



COED CADW
WOODLAND
TRUST

Coed Ffos Las

Management Plan 2017-2022

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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 Consequently this printed version may quickly become out of date, particularly in relation to the planned work programme and on-going monitoring observations.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:	Coed Ffos Las
Location:	Carway
Grid reference:	SN471060, OS 1:50,000 Sheet No. N/A
Area:	50.05 hectares (123.68 acres)
Designations:	

2.0 SITE DESCRIPTION

2.1 Summary Description

Coed Ffos Las was bought by the Woodland Trust in 2014 to create a Centenary Wood to honour the special part Wales played in the First World War. This former colliery land and farmland, previously known as Maes Gwilym Farm, is 48.6 ha (120 acres) of rolling landscape with panoramic coastal views. The Trust plans to plant 90,000 trees by 2018 and over time the site will develop into beautiful, inspirational woodland with free access for all. There will be wooded areas with flower-rich glades, ponds and wildflower meadows, and a formal place of remembrance. It will also link with woodland at Ffos Las Racecourse to provide diverse and valuable habitats for plants and wildlife.

2.2 Extended Description

Coed Ffos Las is a new predominantly broadleaf woodland being created to mark the centenary of the First World War and is approximately 125 acres of former arable and livestock farming land located on the lower slopes Gwendreath Valley, overlooking Carmarthen bay. The centenary wood will tell the stories of the First World war (FWW) and the vital role woods and trees played during this conflict, marked by a commemorative feature and interpretive trail across the site.

Around a third of the site is listed as a PLANT! site, where trees have been planted as part of the Welsh Governments 'plant a tree for every child born or adopted'

The site, previous to its farming and now woodland practices, was used for storage of 'over-burden' and machinery from the next door Ffos Las open cast coal mine where the Ffos Las racecourse is located today. Previous to the mining activity, the site formed part of the former 'Dyffryn Maes Gwilym' Farm holding, now long since demolished which historically was a low lying farm with areas of Ancient woodland now long since removed for coal mining.

This new wooded site being created will include areas of new woodland with areas of coppiced trees with longer term intentions to supply small diameter timber for wood products including fencing, high canopy trees for the main sections of the site and a series of inter-connected hedgerows with a network of open space for ground nesting birds and hunting territories for owls and other birds of prey which are a feature of the site and area overlooking the Carmarthen bay and in particular Cefn Sidan estuary and mudflats.

Parts of the site have been intentionally left unplanted to the gradual transition of ground nesting birds who currently nest on the site, to co-exist with the new woodland, having a gradual transition of bird species to woodland favouring species as the site develops. Other areas of the site are also classed as open space with the field patterns along the upper slopes retained and enriched with new trees including shelter belts, hedgerows and a grazed orchard to create a series of wildlife corridors along the older hedges on site, creating a new woodland 'type' and new territory for ground nesting birds as the lower slopes develop into woodland. Areas of scrub within these open areas will be allowed to develop.

In addition, site will include managed former mining spoil for wild flora to develop and new areas of standing and slow moving water to complement the existing network of ditches and stream to improve biodiversity value and alleviate erosion issues across the site where soil has been made up following mining activities

Public access is listed as informal with a series of permissive paths across the site including a section of all ability footpath leading the visitor to the site around the FWW interpretive areas of the site, with longer distance paths leading visitors across the site with occasional view points across the lower Gwendreath valley and Carmarthen bay.

3.0 PUBLIC ACCESS INFORMATION

3.1 Getting there

Main entrance and car park is located from the village of Carway off the main road with nearest postcode being SA17 4HE.

Accessing the site is located between 2 properties opposite the Bethel chapel and the village hall at the centre of the village. The access track is suitable for motor vehicles below 2m in height and not articulated which eventually leads to a small car park for around 16 vehicles including 2x disabled spaces.

The main entrance road is surfaced with tarmacadam with a large welcome sign 10 metres from the highway along the track and doubles as a public bridleway which runs for its entire length diverting off to the south side after 120 metres with occasional passing places.

3.2 Access / Walks

The new woodland site has a combination of new permissive footpaths across the entirety of the site which include compacted gravel surfaces suited to wheelchair users with shallow gradients taking the visitor to the sculpture at the centre of the new woodland, which are accessed from the main car parking area and mobility kissing gate which is RADAR key friendly. Further on and across the site are a series of grassed paths which extend for 3km and include footbridges and uneven surfaces.

4.0 LONG TERM POLICY

The site will be an established mixed broadleaf woodland with elements of high canopy and rotational coppice structures providing an array of timber products and wildlife habitats on site.

The wooded site will include areas of open ground and scrub habitat to favour ground nesting birds, insect life and wild flora existing on old remnants of brownfield industrial sites. Open field areas will feature hedges and small copse areas as well as infield trees such as fruit trees. A review of the success of the open ground habitat at the anniversary the first management plan period and may have triggered consideration of afforesting the remainder of the open ground either through planting or managed retreat if biodiversity measures were not achieved (re-location of ground nesting birds or decline in number or if grazing let unsuccessful). In general, areas of scrub will have been allowed to develop across the site to create a mosaic of sward and tree heights.

The new ponds and water features created to alleviate the flooding impacts of flash flooding along the manmade ditches and canalised streams on site will continue to provide enhancement for wildlife and the areas will be used by schools and community groups.

The network of permissive paths and access tracks, with sections suited to all abilities where possible, will be maintained accordingly to ensure they are free from defects. Drains and culverts will be effective in ensuring flooding potential is reduced.

Information boards will be maintained about the new woodland and about the role of woods and trees commemorating the First World War, providing context for the creation of the new woodland. The commemorative feature will continue to be the site's 'centrepiece' and create an ambiance of quiet reflection on site as well as providing interest and enjoyment through informal public access.

An annual public engagement programme will be provided where possible and include opportunities for volunteering.

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 Open Ground Habitat

Description

Open ground habitat consisting of a *Juncus affusus* / *acutiflorus*-*galium* rush pasture/marsh grassland occurring on damp, poorly drained and reclaimed soils as a result of re-instatement works from previous land use as over burden storage for the nearby open cast coal mine. The habitat lies on a gently sloping south west aspect and has little nearby tree or shrub cover with the occasional grey willow (*salix cinerea*) or clumps of common gorse (*Ulex europaeus*) around the edges of the area.

Significance

The habitat and poor quality of the soils allows small communities of wildflowers to develop with numerous Lepidoptera species observed including meadow brown and ringlets. The area is also suited habitat to a variety of ground nesting birds including over-summer Skylarks (*Alauda arvensis*) which are on the species red list along with Snipe, linnet and bullfinch. The open ground habitat also provides home to a various reptiles including common toad and mammals including Brown Hare, field vole and shrew. The open ground provides suited hunting territory for Tawny Owl.

Opportunities & Constraints

To maintain open ground habitat as a complex matrix of open space and woodland across the site, particularly the areas with most 'brown field' type conditions where soils are poor allowing communities of associated grasses and flowers to develop.

Constraints to management long term would include costs and development of scrub as woodland establishes but annual management on a rotational basis would alleviate this situation and should form part of the on-going site maintenance regime.

Factors Causing Change

Domination of the area through 'tussocky' sedges and soft rush dominating the area and establishment of significant scrub.

Development of woodland on site will long term change the dynamics of the bird populations on site, with long term transitional change to woodland bird species including woodcock and linnet and gradually reducing in number of ground nesting birds. These species will likely translocate to the more open field system found on the higher ground which will remain open for perpetuity.

Long term Objective (50 years+)

Maintain open space leading uphill/south east for the benefit of ground nest bird species, wildflower communities and heptofauna through annual maintenance regimes. When species colonies alter significantly such as where ground nesting bird pairs are unsustainable, consider allowance of woodland and scrub to develop further where appropriate and not causing significant impacts upon the open ground favouring species which exist on site.

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

Control of scrub and coarse vegetation including dense areas of soft rush through mechanical means at end of nesting season, and create low sward height basking areas for heptofauna to colonise.

Allow wet patches to develop within open ground around them to increase open ground diversity, creating a habitat map for each open ground area.

Carry out monitoring of ground nesting bird species and ground flora every 5 years at management plan review date.

Maintain open ground network of retained grazed fields through grazing licenses or mechanical cutting to act as transitional open ground as woodland develops elsewhere on site.

5.2 New Native Woodland

Description

Creation of new predominantly native broadleaf woodland began in 2014 with main planting taking place during 2016/17, planting around 38ha of the site in total. New woodland has been planted at 2500 per hectare to create wind firm woodland on an exposed site overlooking Carmarthen bay.

Open to the elements including the salinity of the sea air, the new woodland is predominantly an Oak, Alder woodland with sub species of Birch, willow, hawthorn, holly and occasional sweet chestnut, sycamore and lodge pole pine to aid establishment.

The new woodland lies on a varied terrain and ground conditions which are prone to water saturation probably due to compaction issues created as a result of former arable farming practices and mining activity within the area. Much of the site is planted on reclaimed land where the next door opencast mining activity stored its overburden. Following reclamation much of the site was put back but has left a mixed soil profile up to 1 metre deep in places, consisting of brown earth and stones ranging from boulder size to 25mm diameter.

Significance

This new woodland lies long the slopes of the Afon Morlais and alongside the former opencast coal mine of Ffos Las. Previous to the open cast workings and from historical maps, much of the area was wooded with a network of hedges and ancient woodland intersected by open ground pasture. This new woodland will help to heal the scars of the landscape and where possible and over time, recreate the landscape. The new site also borders the Jubilee woodland planted in 2012 to mark the anniversary of the Queen's Diamond Jubilee and will help to create a large un-interrupted woodland block on the lower slopes of the Gwendraeth valley.

Ecological connectivity in some parts of the area is poor following coal mining activities and this new woodland will help to re-connect the landscape.

Opportunities & Constraints

Opportunities include the chance to establish species rich and diverse new woodland with future resilience in mind through types of trees planted to how the trees are planted on site. The woodland creation element should include (where appropriate) a variance in woodland structure to consider areas of high canopy, coppice rotation and small scale timber production to aid future site management.

Constraints currently include planting where appropriate and to not dramatically impact upon other site key features and existing species. Also other constraints include tree species selection to cope with the harsh exposure the site currently receives from Carmarthen Bay and likely impact this exposure will have on overall establishment.

Other on site constraints include the poor ground conditions and waterlogging during winter months.

Nearby housing developments will impact upon the site design and influence where new woodland blocks will be created to avoid interfering with viewpoints and conflicts regarding tree safety for the future on site.

Other opportunities include creating sheltered glades to extend other site key features and enhance their habitats providing breeding grounds and sheltered corridors across the site. These can be achieved through site design.

Factors Causing Change

Tree diseases are a significant factor for new woodland. Historically this region would have been an Ash (*fraxinus excelsior*) dominated woodland type but since 2014 and with the onset of Ash Dieback this is no longer possible. It will be hoped that over time Ash seedlings will self-seed the site and remain as a component within the site and region.

Long term Objective (50 years+)

To establish new woodland on site this will include areas of High canopy, coppice and orchard in appropriate areas on site. Long term uses will include low volume timber production for domestic markets and materials for future use within the estate (i.e. fencing materials).

Open glades and patches within the woodland where failures have occurred within the planted crop will be allowed to develop after establishment term of 12 years from planting but un-planned gaps should not exceed 5% within given compartment.

Use of herbicides during establishment will only be applied where no alternative method of weed control is available or viable.

Create outdoor space for local people to access woodland easily.

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

Carry out baseline vegetation and bird survey on site to inform site design and layout within the first year of the plan period

Create new predominantly native woodland on the site within the management plan period with 80% establishment success by year 5.

Develop ideas leading to inform site design as to each woodland 'type' being created on site by seeking advice.

Woodland establishment should factor in future maintenance regimes which reduce the reliance upon the use of herbicides during establishment.

Create a series of accessible paths throughout the new woodland compartment and combine with interpretation elements.

5.3 Field Margins and Boundaries

Description

One of the main characteristics of the site at purchase was the extensive network of hedgerows on site. These take the form of tall historical hedges and field boundaries which are remnants of the sites history pre-industrialisation and open cast coal mining and form remnants of the sites former farm holding boundaries. Many of the hedges and boundaries on site are young plantations, planted following the reclamation of the site during the late 1990's and now form the major part of the sites canopy cover whilst woodland establishment takes place.

Significance

Many of the older hedges show signs of ancient woodland characteristics with evidence of woodland specialist species including bluebell, wood sorrel and dog's mercury present. The ancient hedges commanding position, age and structure would also be home to an array of micro flora, potential bird nesting species and home to large mammals such as Badger and Brown Hare.

The new hedge network (some 1.7km in 2015) is a diverse species mix of hawthorn, blackthorn, wild roses with occasional Ash, willow and holly planted around 1997. The exposure of the hedges means that they are now home to an array of lichens and form welcome shelter breaks from the exposure of the site. Many of these new hedges act as sanctuaries and corridors for mammals species including Brown hare and Badger and likely for pipestralle bats.

Offsite but nearby area a locally important Dormouse population which are a priority species for Carmarthenshire along with Brown Hare and fritillary species which will be reliant upon the hedges for breeding.

Opportunities & Constraints

Opportunity exists to map and extend this hedgerow network and connect to surrounding woodland features and other hedgerows. Also diversification of these hedges will be essential to improve resilience to disease threats such as Ash Dieback.

Factors Causing Change

Over-grazing by sheep due to lack of fencing means gaps and regeneration doesn't take place within the old site boundary.

Ash dieback will re-shape the species components of the key feature, particularly within the young hedges planted within the last 20 years or so.

New woodland creation plantings within close proximity to existing hedges will alter certain characteristics if site design doesn't allow for these as a key feature. Potential impacts could be to the micro flora found on the newer hedges.

Long term Objective (50 years+)

Maintain and extend a network of field boundaries and hedges around the upper slopes and grazed open ground habitat on site. Maintenance long terms will be by occasional mechanical means and Hedgelaying interventions to create an unbroken chain of hedges connecting the site to surrounding habitats and features.

Allow some hedges to become mature and enrich the surrounding landscape with trees.

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

Map existing network of hedges and undertake ecological assessment of their condition.

Look to establish and extend new hedges where needed to meet long term objectives. Use traditional 'laying' techniques to improve hedge structure where appropriate on rotational basis across site laying 1 given length of hedge every 2 to 3 year intervals to allow site to adapt and change gradually.

Fence hedges to allow for regeneration to take place and reduce grazing impacts.

5.4 Watercourses

Description

The watercourse on site are found in 2 separate channels being a Liner man-made canalised watercourse running north east to south and leading onto the Afon Morlais river which borders of the property for approximately 600 metres along the southern boundary.

Both stream and river have been impacted upon by local mining activity and are structurally laid out with man-made linings and embankments.

During heavy and peak flow both stream and river hold a significant volume of water which can lead to occasional flooding.

Significance

Both of the 2 watercourses provide valuable habitat locally with large mammal species such as Otter (*Lutra lutra*) having been seen on the Afon Morlais. The surrounding embankments of the river which boarder the property are south facing slopes consisting of nutrient poor, free draining mining spoil and soil conditions and as such allow for specialist plants and insects to establish including the Scarce Blue Damselfly, Dingy skipper and Small Blue butterfly, which rely on low level vegetation sward heights to populate.

Opportunities & Constraints

Opportunities exist to manage the vegetation heights annually to create a matrix of habitats within the areas surrounding the river corridors to help support the wildlife which exists there currently.

New tree planting should help reduce soil erosion created by surface water run-off from the former arable fields surrounding the small crosscutting stream on site.

Help reduce peak flow water volumes and speed of water along stream by installation of suitable water management equipment and infrastructure. This will create areas of slower moving water allowing for aquatic life to establish within the cross cutting stream.

Factors Causing Change

Establishment of large volumes of even aged scrub alongside the stream and river corridors

Erosion of surrounding former arable fields into watercourse either leading to potential blockages and flooding or soil debris build up along stream floor so reducing aquatic invertebrate potential

Long term Objective (50 years+)

To maintain a stable stream and river environment with areas of woodland, grassland and brownfield habitats within the watercourse corridor which support a variety of insect, mammal and birdlife and vegetation heights will be managed to complement this.

Create varied freshwater habitats including ponds and streams.

Invasive species will be monitored and controlled where possible and site will work with wider regionally based river and watercourse management.

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

Establish baseline survey and records of the 2 watercourses on site to gauge wildlife population dynamics.

Carry out watercourse engineering survey of embankments and related infrastructure to determine water capacity and potential issues which may arise.

Implement findings of engineering report where necessary.

Establish annual maintenance regime for watercourse management for flood prevention and control of invasive species.

Manage surrounding habitat annually to create suitable habitat variance for insects and wild flora which rely upon habitat type.

Create areas of slow moving or standing water to alleviate pressures further down stream and possible flooding issues.

5.5 Connecting People with woods & trees

Description

Coed Ffos Las lies within a redevelopment area of the lower Gwendreath valley. The area of land is a single block adjacent to the new Ffos Las racecourse and directly to the south of the village of Carway, north of Llanelli with view across to the coast on a clear day. The site is 120 acres in size and will be planted with around 90K trees by 2019 and has a variety of habitats present outlined in the sites key features. The site has 3 public access points and 1 management only access point on site with one of the public entrances a dual purpose for vehicles and pedestrians. To the southern boundary is a public bridleway which follows the property boundary alongside the new housing development into a wider more extensive series of bridleway access tracks.

The land itself is former open cast mining land that has been restored and is now in agricultural use being planted to create the new woodland site and lies on graduating slopes relatively close to the M4 corridor and regional attractions within west Wales. A population of over 461,000 people (almost a sixth of the entire Welsh population) live within a 20 miles radius - population centres being Swansea, Llanelli, Carmarthen and Kidwelly.

Carway (local village) is a small village with a population of around 600. With a new development of around 500+ houses on the land of the former Dyffryn Aur and Maesgwilym farms. It is envisaged that the village population will double in the next decade or so. (This estate is being developed by Persimmon Homes). The area and village is a well-known former mining village, with historic deep mining taking place over the centuries followed by opencast mining from the 1950's to the 1990's . Since opencast works were completed the village has been transformed into a rural, agricultural, tourist and leisure attraction. Carway Village Park and recreation grounds was the first park in the U.K. to be built under the auspices of The Miners Welfare Association

The new woodland being created should have the first impressions of being welcoming with large roadside entrance signs and a brown tourism sign directing vehicles from the main highway. The main entrance has the feel of an old farm entrance with more formal features such as signs and bollards but retaining traditional features such as stone walls, layed hedges and the former Maes Gwilym farm gate approximately half way along the main entrance track. Works to improve the main entrance and car parking area as well as the sites interpretive elements will be completed by 2019. The site is one of eleven Trust sites within Carmarthenshire and one of 3 of the Trusts 'Welcoming Sites' program.

Significance

Next door to the Ffos Las racecourse, which the Woodland Trust planted a 64 acre diamond wood in 2012 as part of the Jubilee woods project, the site has been identified as a high status/priority woodland creation site by the National Assembly's Western Valleys Initiative.

As one of four in the UK being created to commemorate the first world war (FWW) this new woodland is unique in Wales with the purpose of telling the story of woods and trees role during the conflict as well as creating a reflective and positive sense of place within an evolving and healing landscape. As part of the sites 'sense of place', the new woodland will aim to reflect upon the FWW and role of woods and trees during the conflict. The site is also part of the Welsh Governments plant a tree for every child born strategy known as 'PLANT!' which will help to create a feel of 'new life' following conflict.

Previously in the area the Jubilee Woods project engaged 12 schools took part in the planting opportunity (2 schools attended twice) which equates to approx. 450 children taking part in planting at Ffos Las racecourse. In March 2015, the local primary school, Carway primary joined us to plant the first 1000 trees at Coed Ffos Las showing the local interest and potential. The relationship with the schools locally is particularly important as the school have no real outdoors facilities and we would look to create a long term relationship with the children and the wood on their doorstep. Therefore we will be engaging the schools in a number of ways throughout the woods' creation.

Supporters Locally amount to around 3500 supporters within a 60 minute drive of the site (data accurate as of 2015) offering a new space to explore and learn.

Opportunities & Constraints

The Gwendreath valley (in which Ffos Las is located) is part of a Western Valleys strategic regeneration area identified by the Welsh Government as a priority for investment to regenerate deprived communities following the decline of mining and other heavy industries. One of the themes for investment is the environment and Ffos Las has been identified as one of the highest priority new woodland opportunities in the Western Valleys Woodland Plan.

Ecological surveys have shown opportunities to build the profile of the site as an exemplar of pollinator habitats. A number of existing non Trust projects in Wales may be strategic partners for us. This could also unlock grant funding to engage people in the site's development and on-going care through one-off events and longer term volunteering opportunities to deliver on site wardening role and practical task days and off site talks and engagements as well as helping to monitor the site long term.

The Welsh Government is supportive of community events that commemorate the FWW. First Minister stated he wanted education and community events to play a central role so this presents a framework in which to help deliver key messaging about woods and trees and their involvement in underpinning the FWW.

There are 212 schools within 18 miles of Coed Ffos Las of which 172 take KS2 children which offer opportunity for education engagement

The site has a wide variety of habitat features and supporter journey opportunities including volunteering opportunities and opportunities to create an information hub for the role of and importance of woods and trees during the first world war leading onto the creation of the Forestry commission. This could be carried out by on site activities with space available for large scale events and through social media connections.

Site constraints include the lack of shelter during bad weather and muddy conditions underfoot during winter months making winter events from October to end of February difficult.

Factors Causing Change

Local developments such as increases in housing will impact upon the site. provision has been put in place to mitigate this through the installation of new surfaced paths but it is possible that these will require further investment if housing numbers swell putting pressure on the site. Similar issues can be said for the provision of adequate parking facilities on site also.

Other factors impacting on the site include the increased use of the site by dog walkers where the site becomes a venue for professional dog walking companies and/or local users not picking up dog waste after each visit leading to a poor first impression and impact upon Trust events on site due to public health issues.

Other factors which could cause change are issues which affect the main access track purchased in 2017. Although the Trust is the legal owner, covenants, way leaves and rights exist on this track which can impact upon first impressions by visitors, damaged caused by services installations and anti social behaviour issues if the track were to become a target for illicit behaviour.

Long term Objective (50 years+)

To create a new woodland with interprets the role of woods and trees during the first world war conflict through use of areas of open space to host events, on site information panels and way marked trails.

The site will offer a variety of access routes and options for visitors of all abilities and include a number of well maintained entrances with welcoming signage to meet Trust specifications.

Local people will value the site and become involved in the site in some way possibly through volunteering. Local schools will use the site as a venue for outdoor learning and word of mouth will help to promote the work of the trust and the site

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

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	6.51	Open ground	2015	Non-wood habitat	Housing/infrastructure, structures & water features on or adjacent to site, Landscape factors	Connecting People with woods & trees	
<p>Former arable fields located on former open-cast overburden site, reclaimed in late 1990's. Site is low lying and rises to man made canalised stream to eastern edge of compartment, which transects the site from north to south. Soil type is mixed brown earth, waterlogged in places with lying surface water during winter conditions.</p> <p>Vegetation consists of self set soft rush, gorse and coarse grasses. This habitat provides suitable conditions for ground nesting birds including skylark and lapwing.</p> <p>Compartment is surrounded by housing development along the southern boundary and transected by a management access track with ditches and culverts alongside and leads to the main road in the village of Carway along the site access track purchased in 2017 which has a large mature hedgerow along the southern boundary and housing at north and southern boundary close to the roadside.</p>							
1b	6.20	Oak (sessile)	2016	Wood establishment	Gullies/Deep Valleys/Uneven/Rocky ground, Mostly wet ground/exposed site	Connecting People with woods & trees	
<p>This compartment is split into 2 areas of mixed broadleaved tree planted at 2500 trees/ha on moderately sloping ground facing westerly direction. Soil is deep brown earth and stony in places and water-logs during wet conditions.</p> <p>Both areas of new woodland have been planted in 2016 and form the main 'leading edge' to the planned high canopy woodland block of cpt 3a and are exposed to prevailing winds hence the inclusion of shrub species such as Hazel, willow and holly. The woodland compartment also provide a backdrop to the First World War centenary woodland commemorative feature and interpretive components of the site.</p> <p>The Compartment is surrounded by open ground to the south west and lies to the north and east of the main stoned management access track and is cross cut by open ditches and culverts. To the east of the smaller sub section of this compartment is a canalised stream which cross-sects the site.</p>							

2a	1.70	Woody shrubs	2015	Non-wood habitat	Gullies/Deep Valleys/Uneven/Rocky ground, Housing/infrastructure, structures & water features on or adjacent to site, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Connecting People with woods & trees	
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This compartment follows the southern site boundary and runs alongside the Afon Morlais and former field edges to the northeast corner of the site. The track bed and verges support a diverse and species-rich range of dry and wet grassland communities with small patches of standing water and fringing wet woodland and dry scrub. Soil conditions are comprised of shallow brown earths and colliery spoil which is loose and undulating.

Where the track meets the channel of the Afon Morlais) at the west end it runs along the top of a moderately steep bank sloping down to the channel. A low growing scrub has spread across most of the bank comprised mainly of common gorse, hazel, birch, sessile oak and bramble. This is likely to be of value as breeding habitat for birds as well as providing wildlife cover for a range of other species.

Where scrub has not yet developed there is however patches of flower-rich mesotrophic grassland exhibiting a good diversity of plants that add significantly to the ecological interest of this compartment.

A permissive footpath runs the entire length of this compartment following the old line of the mine workings leading off into the upper slopes of the site and new woodland compartments of 3a, 3b and d.

3a	13.89	Sessile oak	2016	High forest	Mostly wet ground/exposed site	Connecting People with woods & trees	
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This compartment is a moderately sloping former over arable field reclaimed following the nearby Ffos las open cast reclamation around 1999. The compartment slopes south west towards the Afon Morlais with current self seeded vegetation including soft rush, creeping buttercup and occasional Salix species. Soil conditions contain clay and are frequently water-logged during wet conditions. This compartment was planted with predominately broadleaf species including Oak, Alder, Aspen, Holly and Hornbeam during winter 2016/17 and is the main compartment for the PLANT! funded sections of the site.

The site is wind-swept with dramatic views over the Carmarthen estuary and as a result is impacted upon by salt water spray and strong winds. Part of the site is intersected by permissive footpaths and boarded by a native broadleaf hedgerow planted in 2017 separating this compartment and Cpt 2a.

3b	3.14	Sweet chestnut	2017	Coppice		Connecting People with woods & trees	
<p>The compartment forms part of the most easterly boundary of the site, in a sheltered south westerly aspect, with semi mature pole stage trees to the south and west. Formally arable fields, this compartment was planted as a coppice during 2016 with high proportions of sweet chestnut, hazel and alder surrounded by a native hedgerow along the eastern boundary with nearby agricultural fields.</p> <p>Brown hare are a component of this part of the site and can be regularly seen.</p> <p>The new permissive footpath transects part of this compartment leading from the village of Carway in a circular walk from Cpt 2a.</p>							
3c	0.98	Sessile oak	2017	Wood establishment		Connecting People with woods & trees	
<p>Compartment 3c is fragmented into 2 areas along the northern boundary with College Farm.</p> <p>Bordering an old hedgerow consisting of predominately Ash, these two small compartments were planted in 2016 making up the majority of woodland type in this given area, to buffer the ancient hedgerow and small isolated ancient woodland block along the northern boundary which has interest by way of ancient woodland ground flora including bluebell and golden leaved saxifrage, although not listed as such on the Ancient woodland Inventory 2011. The new woodland compartments are bordered on 3 sides by open agricultural fields interconnected by a series of existing and new hedgerows and will provide a 'copse' structure into the future with a mix of medium to high canopy tree species planted along with a higher component of shrub species mix.</p>							
3d	2.10	Ash	1999	High forest	Diseases	Connecting People with woods & trees	
<p>This compartment consists of a narrow belt of planted native woodland (>15 yrs old) and separates compartments 3a and 3b. The woodland is un-thinned and very dense, comprised of downy birch, oak, grey/goat willow, wild cherry and larch as well as some other broadleaved non native species. This compartment is continuous with wet woodland habitats to the south of the site a provides a good feeding corridor for species such as bats as well as nesting opportunities for birds.</p> <p>A permissive footpath transects part of this compartment to the south forming part of the circular walk around the site.</p>							
3e	4.00	Hazel	2017	Coppice	Mostly wet ground/exposed site	Connecting People with woods & trees	

North facing slope which adjoins the property boundary with College Farm. This compartment is bordered by planted hedgerows less than 20 years old which have a good presence of lichen interest. Hedges consist of predominantly thorn species and Ash species.

Compartment is wet at the lower slope towards the property boundary and has been allocated for the creation of a wetland feature by the way of a pond to alleviate soil erosion issues caused by flash flooding from surface water run off from surrounding fields. The remaining area will be planted to create a coppice area of hazel, alder and birch with Pendunculate Oak standards to provide a resource of small diameter timber for the future such as fencing stakes and firewood bundles.

4a	10.50	Crab apple	2014	Wood pasture	Management factors (eg grazing etc)	Connecting People with woods & trees	
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This compartment is made up of a small field system with planted hedgerows around 15 years old combined with newly planted field boundaries in 2016. These sub-divided fields are located around a former farming residence which no longer exists. Most of the upper ground at the eastern end exhibit variable grass cover and often cover is low. In some areas such as in parts cultivated oats are growing amongst other grasses and herbs indicating past arable activities. The flora here shows more affinity with 'open ground' communities characteristic of post-arable vegetation, or situations with frequent inundation or intermittent standing water.

New hedges have been planted in 2017 to replace open gaps in hedges and re-connect others to enhance overall biodiversity of the compartment and fruit trees are to be planted in field adjoining cpt 3e to re-create a former orchard which was likely on site before the open cast mining activities. This area will be a grazed orchard combined with tree enriched fields adjacent.

This compartment can be accessed from the eastern track and on foot from lower sections of the site.

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.