the hamlet of Brombil, east of Margam.

General Overview of Entrance and Paths

The entrance is open (no gates or styles). After walking up 5 steps, there is a gated path off to the left. Otherwise, it is a 50m ascent in about 300m, on firm ground (not stony) which may be slippery in wet weather. This leads to an upper path to the left and also joins a Margam Country Park trail (see below). Turning left the path is a fairly broad track, firm underfoot, which undulates along the contour. There are remnants of where streams have crossed the path: the first can be circumnavigated, the second more tricky to negotiate, despite the pipe put in to aid drainage. There is a network of permissive and public footpaths in the wood. The public footpaths run along the central and upper section of the woodland. Certain sections are extremely steep along these paths and can be slippery in wet weather. The western portion of the central public footpath is not defined on the ground and becomes dangerously rocky and unstable. A track runs adjacent to the southern boundary of the site. Prior to silvicultural work completed during the plan period 2000-2005, the access provision was improved by constructing a new route through the middle section of the woodland which could be used for timber extraction.

Parking

At the Margam Abbey end, there is a small car park which will comfortably take around 7 cars. In addition, the car park at the abbey is for visitors to the abbey, museum and/or restaurant.

Public Transport

The X1 run by First Cymru Buses runs from Bridgend to Swansea. Alight at:

- a) Margam Country Park (eastern side)
- b) Twelve Nights Hotel for Brombil (western side)

From Twelve Nights Hotel in Margam:

- Walk in a north-westerly direction along MARGAM ROAD (A48)
- After 40yds, turn right into TY-FRY ROAD
- Continue on towards Brombil and the entrance is past the last group of houses and up to the right. (Traveline, accessed April 2007)

Public Toilets

The nearest known are on the eastern side in Margam Country Park. There is a separate disabled toilet (key not required). The entrance is free, but if you stay you have to pay a car park fee of £3.

For further information and opening hours visit their website: <http://www.neath-porttalbot.gov.uk/margampark> (Accessed: 12th April, 2007.)

To get to Margam Country Park: From the abbey, return to the A48. Turn left away from the

roundabout. After a few hundred metres you see the park entrance on your left. (Visited April 07). On the western side of the park, the nearest known RADAR accessible toilets are all in Port Talbot (not visited) at:

Bus Station

Princess Margaret Way, Sandfields

Western Avenue, Sandfields

Port Talbot Parkway Station (Station hrs) (Arriva Wales) - about 2 ½ miles from Brombil

"Lord Caradoc", Station Road (Trading hrs) (Wetherspoons)

<http://www.directenquiries.com/NKS/search.aspx?tab=RADAR+Accessible>

+Toilets&type=L&where=Port+Talbot&id=2606&level=1

(Accessed:

13th April, 2007.)

Other Trail Networks

The following trails are nearby or adjoining Graig Fawr

On cycle route 4

Links on to the Monastic Trail, a circular walk from Margam Country Park. For further information, visit their website:

<http://www.neath-porttalbot.gov.uk/margampark>

(Accessed 12th April, 2007.)

Other nearby trails beginning in Margam Country Park:

Ogwr Ridgeway Walk (20kms, 13 Miles)

The Coed Morgannwg Way (57kms, 36 Miles)

3.2 Access / Walks

4.0 LONG TERM POLICY

Ancient woodland features will have been enhanced throughout the site. Non-native trees, and in particular heavily-shading conifers, will have been reduced by gradual thinning and a predominantly native canopy restored. Some conifers and non-native broadleaves will have been retained however, contributing to visual and biological diversity. Some improvements to path markings and rides will have been made, ensuring good conditions for public access. Deer numbers will have been controlled as necessary in order to ensure successful regeneration throughout the site. Rhododendron will have been eradicated from within the woodland. The Archaeological features will have been carefully managed in liaison with CADW and the local historical society and will be in good condition.

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 Planted Ancient Woodland Site

Description

Most of the site is designated as ancient woodland much of it displays ancient woodland features, making it one of the largest sites with ancient woodland characteristics in the locality. It lies within a region with a high concentration of ancient woodland. Typical woodland ground flora associated with AWS exists, but the nature of the site is suppressed by conifers as well as a dense beech canopy.

Significance

Preventing any further loss of ancient woodland, is a core Woodland Trust objective. A woodland ground flora exists, indicating ancient woodland, but this is partially suppressed.

Opportunities & Constraints

Constraints include the inaccessibility and steepness of slope of some of the Planted Ancient Woodland areas, grazing from deer having an impact on regeneration, and the prominence in the landscape of upper parts of the wood in the landscape. There is an opportunity to encourage a diversity of native broadleaves throughout the whole site through gradual thinning of non-native trees, and conifers in particular. There is a potential opportunity to explore a deer control strategy together with neighbours (Margam Park and Forestry Commission).

Factors Causing Change

Invasive Rhododendron and Bracken, Natural Succession to non-native broad leaves, Deer Damage and browsing effects.

Long term Objective (50 years+)

The long-term vision is to have enhanced the ancient woodland components of the site so that they are secure or improving in condition. Non-native trees, and in particular heavily-shading conifers, are reduced through thinning or group felling in order to restore a canopy of broadleaved species (both native and non-native) and diverse ground flora. Some conifers and non-native broadleaves (beech, chestnut etc) are retained long term to add visual and biological diversity.

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

To enhance the character of the wood and encourage development of a canopy of native broadleaves through the majority of the site, favouring these species over conifers during thinning operations during this plan period. Compartments 1c and 1g are prioritised for restoration, due to the dominance of conifer in places; with other less-shaded compartments as a secondary priority for gradual thinning.

To ensure planted trees in ct 1b are maintained until successfully established through annual operations to weed and beat up if necessary.

To ensure the majority of rhododendron is under control through annual treatment of remaining bushes.

To promote natural regeneration of broadleaf species through gradual thinning and ongoing deer control where necessary.

5.2 Archaeological Feature

Description

There are six main historic sites/structures on site;

1. Radar Station dating from World War II, consisting of three reinforced concrete buildings with flat roofs, set on the high scarp of the Margam ridge facing South east. The gantry is believed to be a unique survivor within the British Isles. It was designed to guard against enemy surface craft and submarines in the British Channel. This was designated as a Scheduled Ancient Monument of national importance by CADW in 1996.
2. 'Half-Moon' oval univallate camp with surviving ramparts and old track (impassable) leading up cliff face to its nearby field enclosure system. This is described by CADW as being of national importance and was Scheduled as such in 1994.
3. Above enclosure, believed to be Iron Age (CADW considering it as Ancient Monument).
4. Cwar y Graig Fawr stone ruin.
5. Monks Bath House medieval stone structure over a spring, probably dating from the 14th or 15th Century. Though likely connected with Margam Abbey, it is thought to have been a baptistery for the local population. It is also known as Ffynnon Gyffyr (medicinal spring) and may have been used in earlier times for healing. It is a Listed Grade II building as an unusual and complete survival of a medieval baptistery and holy well.
6. WW2 infrastructure - possible search light concrete pad.

Significance

Graig Fawr contains an array of archaeological structures and historical features spread around much of the site. These across a historical range covering the WW2 Radar station from the 20th Century to the 'Monks Bath House' which is over six centuries old connected to the nearby Margam Abbey's establishment in 1156.

Within the immediate locality, the historic importance of each of these structures over-rides other management objectives acting as landmarks and areas of interest for site visitors.

Very few sites within the Trusts ownership in South & West Wales display the broad spectrum of human occupation extending in to the 20th century. This offers a variety of interest for visitors throughout the seasons with some of the features being nationally important and listed as Scheduled Ancient Monuments or Listed buildings. Much of the site is connected to the historic parkland of Margam park immediately adjacent to the site such as the Monks bath house and the former quarry (hence the site name of Graig Fawr or 'Big Rocks') where much of the material was sought in the construction of the Abbey nearby.

Opportunities & Constraints

A potential constraint to the maintenance of these features is the possibility of vandalism (the Radar station has already suffered from graffiti). Designations by CADW also insist on certain management restrictions and requirements if working in the locality of the structures. Restoration of the woodlands is a management consideration which will be partially constrained by the historic features which impact upon extraction routes for timber.

Opportunities of this site are generally encapsulated by the engagement potential to demonstrate how Ancient woodlands such as this site are in effect time capsules for human occupation with many features preserved within due to the continuation of the woodland landscape here. Guided walks are a strong possibility throughout the seasons due to the volume of historic features along with the proximity to a major tourist attraction local - Margam Park.

Factors Causing Change

Vandalism directly such as graffiti or destruction and indirectly from new downhill mountain bike tracks.

Impacts from PAWs restoration with machinery damaging known or unknown historic features.

Long term Objective (50 years+)

The historical features on the site will have been carefully preserved throughout all operations and be intact with many of the features being enhanced through small scale restoration works to maintain the features such as the listed buildings.

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

Ensure structures/monuments are in a safe satisfactory condition through annual observations/site visits

Map all historic features on site and carry out basic review of any work needed to keep the buildings in particular in safe condition.

Budget for any proposed works during management plan period.

5.3 Informal Public Access

Description

Graig Fawr is located at Margam near Port Talbot, just north of the M4, and is reached off the A48 by following directions for Margam Abbey. There is space for parking of 4-6 cars at the main entrance to the wood. An entrance interpretation panel includes some information about the historical features in the wood. There is a second footpath entrance at the western end from the hamlet of Brombil. One public footpath runs along the northern boundary of the wood above the ridge and has been adopted as the route for the Wales Coast Path which exits the site at the byway to Crugwyllt-fawr and re-enters on the boundary with Hen Eglwys before exiting at the main entrance. There is also a public footpath, running along the mid-line of the wood, from Hen Eglwys. The site appears to be well used by locals and other groups occasionally use the wood (eg. Swansea Bay Orienteering).

Significance

Two public footpaths run through the wood and along its boundary, and must be maintained to allow continued access. Additionally the topmost footpath offers spectacular views of the Port Talbot area. As well as this visitor numbers to the wood are low and improved access would encourage those visiting Margam Park adjacent to visit Graig Fawr.

Opportunities & Constraints

The main constraint to maintenance of the site for public access is the dangerous nature of some of the footpaths: the central public footpath runs into dangerous rocky ground about half way through the wood heading west, and disappears for a section. Some of the paths are also quite steep in places and steps require regular maintenance. In 2006 there were incidences of fly-tipping and an attempted theft of a parked car at the main entrance to the site, just outside WT boundary. There is an opportunity to increase enjoyment of the site by the public by opening up scallops along path edges to create pleasant walking routes. There is some local interest in the site and a nearby secondary school which may provide opportunities for encouraging people to visit the site.

Factors Causing Change

Increased use, fly-tipping.

Long term Objective (50 years+)

Visitors to the wood enjoy quiet recreation with viewpoints, interpretation and a network of paths making for a good, safe recreational experience.

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

Permissive and public footpaths will be maintained as accessible and safe for visitors through estates maintenance contract. Path furniture will be maintained in a serviceable condition in cooperation with the local authority where the Coast Path crosses the site.

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	3.11	Beech	1950	PAWS restoration	Archaeological features, Housing/infrastructure, structures & water features on or adjacent to site, Legal issues, Mostly wet ground/exposed site, Sensitive habitats/species on or adjacent to site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Archaeological Feature, Informal Public Access, Planted Ancient Woodland Site	Planted Ancient Woodland Site, Scheduled Ancient Monument
<p>Moderately sloping sub compartment with a westerly aspect, located in the North east of the site, with a byway leading to Crugwyllt-fawr running along the sub-compartment boundary. Mixed dominating conifers (Japanese Larch, Norway Spruce, Scots and Corsican Pine) were felled in 2003, leaving individual stems of Ash, Beech, Sycamore, Oak and Hazel along with other species present throughout the canopy. Mixed broadleaves were under-planted over 2.8 ha in early 2004, the remaining appearing to benefit from natural regeneration. Ground flora is mostly sparse with bracken, bluebell. The Monk's Bathhouse (S.A.M) is present within the sub-compartment.</p>							
1b	2.55	Mixed conifers	1960	PAWS restoration	Housing/infrastructure, structures & water features on or adjacent to site, Legal issues, Mostly wet ground/exposed site, No/poor vehicular access within the site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Archaeological Feature, Informal Public Access, Planted Ancient Woodland Site	Ancient Woodland Site

A steeply sloping stand of mixed conifers and broadleaves of varying densities. Sitka spruce and Scot's pine are interspersed with oak, beech, rowan and hawthorn. Ground flora is similarly variable, thriving in those areas thinned in 2008 and consists of bluebells, primroses, ferns and grasses. A public right of way runs east-west through the site and is also the designated route for the Wales Coast Path.

1c	5.33	Mixed conifers	1960	PAWS restoration	Mostly wet ground/exposed site, No/poor vehicular access within the site, People issues (+tve & -tve), Very steep slope/cliff/quarry/ mine shafts/sink holes etc	Archaeological Feature, Informal Public Access, Planted Ancient Woodland Site	Ancient Semi Natural Woodland, Planted Ancient Woodland Site
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A steeply sloping compartment with a south-westerly aspect where conifers dominate and include Scots pine, Corsican and Lodgepole pine with isolated groups of Sitka spruce. The more dense areas were last thinned in 2007 and will be subjected to a further thin in this plan period, in line with the PAWS restoration strategy. Individual or small groups of broadleaves are present within the canopy, primarily ash along with Sweet chestnut, oak, beech, rowan and sycamore. Isolated pockets of rhododendron can be found in the shrub layer. Ground flora is found along the fringes and sparse areas of bluebell and bracken. On the far western boundary an area of dead larch was clear felled in 2012 and restocked with mixed broadleaves. (see felling licence conditions on file). A public right of way, the designated route for the Wales Coast Path runs along the northern boundary of the compartment.

1d	14.36	Mixed conifers	1950	PAWS restoration	Gullies/Deep Valleys/Uneven/ Rocky ground, Mostly wet ground/exposed site, People issues (+tve & -tve), Very steep slope/cliff/quarry/ mine shafts/sink holes etc	Archaeological Feature, Informal Public Access, Planted Ancient Woodland Site	Ancient Semi Natural Woodland, Planted Ancient Woodland Site
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A compartment of mature conifers and mixed broad leaves, on a moderately steep south west facing slope. The conifer component consists of Scots and Corsican pine and was last thinned in 2004 following creation of a new extraction track. Beech, Sweet Chestnut and Oak are the most common broadleaves with a strong presence along the lower and upper woodland fringe. Isolated pockets of rhododendron can be found in the shrub layer. Ground flora is generally sparse (with the exception of bluebell), mostly occurring along the fringes or underneath the broadleaved crowns. Species include bluebell, grasses, moss, bramble, fern and wood sorrel.

1e	13.39	Beech	1950	PAWS restoration	Archaeological features, Gullies/Deep Valleys/Uneven/Rocky ground, People issues (+tve & -tve), Very steep slope/cliff/quarry/mine shafts/sink holes etc	Archaeological Feature, Informal Public Access, Planted Ancient Woodland Site	Ancient Semi Natural Woodland, Planted Ancient Woodland Site
<p>An area of mature broadleaves interspersed with Scot's pine on a moderately steep south west facing slope, lying just to the east of the sections of sub-compartment 1d. Beech is the dominant broadleaved species followed by Sweet chestnut and sycamore and to a lesser extent oak, ash and Scots pine. Isolated pockets of rhododendron can be found in the shrub layer. Ground flora is present but sporadic and species include bluebell, grasses, bracken, fern and moss.</p>							
1f	7.05	Open ground	1950	Non-wood habitat	Archaeological features, Mostly wet ground/exposed site, No/poor vehicular access within the site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Archaeological Feature, Informal Public Access, Planted Ancient Woodland Site	Ancient Woodland Site, Scheduled Ancient Monument
<p>Area of open ground and scrub at the top of the site, which varies greatly in steepness. Trees are few and random. Several archaeological features are also present - Half Moon Napoleonic camp, Roman field enclosure and the listed World War Two radar station. Ground flora is dominant and species include grasses, bramble and bracken. Exposure of this area has proved a constraint in previous planting. A public right of way, the designated route for the Wales Cast Path runs along the northern boundary of the compartment.</p>							
1g	3.34	Sitka spruce	1960	PAWS restoration	Mostly wet ground/exposed site, No/poor vehicular access within the site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Archaeological Feature, Informal Public Access, Planted Ancient Woodland Site	Planted Ancient Woodland Site

A steeply sloping stand adjacent to subcompartment 1h, composed of a dense conifer stand dominated by Sitka spruce and Corsican pine and last thinned in 2006. Semi mature oak and beech are also present with accompanying areas of ground flora, mainly bluebells. There are also some glades present, dominated by bracken and bramble. This area will be treated as a restoration priority in this plan period due to the dense shade cast on the remnant features.

1h	2.34	Beech	1960	PAWS restoration	Mostly wet ground/exposed site, No/poor vehicular access within the site	Archaeological Feature, Informal Public Access, Planted Ancient Woodland Site	Ancient Semi Natural Woodland, Planted Ancient Woodland Site
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A steeply sloping stand adjacent to subcompartment 1a on the other side of the byway to Crugwyllt-fawr, and including a stone wall along the lane. Composed of broadleaves where beech dominates the canopy along with sweet chestnut, oak, ash and sycamore. Small pockets of Scot's pine are also present, with a sporadic shrub layer of hazel and elder. Ground flora is mostly sparse, with the exception of bluebell, which is abundant within this aerea. Other ground flora species include bracken, grasses, primrose and moss. The Wales Coast Path runs down slope from the compartments northern boundary and leaves the site via the main entrance.

Appendix 2: Harvesting operations (20 years)

Forecast Year	Cpt	Operation Type	Work Area (ha)	Estimated vol/ha	Estimated total vol.
2017	1c	Thin	2.00	31	62.72
2017	1d	Thin	14.38	25	362.72
2017	1e	Thin	13.60	22	300
2018	1e	Thin	2.11	43	91.5
2018	1g	Thin	3.34	3	10
2019	1b	Thin	2.55	12	30
2019	1g	Selective Fell	3.08	16	50
2019	1g	Thin	3.34	33	110
2019	1h	Thin	2.34	26	60
2024	1c	Thin	5.29	9	50
2024	1g	Thin	3.08	16	50
2026	1d	Thin	14.38	35	500
2026	1e	Thin	2.11	24	50

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.