Woodland Trust Management Plan

Cwm George & Casehill Woods (Plan period – 2023 to 2028)

WOODLAND TRUST

Management Plan Content Page

Introduction to the Woodland Trust Estate

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

Our Vision is:

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

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

- **Create Woodland** – championing the need to hugely increase the UK's native woodland and trees.
- **Protect Woodland** – fighting to defend native woodland, especially irreplaceable ancient woodland and veteran trees; there should be no loss of ancient woodland
- **Restore Woodland** – ensuring the sensitive restoration of all damaged ancient woodland and the re-creation of native wooded landscapes.

Management of the Woodland Trust Estate

All our sites have a management plan which is freely accessible via our website

www.woodlandtrust.org.uk

Our woods are managed to the UK Woodland Assurance Standard (UKWAS) and are certified with the Forest Stewardship Council® (FSC®) under licence FSC-C009406 and through independent audit.

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

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

2. We establish new native woodland for all the positive reasons set out in our Conservation Principles, preferably using natural regeneration but often by planting trees, particularly when there are opportunities for involving people.

3. We provide free public access to woods for quiet, informal recreation and our woods are managed to make them accessible, welcoming and safe. Where possible, we pro-actively engage with people to help them appreciate the value of woods and trees.

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

7. Land and woods can generate income both from the sustainable harvesting of wood products and the delivery of other services. We therefore consider the appropriateness of opportunities to generate income from our Estate to help support our aims.

8. We work with neighbours, local people, organisations and other stakeholders in developing the management of our woods. We recognise the benefits of local community woodland ownership and management. Where appropriate we encourage our woods to be used for local woodland, conservation, education and access initiatives.

9. We use and offer the Estate where appropriate, for the purpose of demonstration, evidence gathering and research associated with the conservation, recreational and sustainable management of woodlands. We maintain a network of sites for long-term monitoring and trials leading to reductions in plastics and pesticides.

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

The Public Management Plan

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

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

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

Please either consult The Woodland Trust website

www.woodlandtrust.org.uk

or contact the Woodland Trust

operations@woodlandtrust.org.uk

to confirm details of the current management programme.

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

Location and Access

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

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

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

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

The Management Plan

SITE DETAILS

Cwm George & Casehill Woods

Location:	Dinas Powys Grid reference: ST155724 OS 1:50,000 Sheet No. 171
Area:	84.43 hectares (208.63 acres)
External Designations:	Ancient Woodland Site, Planted Ancient Woodland Site, Special Landscape Area
Internal Designations:	Welcoming Sites Programme

SITE DESCRIPTION

Cwm George and Casehill Woods are found to the west of Cardiff, between the villages of Dinas Powys and Michaelston-le-Pit. The site forms the boundary of the urban area of Dinas Powys and the former parkland landscape Cwrt yr Ala Park. Neighbouring land use includes arable land, woodland and grazing land. The woodlands are part of a concentration of ancient woodland to the west of Cardiff.

The site lies across two main bedrock formations comprising of black rock, carbiniforous limestone to the west and mercia calcarnenite mudstone to the east with the two merging within the narrow wooded gorge, referred to as the 'Cwm' locally. The presence of these two bedrock formations, intertwined with open areas of freely draining circum-neutral brown soils, and provide a diverse range of woodland habitat variations, including a diverse and scarce array of ground flora and botanical interest.

Through a series of land acquisitions the site has developed into a complex of habitats and is important for planted ancient woodland restoration and the development of new native woodland. The main restoration phase has been completed with the removal of larch from the site. It now consists of mixed broadleaved woodland dominated by Oak and Ash with frequent canopy spcies including Field Maple, Wild Cherry, Elm and Rowan throughout. There are also areas dominated by Beech from former plantings and natural colonisation. Beech is now considered to be a part of the woodland and will not be actively removed unless required as part of the sites Woodland Condition Assessment (WCA) undertaken at plan review. Both Ancient Semi Natural Woodland and Planted ancient Woodland has been recognised as key features for the site.

The existing woodlands of Cwm George and Casehill have been linked by new native woodland plantings on former improved agricultural land. Plantings include native species for the area such as oak, ash and a range of shrub species. New native woodland has been identified as a key feature for the site. Extensive areas of the grassland have been left un-planted and are being restored to species rich grassland, with the potential to develop botanical species associated with NVC MG6 Lolium perenne-Cynosaurus cristatus and NVC MG5 Centaureo-Cynosuretum grasslands with a margin of natural regeneration forming the fringes of the new and old woodlands so have been recognised by the inclusion of the grassland as a key feature.

A scheduled monument increases the interest of the site. The wooded hill fort is found within Cwm George Woods, known as the ‘Tyn y Coed’ earthwork and ‘Southern Banks’. The specific management requirement of this important archaeological feature has been recognised as a key feature. Across the site are a series of historical features including world war 2 infrastructure, buildings and remnants of post medieval industrial landscapes and evidence of historic charcoal production within the wooded areas on site. The series of woodland and meadows form part of the essential setting for the Cwrt yr Arla Grade II listed parkland and special landscape area.

The woodlands of Cwm George and Casehill are well used by the public, with local village populations within easy walking distance and larger urban populations of Cardiff and its suburbs within close proximity. Small parking facilities exist, and an extensive network of permissive footpaths and bridleways has been added to the existing public footpath network to allow access throughout the site. The value of the site for informal public access has been recognised as a key feature, with medium to high levels of annual visits reaching an estimated 50K visits per annum. The extensive permissive bridleway, forms part of the one of the longest permissive bridle paths in the Vale of Glamorgan as well as a network of permissive and public footpaths extending to around 5km

LONG TERM POLICY

In fifty years time Cwm George and Casehill Woods will be a semi-natural woodland with a diverse species and age composition, primarily dominated by native species and with diverse, well developed shrub and field layers, representative of the surviving ancient woodland components currently found within the existing areas of ancient woodland. Scattered, over-mature conifers will remain in planted ancient woodland areas but will not be regenerating significantly or pose a threat to ancient woodland remnants.

The area of the scheduled ancient monument will continue to be wooded and managed to retain an open nature to permit appreciation of its historical attributes. Mature trees will also be managed ensuring that the integrity of the monument is retained.

Those areas of planted woodland will have matured into established woodland and begun taking on the characteristics of the surrounding semi-natural woodland. The grassland areas will be retained through a regime of cutting, favouring an increase in species diversity.

The site will be enjoyed by a high number and variety of users including pedestrian and equestrian groups and the network of footpaths and infrastructure will be maintained to accommodate this high level of usage.

KEY FEATURES

4.1 f1 Ancient Woodland Site

Description

The greater part of Cwm George & Casehill Woods (>50ha) comprises ancient woodland of one classification or another. These classifications include areas of Ancient Semi Natural Woodlands (ASNW) or secured Plantation on Ancient Woodland (PAWS). The majority of this can be found within Cpts 1, 2, 3 and 5 and each area carries an associated historic name: Park Wood, Beauville Wood, Coed Penllwynog, Hales Wood, Coed Clwyd-gwyn, Cwm George, Newland Wood, Case Hill Wood and Coedwaunwyllt. Small areas of these compartments possibly could be secondary in origin but share many characteristics of ancient woodland and are adjoining known areas of ancient woodland so are treated as part of this feature. In 2011 the areas of ancient woodland increased following the periodic national ancient woodland inventory being revised so it is possible that much more of the surrounding woodlands on and adjoining the site are indeed ancient in origin.

Much of this wood has been more-or-less intensively managed and modified over time, with relict hazel coppice and surviving charcoal plateaus in Park Wood (cpt 1a) and extensive planting of both native broadleaves such as Oak and naturalised species including Beech, Horse Chestnut and Lime species. Areas of the site were clearfelled after WWII under the auspices of the Forestry Commission and replanted with Beech, Larch, Western Hemlock and Turkey Oak. These areas have since been secured through repeated thinning cycles under Trust management and the majority of the exotic non-native canopy trees have been gradually removed, now comprising <20% of the canopy, although planted Beech remains dominant in some areas: these tend to be the least structurally and species-diverse stands. The remaining 'natural' areas are associated with the fringes and steeper parts of the site where topography has precluded significant human intervention.

Ash and Oak are the main native canopy species, however there is a notable diversity of minor species such as Field Maple, Elm and possibly the largest small-leaved Lime grove in Wales outside of the Wye Valley. A diverse and robust shrub layer is present through much of the site including species such as spindle and privet. There are occasional veteran trees, and occasional to frequent deadwood specimens, including standing and fallen Ash. Open space – both temporary and permanent – is currently somewhat limited within the ancient woodland compartments (c2-3%) although much of the species' diversity tends to be strongly associated with ride edges and glades .
Within the area of ancient woodland there is a complex topography varying from level to steep and a full spectrum of aspects, creating a dynamic variation in canopy composition and ground floral arrays associated with ancient woodlands. The site lies on a frontier of Carboniferous limestone and Calcarenite Mudstone-dominated geology. This geological feature has created a varied and dynamic differences between the wooded areas on site, having similar but distinctly different features including canopy and ground floral species compositions, across a relatively small area.

Ancient woodland ground flora is frequent to abundant throughout, in particular within cpt 5. There is a rich

calcareous woodland flora including notable species such as rare Lords And Ladies species Arum italicum spp. Neglectum and other ancient woodland indicators including Dog's Mercury (Mercurialis perennis), Wild Garlic (Allium ursinum) and Herb Paris (Paris quadrifolia). Welsh Polypody (Polypodium cambricum), first discovered in 1668, is found on the cliff sides of cpt 2a, the only known location for this plant in the wild. The long-established woodland land use has also helped to preserve many features of archaeological interest (see KF 3 Archaeological Feature).

Significance

Cwm George & Casehill Woods is among the largest remaining ancient woodland sites within the Vale of Glamorgan, a county with relatively low woodland cover (4.5%). Ancient woodland is among our most biodiverse habitats and cannot be recreated once lost, with the protection and restoration of ancient woodland being two of the Trust's core aims. Much of the ASNW in the region is under threat through development and infrastructure projects leaving the habitat fragmented, so Cwm George and Casehill Woods provides an important connecting habitat between ancient woodland on Cardiff's urban fringe and more rural woods within the Vale. Under Trust management, the woodland has been managed with conservation as the main objective and is not subject to the regime of clearfell and restocking that is typical of other large, wooded areas in the region, allowing for continuity of habitat over time.

The woodland is particularly diverse as a result of its unique geology and supports several rare and endemic species such as Arum italicum subsp. neglectum and Welsh Polypody (Polypodium cambricum), as well as providing a refuge for locally-proviant stands of uncommon native tree species such as Lime and so is of national significance.
Within the landscape, these woodlands form a major landscape feature, particularly as part of the Cwrt yr Arla landscape setting, being a dominant feature of the Cadoxton catchment and landscape setting views from the south, being visible from areas of Barry and Sully Moors.

Both the mature woodland and the more recent planting provide significant ecosystem services within the Cadoxton catchment. For instance, tree cover in the riparian zone and wider catchment here has an impact on the interception and penetration of rainfall and the rate at which water runs off into the surrounding water courses, of significance in a catchment prone to flooding. Alternative land uses would be likely to retain less water and contribute to watershed into the catchment.

Opportunities & Constraints

Opportunity to allow natural processes – including retention of ash effected by ash dieback - to occur without the constraint of public access along steep and inaccessible slopes.
Opportunity to enhance areas of small-leaved lime by occasional halo coppicing of mature specimens to reduce competition and removal of invasive species including cherry laurel, with potential for local provenance seed collection and propagation in future.
Opportunity for ongoing restoration interventions within beech-dominated stands with sufficient access for light-touch and sensitive thinning operations.

Constraints:
Steep slopes, narrow access roads, numerous watercourses and waterlogged clay soils constrain access for mechanised operations and timber extraction, which could risk soil erosion and siltation.
Historic features including charcoal platforms, embankments and archaeological remains, impact the options available for restoration of the site through mechanical means. Care and thoughtful preparation of forest interventions will necessary to avoid damage to the remnant historic features.
The presence of highly localised populations of rare flora requires careful planning of any silvilcultural interventions.
Protected species – including badger setts and a lesser horseshoe bat roost - are known to be present within the ancient woodland areas and localised records of Dormice Muscardinus avellanarius impact upon any woodland management intervention work, particularly with seasonal restriction due to species sensitivities.

Factors Causing Change

While temporary open space is currently quite limited within the ancient woodland blocks, ash dieback is likely to be a large contributor to the restructuring of the ash-dominated canopy, with temporary canopy gaps likely to be created in the short term. In the medium term, we may see the expansion of other species including Sessile Oak, Beech, Wych Elm, Sycamore and Lime (limited). Regeneration of trees and shrubs is currently relatively mixed, however, rapid seeding of planted Beech, colonising the niche left by declining Ash, would likely have a detrimental effect by reducing light levels within the woodland floor: Ash-dominated canopies typically have a dappled light characteristic and the seed viability and production of many characteristic ground flora species of the wood will decline should this relatively open, light habitat be lost.

Canopy loss could also in the short-term result in dense bramble growth which is likely to inhibit the ground flora although it may be less damaging in the long term than Beech shading. Invasive non-native species are present and could spread, becoming dominant if not subject to control e.g. Cherry laurel, Western Hemlock and Turkey Oak, although Hemlock in particular is regenerating very slowly at present.

Cwm George & Casehill Woods is popular with visitors, welcoming an estimated >50,000 visits per annum. Visitor impacts are likely to put pressure on ground flora and veteran trees through the proliferation of desire line paths and mountain bike trails, causing soil compaction, disturbance of wildlife and trampling/ uprooting of ground flora. Pollution may also have a detrimental impact, with dog faeces contamination and pollution effects from localised fly-tipping. Mismanaged campfires/ BBQs could cause localised soil damage or trigger more extensive wildfires.

Adjacent land use may have an impact through nitrogen deposition, spray drift from inorganic fertilisers and

encroachment or garden/ building waste dumping across the boundary. Development proposals within a 50m buffer – or within the footprint of the site - could cause unacceptable loss or damage and will be challenged.

Long term Objective (50 years+)

Cwm George & Casehill Woods will be a structurally and species-diverse woodland dominated by a range of site-native broadleaves including oak, ash, elm, field maple and lime. It will support abundant and varied ancient woodland indicator species throughout the ancient woodland area, including uncommon species characteristic of the site, such as Arum italicum subsp. neglectum and herb paris, with open glades, dappled shade, a scattering of over-mature and veteran trees and plentiful deadwood.

Invasive non-native species will be absent and exotic trees and shrubs such as turkey oak will be rare and not threatening the condition of the woodland. Even-aged stands – particularly of beech – will be restructured to reduce shading and open opportunities for native regeneration.
Visitor access will be contained within its existing footprint with no new paths and tracks created within currently undisturbed areas of ancient woodland.

Short term management Objectives for the plan period (5 years)
By the end of the plan period, no cherry laurel or turkey oak regeneration >1m in height will be present. By end 2024, the location of these species will have been mapped and control will be undertaken annually until eradication has been achieved. Beech regeneration, while tolerated, will remain scattered and occasional. Some intervention to maintain this balance within the woodland structure and canopy will be essential. No new desire lines or mountain bike trails will be tolerated in the area of ancient woodland on site. Existing recreational routes will be managed to contain their width and spread within ancient woodland, through surface improvements or provision of alternative routes where possible. Undertake annual / biennial surveys as part of visitor access inspections to monitor extent of unauthorised foot and mountain bike paths cutting through sensitive areas of ASNW. Close off any over-used or well-developed routes to avoid continuous damage. Review public access and bridleway usage to inform visitor access use and reduce pressures on high visitor number hot-spots. By 2025, the basal area of even-aged beech stands in cpts 1 and 2 will have been reduced by c 25% through irregular thinning. By 2028 when the Woodland Condition Assessment is repeated, some increase in the abundance or vigour of the AWI ground flora in these areas should be detectable. Retention of some of this felled timber will increase the local broadleaf deadwood component to c. 30m3/ ha Temporary open space will increase from current levels (c2-3%) to at least 5% of the ancient woodland area during this plan period, through the natural collapse of canopy ash/ storm events and ride side coppicing, particularly of hazel, in cpt 1. [See WCA findings 2023] Any site encroachment will be identified and challenged and dumped waste shall be cleared as it occurs. There will be no build-up of tipped materials.

4.2 f2 Archaeological Feature

Description
This site has an array of historical and cultural interest including a Scheduled Monument (SM). The SM is an early medieval hill fort known as 'Cwm George or Dinas Powys Hillfort' and a second earthwork feature known as the 'Southern Banks' or 'Tyn Y Coed'. Dinas Powys hillfort is the richest, best preserved and most fully excavated early medieval, with radio carbon dating setting earthworks back to 6th century BCE of this secular settlement in Wales. The hillfort was extensively excavated by Leslie Alcock in the late 1950s with more recent excavations in the early 2010's by Dr Andrew Seaman. The subsequent publication became a seminal work of early medieval archaeology (Alcock 1963) and Dinas Powys is often quoted as the classic type site of the early medieval west. The quality and quantity of the early medieval material from Dinas Powys is thus far unparalleled in Wales and the site offers unique insights into the socio-political and economic conditions of early medieval western Britain. The rest of the site has a series of archaeological and historical interest including a built in-situ WW2 Anderson shelter to the northern end of Cpt 1a, a series of charcoal hearths and platforms in Cpt. 1b, the medieval parish boundary ditch

which transects Park Wood, medieval water 'leet' and weir at between the Hillfort and Casehill Woods in Cpt. 4a and series of small pond features along the upper southern boundary of Cpt 5a (case hill woods). The north western sections of the site lie partially within the Special landscape area of Cwrt yr Arla basin and are part of the listed parks and gardens of Wales.

To the north of the site, and partially located within Cpt 4a, lies the historic landscape setting of Cwrt yr Arla, a Grade II listed parkland, which includes a significant view as part of the parks landscape setting with a view from the lawn below the house there are fine views down to the ponds and across the park beyond, overlooking 'Park Wood'

Significance

Site of national archaeological value. The Hillfort has much archaeological and cultural interest nationally and locally, forming the earliest forms of the nearby capital city. Ecological interest within this area is high, being home to areas of ancient woodland and woodland specialist ground flora including the rare Lords and Ladies species 'Arum spp. neglectum'. The monument is of national importance for its potential to enhance our knowledge of early medieval high status settlement. The monument forms an important element within the wider early medieval context and the scheduled area may be expected to contain a wide range of archaeological information, including chronological detail and evidence in regard to construction techniques and settlement activities.

Much of the surrounding landscape forms part of the Cwrt yr Arla special landscape area and Grade II listed Parkland (Ref: PGW(Gm)42(GLA)), with evidence of continuous human occupation, most notably through the series of defended enclosures and camps along a series of elevated positions from Dinas Powys to the suburbs of Cardiff and Caerau Hillfort.

Opportunities & Constraints

The main opportunities of the feature are within the engagement potential of the site, being a draw for new and existing audiences to the site, to help outline how the sites history has been shaped by people and the woodlands and trees that can be found there.

Constraints include the practical scope of undertaking works to the Hillfort area with access on foot only. This limits any major works including the renewing of the site footpath infrastructure and for tree safety purposes. Much of the Hillfort area is scheduled which again limits any access improvements to the area.

Other conservation factors such as the listed park and garden of this site affect any major or significant alterations to the landscape but don't materially influence any future management.

Factors Causing Change

Possible hazard from over-mature trees if not managed carefully, with risk to archaeological features disturbing ground conditions through windthrow and root-plate lifting. This could also include the 'scrub effect' as a result of canopy composition changes with the onset of Ash dieback, where coarse vegetation develops and encourages burrowing mammals within the Hillfort area itself.

Risk of damage to site from increased visitor numbers if promoted through creation of new public access routes and unauthorised routes and activities including vandalism, mountain bike trails and unauthorised magnetic field electrical search coil devices (metal detectors)

Change in canopy composition due to Ash dieback with risk of tree failure impacting upon earthworks.

Long term Objective (50 years+)

To protect this important monument from disturbance and damage and thus to ensure its preservation for the benefit of present and future generations to enjoy and learn from.

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

The monument will be subject to condition inspections at least once every 5 years to ensure the monument is not suffering deterioration or damage of any kind. If any problems are discovered, this will be brought to the attention of CADW.

This will include coppicing within the vicinity of the monument to open up the understorey and permit greater appreciation of its features. Interpretation installed in this plan period will seek to enhance understanding of this important site.

Site interpretation including creation of view points and 'windows' across the landscape from the elevated position will be created.

4.3 f3 New Native Woodland

Description

The new areas of woodland are located across the site and comprise of two main planting areas, linking Casehill Wood and Cwm George and the other extending Casehill Wood to form a more resilient wooded landscape feature. Both had high public involvement with an area being planted by members of the Welsh Government. A range of native tree species were planted including Ash, Wild Cherry, Hazel, Dogwood, Sessile Oak, Aspen, Alder and Field Maple. Millennium features were included on both new planting areas being two small areas of Scots Pine due to historic associations with the special landscape and historic landscape areas.

Significance

The presence of new native woodland on the edge of Casehill and Cwm George woods will have a buffering effect, protecting these valuable ancient woodlands from edge effects. This will create more stable conditions within the ancient woodland, which are preferable to ancient woodland specific species. In addition to this, new native woodland will provide a valuable visitor resource, by enabling the public to watch a new native woodland develop and adding interest to their visit. In support of this, there was a very positive response to public consultation regarding the Trust's acquisition and planting of the land.

Within the Vale of Glamorgan, woodland cover in terms of land use, is scattered and fragmented with much of the region given over to Arable, Mixed and Dairy Farming systems with only a 4.5% woodland land use within the county. Areas of new woodland are limited and often isolated of this productive landscape. New woodland is in effect a 'rare'

habitat within this landscape setting overall.

Other more recent areas of significance are the new woodland areas ability to allow areas of natural regeneration to develop within the canopy and wooded are, which will likely develop from surrounding areas of mature ASNW. Areas of new open spaces including glades and rides are an important transitional habitat feature, providing open habitat assemblages to support invertebrate environments. New woodland areas offer sheltered, often sunny and sparse areas of vegetation supporting solitary bees and wasps, but also include areas of scrub, an often over-looked important habitat feature.

Areas of new woodland will also create biodiversity corridors, linking areas of existing woodland such as at Cwm George and Casehill, helping to form a 'green bridge' between the two main wooded block, but also create a green link to adjoining existing hedgerows and shelterbelts found within the Cadoxton catchment area.

Opportunities & Constraints

Open areas particularly in the Casehill Meadows was seen as important during the consultation process. These lie adjacent to the parkland of Cwt yr Ala House, and was seen as an important component of these and the landscape setting.

Opportunities to help diversify the woodland setting where canopy might be dominated by one or two species, through planting of new woodland species that are associated but not found on site and within the surrounding landscape.

Ash die-back, whilst causing losses of habitat and host species for lower plant life and other important biological processes including fungal arrays, will help to re-structure the new woodland areas on a graduated approach. This will include the opening up of new canopy pockets for suppressed, light demanding species such as Sessile Oak to develop and form the new canopy composition. Increases in standing and fallen deadwood will become a feature for a short period of time, estimated at around 5 to 10 years, supporting important mychorrizal associations within the new woodland areas.

Factors Causing Change

Ash dieback will have a dramatic impact within the canopy overall, with the likely outcome of increases in scrub and coarse vegetation, as well as possibly reducing tree number overall and having the knock-on effect of increasing small mammal pressures, such as bark stripping' on other species. The reduction in natural bark characteristics of the canopy will also have an effect in time on lower plant life including bryophytes and lichens with loss of suitable host species.

Long term Objective (50 years+)

To ensure that native broadleaved woodland is successfully established and to ensure this remains healthy and vigorous so that, over the long-term, the wood becomes self-perpetuating through natural regeneration, ensuring its existence in perpetuity.

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

The trees and shrubs are now well established and no longer require weeding and beating-up and can be largely left alone to grow and close canopy, with monitoring restricted to once per plan period as part of the woodland condition observations. Beyond 2020, the plantings should have formed into dense thickets of young trees whose canopy has closed, creating the early stages of a woodland environment.

4.4 f4 Semi Natural Open Ground Habitat

Description
Areas of open grassland that range from improved ryegrass reseed to semi natural species rich grassland. These areas make up the open ground within the new native woodland planting areas. These areas consist of three fields extending over 6.7ha. The fields are typically surrounded by mature ancient semi-natural woodland. Where Cwm George borders the fields to the west of the Cadoxton river, Ash Fraxinus excelsior and Alder Alnus glutinosa standards over an understorey of Field Maple Acer campestre, Hazel Corylus avellana and Wych Elm Ulmus glabra extend along field boundaries. Casehill Wood lies on the eastern bank of the river and here, ancient semi-natural woodland with Beech Fagus sylvatica and Ash overhang the woodland edge along the field boundaries. The site, despite having a long evidence of agricultural working, does not follow the field patterns associated with agricultural enclosure, suggesting much of the open spaces have been managed and maintained as part of the historic parkland setting. Occasional, but notable veteran and ancient trees can be found scattered throughout the open fields on site and are noted within the catchment landscape. The Casehill Fields are nestled between Cwm George and Casehill Wood on low lying land (20-40m asl) gently sloping to the Cadoxton River which flows through open fields. The river corridor is mostly tree lined and adds further conservation interest. The field exhibits moderate species diversity with a particularly good display of common spotted orchids in June-July. The grassland is close in character to NVC MG5 Centaureo-Cynosuretum grassland. The Mill Field located to the south central part of the site between Casehill and Hillfort, A narrow field that runs north-south between Cwm George and Casehill Wood on almost level land. The field exhibited low species diversity and vigorous grasses Yorkshire fog Holcus lanatus and to a lesser degree Cocksfoot Dactylis glomerata have become dominant forming a tall grassy sward is developing. The Quarry Fields, situated on the western bank of the river, bordered on three sides by Cwm George Woodland and open fields to the north. The field slopes north east rising from 20m asl to 50m asl forming a moderately steep bank in part. The field exhibits moderate species diversity, also with a particularly good display of common spotted orchids in June-July. The grassland is close in character to NVC MG5 Centaureo-Cynosuretum grassland. Pen y Turnpike 'Millennium Wood' glades and rides; the grasslands are dominated by tall vigorous grasses that suppress other species, typically false oat grass, Yorkshire fog Holcus lanatus, rye grass (possibly Italian rye grass) and stands of creeping thistle Cirsium arvense. A range of common plants associated with disturbed grassland communities are also common including plants typically associated with abandoned ground and grassland such as cocksfoot, timothy, creeping buttercup, common hogweed, broad-leaved dock and common nettle. The plant diversity is low and the species present all commonly occur and most are associated with disturbed ground. Natural regeneration of trees, Ash in particular is taking place and if left unmanaged the rides will close up in time as the whole area gradually develops into native woodland over a

number of years.

Significance

Species rich grassland has significantly reduced since the last world war. The Trust has the opportunity to contribute to the biodiversity targets for this habitat type with areas of calcareous and neutral grassland forming part of an overall NVC MG5 type grassland community. Much of the Vale of Glamorgan landscape is dominated by arable or dairy farming practises. Cwm George and Casehill is significant by having a network of ancient woodlands, interspersed by open ground habitats. These form a complexity of woodland glades, groves and open wooded features providing foraging habitat for Noctule Bat and diverse invertebrate life including the Long-winged Conehead Grasshopper and Speckled Bush Cricket within the sward. This dynamic of woodland/grassland interface provides a well used network of habitat margins and foraging habitats. Significant features of this habitat are the ancient and veteran trees found occasionally within the meadows and meadow edges providing a historic record of the habitats management, and individual ecosystems within the open ground habitat itself.

In general, the remaining small and fragmented individual areas of MG5 grassland are rarely important for their bird interest in a national context although the large losses of such grasslands since WWII have undoubtedly contributed to the declines in farmland bird populations across Great Britain (Vickery et al 2001). Nonetheless, existing areas of MG5 may support 'generalist' farmland birds for breeding and/or foraging in summer or winter such as meadow pipit, skylark, yellowhammer, starling, fieldfare, species of gulls and rook. The grassland types can also provide a habitat for communities of macrofungi, including waxcaps and pinkgills.

Opportunities & Constraints

The opportunity exists to recreate species rich MG5 grassland. This would significantly enhance the biodiversity value of the woodland complex. Other NVC wet-grasslands more associated with riparian corridors could be investigated as part of the Cadoxton catchment Natural Flood Management (NFM) appraisals. These 'NFM' options could include riparian flood meadow work to re-attach the incised Cadoxton river with the adjoining flood plain through replication of natural processes including by removing man made features including agricultural drainage channels. This could have an adverse effect on the public accessibility of the site during prolonged wet periods due to flooding. Gradual change in grassland species to a wetter, water-logged soil is likely with the introduction of new NFM proposals.

Opportunity to develop future veteran trees through allowance of natural regeneration within the open ground habitats. This could be through carefully managed grassland management including hay cutting, leaving wider margin around current ancient and veteran trees.

Constraints to this include limitations of management access into the site, with the site being in effect split into 2 parts by the river Cadoxton. Access to these grasslands is via narrow country roads and across third party land holdings, making access with larger machinery more problematic.

Damage to grasslands through repeated footfall, dog waste and the risk of antisocial activity also make sale

of grassland habitats via a farm mowing license or grazing tenancy more difficult, leading to a more ad-hoc basis of management, depending very much on climatic extremes and levels of footfall within the meadow areas.

Factors Causing Change

Lack of intervention through hay meadow management (hay cut typically early July) and land summer/autumn or through pasture management, is likely to result in decline of characteristically features of the habitat, with domination of coarse vegetation and natural regeneration becoming dominant.

Although only 11 positive indicator species were recorded in cpt 1a, a small number of additional plant species occurred outside the sample points. A significant display of common spotted orchids with several groups of more than 10 specimens in each were noted. Grass species associated with NVC MG5 neutral grassland of the lowlands, such as crested dogs tail, sweet vernal grass and common bent are frequent throughout the samples. Conversely, there is relatively low cover of coarse grasses associated with agricultural enrichment such as cocksfoot and Yorkshire fog. Although Yorkshire fog is present across the field, it rarely exceeded 50% cover in the samples. The more vigorous, coarse species such as cocksfoot and false oat grass were virtually absent. This may be partly explained by the thinner soils on the limestone outcrops. The high frequency of yellow rattle could be regarded as a positive conservation feature. This species has appeared since the field was surveyed in 2000 and commonly becomes established in a more open sward where build-up of plant litter is discouraged (by late summer-autumn grazing/hay making). Although all of the samples failed on the build-up of litter, this did not appear to be detrimental to the growth and spread of yellow rattle at this stage. This species requires an open sward with areas of bare soil to allow annual germination and its presence tends to suppress grasses. Where yellow rattle is frequent, the sward is generally more diverse as the open vegetation structure conditions required by this plant encourages other plant species to set seed. The appearance of this species may in time encourage a greater diversity of flowering plants to become established. Dense thickets of bramble occur but are being held in check by grazing/mowing. These provide useful nectar for insects and should be retained.

Other factors causing change include the increased foot fall and visitor number on site since the last botanical survey in 2017. During this time increased erosion has been noted on site as a result of localised lockdown measures during the COVID 19 pandemic. Much of the grasslands within close proximity to the Cadoxton river have become heavily trampled and eroded during summer month and that in conjunction with ad-hoc cutting as part of a structured mowing license regime on site, due to external factors, has resulted in poor sward diversity and reduction in the overall area of grassland not impacted upon. Increases from dog walking will also affect the site over time which is shown by the development of vegetation including Nettles due to increases in ammonia (from dog urine).

The component plant species of MG5 grassland mostly belong to the southern temperate regions, widespread temperate and temperate biogeographical elements of the British flora (Preston & Hill 1997). This suggests MG5 Grasslands might be relatively resilient to climate change scenarios, especially those related to temperature. It is though possibly thought that with periods of warmer and drier spring periods, as well as drier summers, this will only favour stress tolerant species that are more deep rooted and result in changes in species composition generally as a response to climate change. This will have a dramatic impact on the management regime of the site, by effecting the viability of a farm tenancy arrangement, with grass cut for hay or haylage purposes and benefitting the grassland restoration at the same time. The difficulties of potential grazing the grassland areas with high levels of visitor and dog walking numbers on site, mean only one option of cut and collecting of the sward is viable currently. Opportunities to include periodic grazing may be an

option if in abilities to market and 'sell' the haylage crop continue to become a factor of the site.

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Long term Objective (50 years+)

The areas of open grassland will be managed to increase diversity of the grassland species, which will support species indicative of lowland/ floodplain meadows. The series of permissive and public footpaths will be maintained to avoid continual damage to the surrounding grasslands. There will be no loss of permanent open space, which shall be maintained at least its current extent (c12ha).

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

By 2028, there will have been an increase in the distribution and abundance of indicator species for MG5 grasslands within the Cadoxton (cpt 4a) and Casehill Fields (cpt 1a) when compared to the baseline survey undertaken in 2016 and there will be minimal build-up of thatch. (Grassland survey at Casehill Fields and Pen-y-turnpike rides, Llanfihangel-y-pwl/Michaelston-le-pit, Cardiff. July 2016.) The area of bare poached ground resulting from high visitor footfall with be reduced by at least 10%. The extent of the rides within Pen y Turnpike Wood will remain at its current level. Coarse, ruderal species and competitive grasses such as cocksfoot and false oat grass will be only occasional. Some areas of rank, tussocky grassland will be present and retained for their habitat value to invertebrates and small mammals, but scrub and bramble will be only occasional along ride margins.

Where paths cross the root plates of veteran trees, these will be diverted to reduce root compaction and allow retention of standing and fallen deadwood. 3-4 new parkland trees will be established as 'future veterans'.

Open meadows within cpt 4a and cpt 1 will be cut no earlier than late July for haylage, allowing time for key indicator species to set seed. Periodic harrowing will be undertaken to create gaps for seed to settle. Removal of arisings will keep nutrient levels low. Rides within young planted woodland areas will be cut and collected twice annually, in mid-summer (July-August) and again in late summer-autumn each year, cutting the sward to 40-60mm each time. Tussocky, rank grassland will be retained in patches. Rank grassland within Pen y Turnpike (cpt 6a) will be cut once every 2-3 years. Elsewhere it will have an annual cut during late autumn, to prevent excessive bramble and tree species establishing.
Casehill fields (cpt 4a) will be managed through annual grazing and mowing licenses/tenancies if feasible, if not, these will be cut and collected. Cutting or grazing will occur for two years and then the fields left unmanaged for the third year.

Monitoring of visitor numbers and mapping of the extent of the current poaching and erosion will be undertaken to quantify the pressures on site and help build the financial business case for the visitor improvements. New path surfacing options will be investigated which will help to contain the width and proliferation of muddy walking routes, to prevent long term compaction and erosion issues with increases in visitor footfall.

Review of grassland drainage will be undertaken in conjunction with the Natural Flood Management (NFM) schemes being developed along the Cadoxton catchment area.

4.5 f5 Connecting People with woods & trees

Description

An extensive network of both public and permissive footpaths allow access throughout the site, with a range of surfaces and walk options from easy to strenuous in grade. There is also extensive provision for equestrian use with a network of bridleways in Park Wood linked to Casehill wood via the meadows. The site is connected to the wider public footpath network by the 'Vale Ways' routes 1 & 8 and is within a short walk from the villages of Michaelston-le-pit and Dinas Powys.

The site lies within an important landscape setting and restricted planning and development area due to historical and cultural landscape features as well as a semi-natural valley. Sweeping views across the Cwrt yr Arla basin are an important feature of this landscape

The site has an on site car park with space for 8 to 10 cars, other small laybys are used for informal parking.

Significance

The site lies within a special landscape area and is visually attractive. It is close to high urban populations and as a result receives a large number of visitors, being currently one of the Trusts most visited sites in Wales and within comparability of other UK woodland sites under the Trusts ownership. 4.5% of land use within Vale of Glamorgan is classified as Woodland, compared to 72% of permanent grassland and cereals that make up the Vale of Glamorgan, meaning that this site presents a significant 'woodland offer' for day visitors within a strong visitor market for the area. A local population (residents and tourists) is around 3,240,254. 1.5% of the population could equate to a visitor base of 80,000 people. The site provides over 6km of informal and formal recreation access provision including public and permissive footpaths and bridleways.

A visitor survey in 2018 found that the most important features of the site for visitors included site views and beauty (62%), tranquillity / peace and quiet (74%), biodiversity / wildlife / birdlife (52%), and convenience of getting to and from the site (47%). 21% valued the site's historical interest, however, at the time the historic interest was not widely interpreted or understood.

The landscape and in particular the site's ancient woods and trees are highly valued by local residents, as evidenced by a strong campaign against proposals to develop a flood storage area in Casehill in 2018-20.

Opportunities & Constraints

The site could be used in an educational role due to its proximity to high urban populations and historic interest. Some areas of bridleway can become heavily poached in winter and the meadows are particularly prone to intensive use which can lead to degradation of routes in wet weather.

Opportunities :
Large resident and tourist market (with villages nearby and Cardiff just 15 minutes away): potential, if desired, to attract more visitors to the wood.
To improve the visitor experience and interpretation so visitors are more aware of the work of the Woodland Trust and the site's special and sensitive features
Opportunities within the flatter, more accessible parts of the site, to create easy or disabled access routes suitable for a more diverse audience e.g. wheelchairs, buggies, and less mobile visitors.
Opportunities to engage better with existing visitors in order to recruit supporters from a target green audience to give money, time and voice to our cause? We can build upon the site's appeal for Dedications.
Potential to promote the Ancient Monument as visitor attraction.
The site would be suitable for educational visits due to its proximity to high urban populations and both natural and historic interest.
Open areas particularly in the Casehill meadows could be used for temporary parking and as an event and activities space.
Existing local network of volunteers and supporters can help to maintain the site, support with visitor management and incident response, and amplify communications locally.
Scope for partnership with local enterprises and business (e.g. horse-riding activities/ seasonal catering offer).

Main challenges for increasing footfall to the site are:
The management and conservation of the Scheduled Ancient Monument early medieval hill fort and a second earthwork feature, which also requires input from Cadw.
Lack of visitor infrastructure such as adequate parking, toilets, meeting points and shelters.
Accessibility around some areas; steep slope of undisturbed ancient woodland with little public access due to the terrain and much of the site becomes very muddy over winter.
The site and in particular the car park suffers from antisocial behaviour/ vandalism and damage which can be detrimental to the visitor experience and also impacts our ability to maintain open public access and quality, attractive infrastructure.
Signage and wayfinding is currently limited and this could deter first time visitors.
Competition from local tourist attractions.
Visitor infrastructure maintenance requirements for a relatively big estate.

Factors Causing Change

Wooden installations are subject to rot and infrastructure is also vandalised.

Cwm George and Casehill Woods are located within an urban fringe (Landscapes Working for the Vale, 1999) and has considerable pressures from development and population increases associated with developments within and around the settlements of Dinas Powys and nearby Cardiff and Barry. These pressures are noted further by how other sites of similar size and facility are attracting high visitor numbers annually. Cwm George receives an estimated 50k+ visits per annum with recorded figures in 2004 of 38k visits annually. This increase in visitor number influences and effects the visitor offer, through impacts associated with car park management and infrastructure to site appearance with footpath erosion and frequent wear and tear of site furniture.

Increasing footfall – demand for access to green space has increased following the Covid pandemic and within an increase in development and population in the nearby settlements of Dinas Powys, Barry and Cardiff in recent years. Increasing usage is putting higher wear on paths and site furniture and increasing costs for maintenance work such as litter removal. New visitors include individuals and families whose expectations of amenities and experience of the countryside may differ from that of the established regular visitor groups, who often tend to value a more 'natural' environment with relatively low-key infrastructure.

Cultural changes – new online media is radically changing how younger audiences in particular gather information and so the Trust's communication of its messages has to adapt to reach all visitor audiences.

The peri-urban nature of the site has always left it vulnerable to vandalism and anti-social behaviour, which includes the digging of unauthorised mountain bike trails, unregulated third party forest school and fire-setting activity, fly-tipping and joy riding. These activities may ebb and flow across the years and seasons.

An aging population – the demand for easy access trails is likely to increase with demographic shifts.

Increased dog ownership is also a factor driving demand, causing a rise in commercial dog walking, waste issues and associated complaints.

Long term Objective (50 years+)

To maintain the public car park and a network of paths, rides and bridleways so that people can continue to enjoy free access on foot throughout the wood in the future. Visitors of all abilities will be able to access the site and its features including site views, historical importance and bringing a sense of peace and tranquillity, free at the point of entry. The site will offer visitors the opportunity to experience ancient woodland and open wooded habitats and meadows without detriment to these important features.

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

Public footpaths, bridleways and other formal permissive paths will be kept clear of encroaching vegetation by cutting back at least once a year to provide users with free unobstructed access. Periodic coppicing will also be conducted on ride sides for the dual purpose of opening access and benefitting wildlife. Entrances, steps, bridges and other access furniture will be inspected periodically by the site manager and maintained in a safe and serviceable condition by carrying out repairs/replacements as required. Woodland Trust welcome signs will be erected and maintained at all formal entrances and visitor safety will be protected by carrying out periodic tree safety surveys along the wood's boundaries and along paths inside the woods. Anti-social damage and fly tipping will be repaired/ removed as soon as reasonably practicable whenever reported. By the end of the plan period, all entrances will meet WT Welcoming Site standards.

A volunteering offer will be developed on site to aid and assist with the sites maintenance and protection as well as providing a vehicle to communicate with site visitors and local people. The objective will be to develop a regular working group on site to undertake varying aspects of maintenance tasks and provide specialist support to aid conservation and restoration efforts within the sites key features (ancient woodland, new woodland and open ground habitats). The working group will also support efforts to reduce anti social behaviour and provide an on-site presence to deter unauthorised activities.

Programme of path improvements on the most popular and eroded routes to create an 'all-weather' network 'X' km long: this will reduce the footprint of trampling and improve the safety and accessibility of the core path network. Where possible this will aspire to meet access standards for less abled persons. All site barriers to visitors will be removed where they serve no safety purpose.

New way-marked trails will be created on site and updates on site interpretation and orientation will be undertaken.

At the end of the plan period, following investment in site infrastructure and events, survey of visitors and event attendees will show that a majority of visitors are more aware of the Trust and its aims and recognise why ancient trees and woods are important. Visitors from all groups feel safe and welcome to visit the woods.

All forest school and other third-party usage (including commercial dog walking) will be regulated by an appropriate licence agreement.

WORK PROGRAMME

Year	Type Of Work	Description	Due Date
2023	WC - Tree Planting / Seeding	Works associated with tree planting / tree seeding for woodland creation sites	November
2023	AW - Management Access Maintenance	Works associated with the maintenance of management access infrastructure and tracks Such as repairs to vehicle entrance points, maintaining vehicle bridges and repairing / reinstating surfaced management access routes.	December
2023	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	December
2024	LC - Routine Litter Picks	Planned/routine litter picks using contractors	February
2024	SL - Legal Obligation Work	Works that have to be undertaken by Woodland Trust as part of with legal agreements made with third parties such as erection of boundary fencing, surfacing of joint access tracks , maintenance of drainage ditches. Also works associated with safeguarding the Woodland Trust legal position – such as erection of boundary markers on open boundaries, removal of illegal third party structures/vehicles/ campsites	February
2023	WMI - General Site Restoration Work	Works associated with initial or restoration phases to conservation and physical features within the sites such as boundary ditches, fences and walls, hedges, infield and boundary trees	March
2024	LC - Routine Litter Picks	Planned/routine litter picks using contractors	March
2023	SL - Tree Safety Works - Zone A	Work associated with planned tree safety works alongside areas such as car parks, roadsides and boundaries	March
2024	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	April
2024	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	April

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2024	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	April
2024	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	May
2024	CS - Ecological Survey & Assessment	Use of external consultants to support the provision of ecological surveys, assessment and biodiversity / species monitoring	June
2024	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	July
2024	LC - Routine Litter Picks	Planned/routine litter picks using contractors	August
2024	AW - Visitor Access Infrastructure	Works associated with the construction of a new or extension to existing car parking facilities.	August
2024	LC - Routine Litter Picks	Planned/routine litter picks using contractors	September
2024	NWH - Maintenance Work	Works associated with the maintenance of non-woodland habitats – mechanical management, hay cutting, fence and wall maintenance etc	September
2024	AW - Management Access Maintenance	Works associated with the maintenance of management access infrastructure and tracks Such as repairs to vehicle entrance points, maintaining vehicle bridges and repairing / reinstating surfaced management access routes.	October
2024	PE - Volunteer on site activity	Support for activities at the site of visiting volunteer groups, such as corporate partners, local groups. Support could include tools, external trainers or materials for work parties	November
2024	CS - Visitor Survey & Assessment	Use of external consultants to support the provision of visitor surveys and public consultations	November
2025	LC - Routine Litter Picks	Planned/routine litter picks using contractors	February
2025	SL - Legal Obligation Work	Works that have to be undertaken by Woodland Trust as part of with legal agreements made with third parties such as erection of boundary	February

Year	Type Of Work	Description	Due Date
		fencing, surfacing of joint access tracks , maintenance of drainage ditches. Also works associated with safeguarding the Woodland Trust legal position – such as erection of boundary markers on open boundaries, removal of illegal third party structures/vehicles/ campsites	
2024	WMM - Secondary Silviculture	Works associated with silvicultural operations within secondary woods to meet our primary aims of conserving woodlands and encouraging public enjoyment– such as the removal of non-natives, thinning and promotion of native trees and shrubs, creating and managing view points and providing welcoming sites for visitors	February
2025	LC - Routine Litter Picks	Planned/routine litter picks using contractors	March
2025	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	April
2025	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	May
2025	AW - Visitor Access Infrastructure	Works associated with the construction of a new or extension to existing car parking facilities.	May
2025	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	July
2025	LC - Routine Litter Picks	Planned/routine litter picks using contractors	August
2025	LC - Routine Litter Picks	Planned/routine litter picks using contractors	September
2026	LC - Routine Litter Picks	Planned/routine litter picks using contractors	February
2025	WMI - PAWS Restoration	Works associated with the restoration phase of Planted Ancient Woodland Sites (PAWS) such as halo thinning around existing native trees, thinning and felling works, ride restoration, access improvements to aid restoration.	February

Year	Type Of Work	Description	Due Date
2026	SL - Legal Obligation Work	Works that have to be undertaken by Woodland Trust as part of with legal agreements made with third parties such as erection of boundary fencing, surfacing of joint access tracks , maintenance of drainage ditches. Also works associated with safeguarding the Woodland Trust legal position – such as erection of boundary markers on open boundaries, removal of illegal third party structures/vehicles/ campsites	February
2026	LC - Routine Litter Picks	Planned/routine litter picks using contractors	March
2026	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	April
2026	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	May
2026	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	July
2026	LC - Routine Litter Picks	Planned/routine litter picks using contractors	August
2026	LC - Routine Litter Picks	Planned/routine litter picks using contractors	September
2027	LC - Routine Litter Picks	Planned/routine litter picks using contractors	February
2027	SL - Legal Obligation Work	Works that have to be undertaken by Woodland Trust as part of with legal agreements made with third parties such as erection of boundary fencing, surfacing of joint access tracks , maintenance of drainage ditches. Also works associated with safeguarding the Woodland Trust legal position – such as erection of boundary markers on open boundaries, removal of illegal third party structures/vehicles/ campsites	February
2027	LC - Routine Litter Picks	Planned/routine litter picks using contractors	March

Year	Type Of Work	Description	Due Date
2027	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	April
2027	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	May
2027	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	July
2027	LC - Routine Litter Picks	Planned/routine litter picks using contractors	August
2027	LC - Routine Litter Picks	Planned/routine litter picks using contractors	September
2028	LC - Routine Litter Picks	Planned/routine litter picks using contractors	February
2028	SL - Legal Obligation Work	Works that have to be undertaken by Woodland Trust as part of with legal agreements made with third parties such as erection of boundary fencing, surfacing of joint access tracks , maintenance of drainage ditches. Also works associated with safeguarding the Woodland Trust legal position – such as erection of boundary markers on open boundaries, removal of illegal third party structures/vehicles/ campsites	February
2028	LC - Routine Litter Picks	Planned/routine litter picks using contractors	March
2028	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	April
2028	AW - Visitor Access Maintenance	Works associated with the maintenance of existing visitor access infrastructure and paths. Work could include items such as repairing pot-holes and path surfaces, mowing grass paths, path widening, maintaining footbridges and steps, cleaning signage etc,	May
2028	CS - Ecological Survey & Assessment	Use of external consultants to support the provision of ecological surveys, assessment and biodiversity / species monitoring	June

APPENDIX 1 : COMPARTMENT DESCRIPTIONS

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
1a	17	Beech	1960	PAWS restoration	Archaeological features, Diseases, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Ancient Woodland Site, Planted Ancient Woodland Site, Special Landscape Area
Area known locally as Park Wood (formally known by the Trust as Cwm George). A level area of mostly planted ancient woodland with the northern section being steep north facing running down to the Winstone brook. The compartment is bounded by the main access route running from the one o'clock gates to the east, Beauville Lane to the southwest, open farmland to the west and Wrinstone Brook to the north. Mature woodland with Beech, Oak and Ash and some remaining mixed conifers as well as pockets of planted Turkey Oak throughout. Ground flora varies between sparse, under the beech-dominated areas, to well developed where Ash dominates. Species include Dog's Mercury, Bluebell, Bramble, Enchanters nightshade, Wood Sorrell, Anemone and Wood Sedge. This area of the site is elevated between 100 and 115m asl on Carboniferous 'black rock' limestone with crags of exposed Calcarenite on steep north facing slopes above the Wrinstone brook and Cadoxton river. Well used public access to the compartment with numerous footpaths and a permissive bridleway. Pockets of regenerating western hemlock still pose a threat to ancient woodland features in some areas of the compartment and require intervention to move towards secure status. Access to the compartment is via the one o'clock gates off Beauville Lane.						
1b	3.3	Beech	1960	PAWS restoration	Archaeological features, Very steep slope/cliff/quarry/mine shafts/sink holes etc	Ancient Woodland Site, Planted Ancient Woodland Site, Special Landscape Area
An area known locally as Coed Clwyd-gwyn (known formally by the Woodland Trust as Cwm George). Gently sloping, west-facing area of planted and semi natural ancient woodland. This area of the site is elevated between 100 and 115m asl on Carboniferous 'black rock' limestone with crags of exposed Calcarenite on steep north facing slopes above the Wrinstone brook and Cadoxton river. Areas of exposed Carbiniferous limestone form the easterly edge of this compartment The compartment is bounded by the main access route running from the one o'clock gates to the west, compartment 4 to the north and the cliff that run down to the bottom of Cwm George to the east. Much of this zone includes a series of charcoal hearths, with evidence of these alongside the cliff edges and by mature coppice Oak specimens.						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
Mature woodland with planted beech, naturalised young and mature Sessile Oak, mature and juvenile Wych Elm, Cherry, Ash and occasional Horse Chestnut with an understory of Hazel and Hawthorn. Some remaining mixed conifers including Hemlock and Larch can be observed throughout. To the southern part of the compartment lies a stand or grove of native Small-Leaved Lime which boarders with the Golf Course, creating an unusual habitat profile. Ground flora varies between sparse under the beech-dominated areas to well developed where Ash dominates. Species include Dog's Mercury, Bluebell, Bramble, Enchanters nightshade and Wood Sedge. Although the conifer element is limited, some small pockets of regenerating western hemlock pose a threat to ancient woodland features. Vehicular access to the compartment is via the one o'clock gates off Beauville Lane and a bridleway runs North to south through the compartment with several footpaths emanating from it. Several other pedestrian access points can be found within the compartment leading from the 'Cwm' (Cpt 2a) to the north.						
2a	5.3	other willows	1995	Coppice	Gullies/Deep Valleys/Uneven/Rocky ground, Mostly wet ground/exposed site, Sensitive habitats/species on or adjacent to site	Ancient Woodland Site, Special Landscape Area
Area known as Cwm George. A dry limestone gorge, with a flat floor and substantial cliffs on the western side and the wooded hill fort to the east (Cpt 3), The valley floor is damp and supports dense regrowth of trees and shrubs and bramble, following clear felling by the previous owner circa 1995. Limestone has been quarried at the northern end to create 50m vertical high cliffs of Carboniferous Limestone leading down to a shallow to flat valley or gorge floor of limestone and mudstone bedrock features. The cliffs are less steep and lower at the southern end. Access to the compartment is along the valley floor, from the south past Tyn y Coed house and Public Footpath from the adjacent Golf Couse leading to the centre of Dinas Powys and via the vehicular management access and pedestrian access from the north via Michaelston le-pit. A public right of way (PROW) footpath transects the site from north to south. Main canopy species include Sessile Oak (Q. petraea), Wych Elm (Ulmus glabra), Ash (Frax. Excelsior) and Small-Leaved Lime (Tilia cordata), with large areas of lapsed coppice following the valley floor, including species such as Wild Cherry (Prunus Avium), Alder (Alnus Glutinosa) and Willow (Willow Spp.) A well developed ground flora of Dogs Mercury (Mercurialis perennis), Bluebell (Hyacinthoides non-scripta) and Wild Garlic (Allium ursinum) are present with evidence of previous soil disturbance evident by the presence of widespread ground Ivy. Rare and notable species within this compartment include Herb Paris (Paris quadrifolia), found within the floor of the 'Cwm' itself under mixed stands of lapsed coppice, a distinctive plant of ancient and damp woodlands and the Welsh Polypody (Polypodium cambricum), known to be the only location where the plant is found in the wild, first discovered in 1668, found on the cliff sides. Through the centre of the gorge is a seasonal stream following the route of the engineered track/path which is disconnected from the adjacent shallow flood plain on the western side of the						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
valley floor. This compartment is possibly the most ecologically important compartment on site given its mix of rare and diverse lower and ground flora plant life as a consequence of lying across two geological variations of Mudstone and Limestone, bordering the Scheduled Hillfort (Cpt 3a). This compartment is being to a similar canopy structure as Cpt 3a, and has comparable ground floral composition, but with the notable exception of Rare Lords and Ladies (Arum italicum subsp. neglectum), . This 'Cwm' was noted in the biological surveys carried out by Dr Mary E Gillham, a a dedicated naturalist and conservation pioneer.						
3a	9.1	Oak (sessile)	1940	High forest	Archaeological features, No/poor vehicular access within the site, Sensitive habitats/species on or adjacent to site, Site structure, location, natural features & vegetation	Planted Ancient Woodland Site
An area known locally as Newland Wood (Formally known by the Trust as Cwm George). NVC Type W8, Fraxinus excelsior-Acer campestre-Mercurialis perennis woodland. This is predominately Ash woodland with varying amounts of Field Maple, Pedunculate Oak, Wych Elm and often a selection of other canopy forming trees. This is one of the most common type of semi-natural woodlands in the lowlands of the British Isles. The ground flora component consists of Ramsons, Allium ursinum, often with Dogs Mercury, Yellow Archangel, Enchanters Nightshade, Wood Speedwell and Lesser Celandine. This can be described as the Allium ursinum sub-community, W8f. There are some areas where Ramsons are less dominant and Wood anemome, Lesser Celandine and Dogs Mercury are more prominent. These areas are close to W8b, Anemone nemorosa sub-community. The Canopy is formed mostly of Ash with varying amounts of Sycamore, Field Maple, Wych Elm and Alder. The Scrub layer is formed of Hazel, Hawthorn, young Wych Elm and Young Field maple. The woodland fringe along the Cadoxton River was quite diverse and had a similar ground flora component to that in Newland wood but had less of a tall canopy. Some of the taller trees making up a more open canopy were Ash, Alder, Pedunculate Oak and Field Maple. The shrub layer formed a prominent habitat including Hazel, Wych Elm and Field Maple and Spindle. There was a mix of species within the ground flora component similar to that found in Newland Wood but with some extra species including the rare Lords and Ladies Arum italicum subsp. neglectum . This woodland has been mapped as W8 b/f but could be assigned to W8b with further study. A wooded hill of part ancient woodland and part planted ancient woodland, now secure and possessing some typical ancient woodland flora such as blue bells and wood anemone. All of the ancient woodland indicators (and many of the other species recorded) are typical of this woodland type found in Lowland Britain on clay and limestone substrates. The Goldilocks Buttercup, Ranunculus auricomus and Thin-spiked Sedge, Carex strigosa are two more uncommon species in Wales although the Carex strigosa is quite common in other parts of the woodland in the vicinity on low lying wetter ground. Ramsons, Allium ursinum, is also a species that can be found in damper and						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
slightly more base-rich areas of this type of woodland and at this site. The ancient woodland indicators for this area are taken from the document "GUIDELINES FOR THE SELECTION OF WILDLIFE SITES IN SOUTH WALES" Prepared by Gwent Wildlife Trust on behalf of The South Wales Wildlife Sites Partnership, 2004. Bounded by the floor of Cwm George to the west (Cmpt.4) to the south privately owned woodland of Tyn y Coed and areas of new planting to the north and east. The hill is the site of an early medieval hill fort known as Dinas Powys hillfort, and is the richest, best preserved and most fully excavated early medieval secular settlement in Wales. The hillfort was extensively excavated by Leslie Alcock in the late 1950s. The subsequent publication became a seminal work of early medieval archaeology (Alcock 1963) and Dinas Powys is often quoted as the classic type site of the early medieval west. (A.Seaman STUDIA CELTICA, XLVII (2013), 1–23). The hillfort itself comprises of two earthwork features known as Tyn y Coed and the Southern Banks. Both of these are scheduled ancient monuments. A footpath runs north to south, through the gorge and connects the site entrance at Tyn yr Coed with compartments 1a and b (formally Park Wood) as well as leading to Casehill Meadows and out of the site via the public footpath network to Ely and Caerau hill fort to the north. A second path, emanating from the southern entrance to the gorge follows some steep steps, through the Tyn yr Coed Earthworks and up to the hill fort.						
4a	20.95	Open ground	2001	Non-wood habitat	Landscape factors, Sensitive habitats/species on or adjacent to site	Special Landscape Area
An area known as Casehill Meadows. Area of newly predominantly newly created woodland running along the northern edge of the site, bounding both sides of the Cadoxton River and links Cpt 3 and 5, Cwm George and Casehill Woods. This compartment is a mosaic of NVC habitats including W8, Fraxinus excelsior-Acer campestre-Mercurialis perennis woodland and plant communities close to plant communities Allium ursinum sub-community, W8af and W8b, Anemone nemorosa sub-community. The Canopy is formed mostly of Ash with varying amounts of Sycamore, Field Maple, Wych Elm and Alder. The scrub layer is formed of Hazel, Hawthorn, young Wych Elm and Young Field maple. The majority of the compartment is open ground habitat, bordering areas of ancient woodland, with some being re-planted in 2004, now including Wild Cherry. Part of the site was planted by the public and several Welsh Assembly members in December 2001 and known as Casehill Meadows. Oak, ash and alder were the most commonly planted species, along with a range of shrub species. The majority of the compartment has been left un-planted following public consultation, which highlighted the proximity to the parkland of Cwrt yr Ala House. The site is mainly flat, but with gentle to steep slopes throughout the site of mainly a northerly aspect. The river corridor (Cadoxton) is narrow and incised in nature, disconnected from the surrounding flood plain and meadows, likely as a result of historic canalisation to extract and divert water along the western edge of Newland wood, taking water to a local historic mill (now demolished) with remnants visible by way of retained walling at the river crossing for the permissive bridleway and stone bridge adjacent to the public footpath. The grassland areas are the result of agricultural improvement and are at present species poor generally, although						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
some of the steeper slopes retain species rich grassland similar to a NVC type MG5 Centaureo-Cynosuretum grassland. A number of veteran trees are found within the grassland. A network of heavily used footpaths (permissive and PROW), often wet in winter, connect the two areas formally known as Park wood and Casehill Wood as well as linking into the surrounding public footpath network.						
5a	10.59	Beech	1960	Min-intervention	Mostly wet ground/exposed site	Ancient Woodland Site, Special Landscape Area
Area known as Casehill Wood. Casehill Wood is a prominent feature in the landscape around Michaelston le Pit. It is a restored ancient woodland site, mostly on a northerly aspect with formally planted with Japanese larch which, with the exception of a few individuals, has now been removed. The wood has retained much of its ancient woodland characteristics, with a diverse structure and composition of mixed broadleaves, including oak, ash sycamore, alder and wych elm, along with some planted larch and beech to the eastern and northern end of the compartment. An abundant ground flora also exists, typical of a W8, Fraxinus excelsior-Acer campestre-Mercurialis perennis woodland for the most part, including a good population of early purple orchids, bluebell, wood sorrel, pendula sedge and anemone. Much of the woodland floor is Ivy covered, suggesting disturbance, possibly related to former forestry operations such as clear-fell and re-stock in the 1950's. The site slopes in places steeply to the northwest, and is bounded to the north west by an area of new planting (Cpt. 4). To the south east another area of new planting is found (cpt. 6). To the north the site is bounded by the council road running to Michaelston le Pit where a permissive site car park is located. Access is well provisioned with a bridleway running through the compartment to the meadows and connecting to compartments 1a and b, several footpaths run through the compartment and connect to the meadows and the new planting in compartment 6a.						
6a	9.17	Birch (downy/silver)	1999	Wood establishment	Landscape factors, Services & wayleaves	Special Landscape Area
Area known as Pen y Turnpike. It is a level area at the top of a wooded NW facing slope (Cpt 5). New planting as part of the WOYD initiative was carried out in 1999, with a range of native species and a Millennium feature of Scots Pine, open areas were also retained within the woodland planting. The compartment is bounded to the southeast by Pen y Turnpike Road and to the northeast by compartment 5. To the east is the council maintained road to Michaelston le Pit. To the west is privately owned land. Canopy composition is dominated by areas of Downy Birch, Ash, Sessile Oak, Alder and Aspen species with planted areas of Hazel, Field Maple and Dogwood spp.						

Cpt No.	Area (ha)	Main Species	Year	Management Regime	Major Management Constraints	Designations
Some areas of the planting are suffering substantially from squirrel damage, with most species targeted, although this is not currently threatening the overall establishment of the woodland. The grassland glades and rides are dominated by tall vigorous grasses that suppress other species, typically false oat grass, Yorkshire fog Holcus lanatus, rye grass (possibly Italian rye grass) and stands of creeping thistle Cirsium arvense. A range of common plants associated with disturbed grassland communities are also common including plants typically associated with abandoned ground and grassland such as cocksfoot, timothy, creeping buttercup, common hogweed, broad-leaved dock and common nettle The habitat value of the compartment is enhanced significantly by the presence of two naturally occurring ponds, towards the south-west of the site. A circular path provides access around the area of new planting.						

GLOSSARY

Ancient Woodland
Ancient woods are defined as those where there has been continuous woodland cover since at least 1600 AD. In Scotland ancient woods are defined strictly as sites shown as semi-natural woodland on the 'Roy' maps (a military survey carried out in 1750 AD, which is the best source of historical map evidence) and as woodland all subsequent maps. However, they have been combined with long-established woods of semi-natural origin (originating from between 1750 and 1860) into a single category of Ancient Semi-Natural Woodland to take account of uncertainties in their identification. Ancient woods include Ancient Semi-Natural Woodland and plantations on Ancient Woodland Sites (see below). May support many species that are only found in ancient woodland.

Ancient Semi - Natural Woodland
Stands in ancient woods defined as those consisting predominantly of native trees and shrubs that have not obviously been planted, which have arisen from natural regeneration or coppice regrowth.

Ancient Woodland Site
Stands in ancient woods that have been converted to plantations, of coniferous, broadleaved or mixed species, usually for timber production, including plantations of native species planted so closely together that any semi-natural elements of the understorey have been suppressed.

Beating Up
Replacing any newly planted trees that have died in the first few years after planting.

Broadleaf
A tree having broad leaves (such as oak) rather than needles found on conifers (such as Scots pine).

Canopy
The uppermost layer of vegetation in a woodland, or the upper foliage and branches of an individual tree.

Clearfell
Felling of all trees within a defined area.

Compartment
Permanent management division of a woodland, usually defined on site by permanent features such as roads. See Sub-compartments.

Conifer
A tree having needles, rather than broadleaves, and typically bearing cones.

Continuous Cover forestry
A term used for managing woods to ensure that there are groups or individual trees of different ages scattered over the whole wood and that some mature tree cover is always maintained. Management is by repeated thinning and no large areas are ever completely felled all at once.

Coppice
Trees which are cut back to ground levels at regular intervals (3-25 years).

Exotic (non-native) Species
Species originating from other countries (or other parts of the UK) that have been introduced by humans, deliberately or accidentally.

Field Layer
Layer of small, non-woody herbaceous plants such as bluebells.

Group Fell
The felling of a small group of trees, often to promote natural regeneration or allow planting.

Long Term Retention
Discrete groups of trees (or in some cases single trees) that are retained significantly past their economic felling age. Operations may still be carried out within them and thinning is often necessary to maintain stability.

Minimum Intervention
Areas where no operations (such as thinning) will take place other than to protect public safety or possibly to control invasive exotic species.

Mixed Woodland
Woodland made up of broadleaved and coniferous trees.

National vegetation classification (NVC)
A classification scheme that allows an area of vegetation to be assigned to the standardised type that best matches the combination of plant species that it contains. All woodlands in the UK can be described as being one of 18 main woodland types (W1 - W18), which principally reflect soil and climatic conditions. For example, Upland Oakwoods are type W11, and normally occur on well drained infertile soils in the cooler and wetter north and west of Britain. Each main type can be subdivided into numerous subtypes. Most real woods contain more than one type or sub-type and inevitably some woods are intermediate in character and can't be properly described by any sub type.

Native Species
Species that arrived in Britain without human assistance.

Natural Regeneration
Naturally grown trees from seeds falling from mature trees. Also regeneration from coppicing and suckering.

Origin & Provenance
The provenance of a tree or seed is the place where seed was collected to grow the tree or plant. The origin is the geographical location within the natural range of a species from where seeds/tree originally derives. Thus an acorn collected from a Turkey oak in Edinburgh would have an Edinburgh provenance and a southern European origin.

Re-Stocking
Re-planting an area of woodland, after it has been felled.

Shrub Layer
Formed by woody plants 1-10m tall.

Silviculture

The growing and care of trees in woodlands.

Stand
Trees of one type or species, grouped together within a woodland.

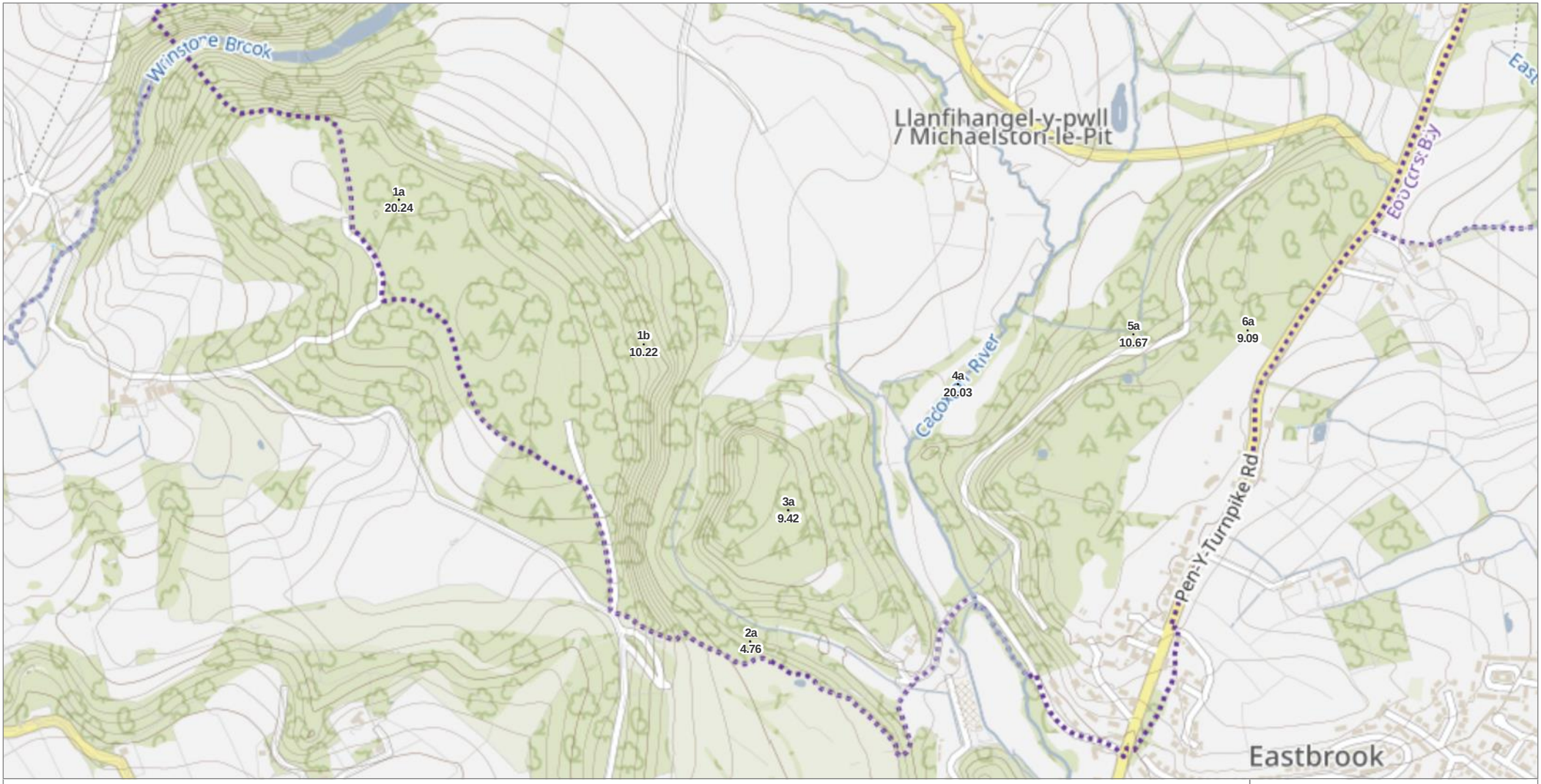
Sub-Compartment
Temporary management division of a compartment, which may change between management plan periods.

Thinning
The felling of a proportion of individual trees within a given area. The remaining trees grow to fill in the space created.

Tubex or Grow or Tuley Tubes
Tubes placed over newly planted trees or natural regeneration that promote growth and provide protection from animals such as rabbits and deer.

Weeding
The control of vegetation immediately around newly planted trees or natural regeneration to promote tree growth until they become established.

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



- Estate SubCompLabels
- Estate SubComp hectares - Labels
- Estate SubCompartments

Cwm George - Compartments Map

0 0.15 0.3 km

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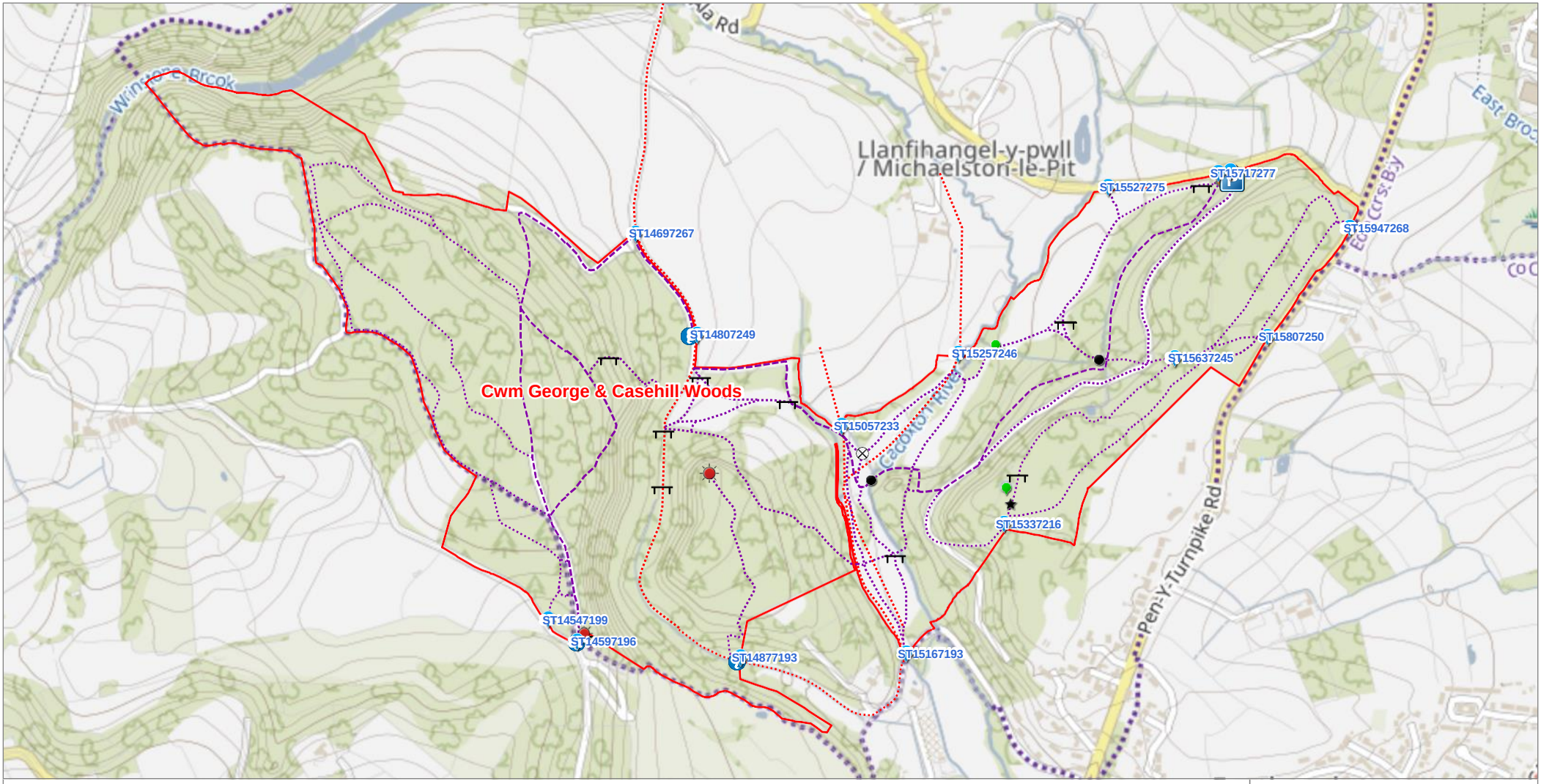
Dyddiad/Date: 11 January 2024

Awdur/Author: Woodland Trust

COED CADW WOODLAND TRUST



Estate Access Points

Access points

Estate CarParks

Estate Other Features

Seat

Culvert

Bridge

Steps

Information board

Other feature

Viewpoint

Waymarker sign

Feature tree

Millennium feature

Estate Path Network

Legal-Footpath

Permissive-Footpath

Permissive-Bridleway

EstateManagementUnitsPolygonsGB

Visitor Access Map

0 0.15 0.3 km

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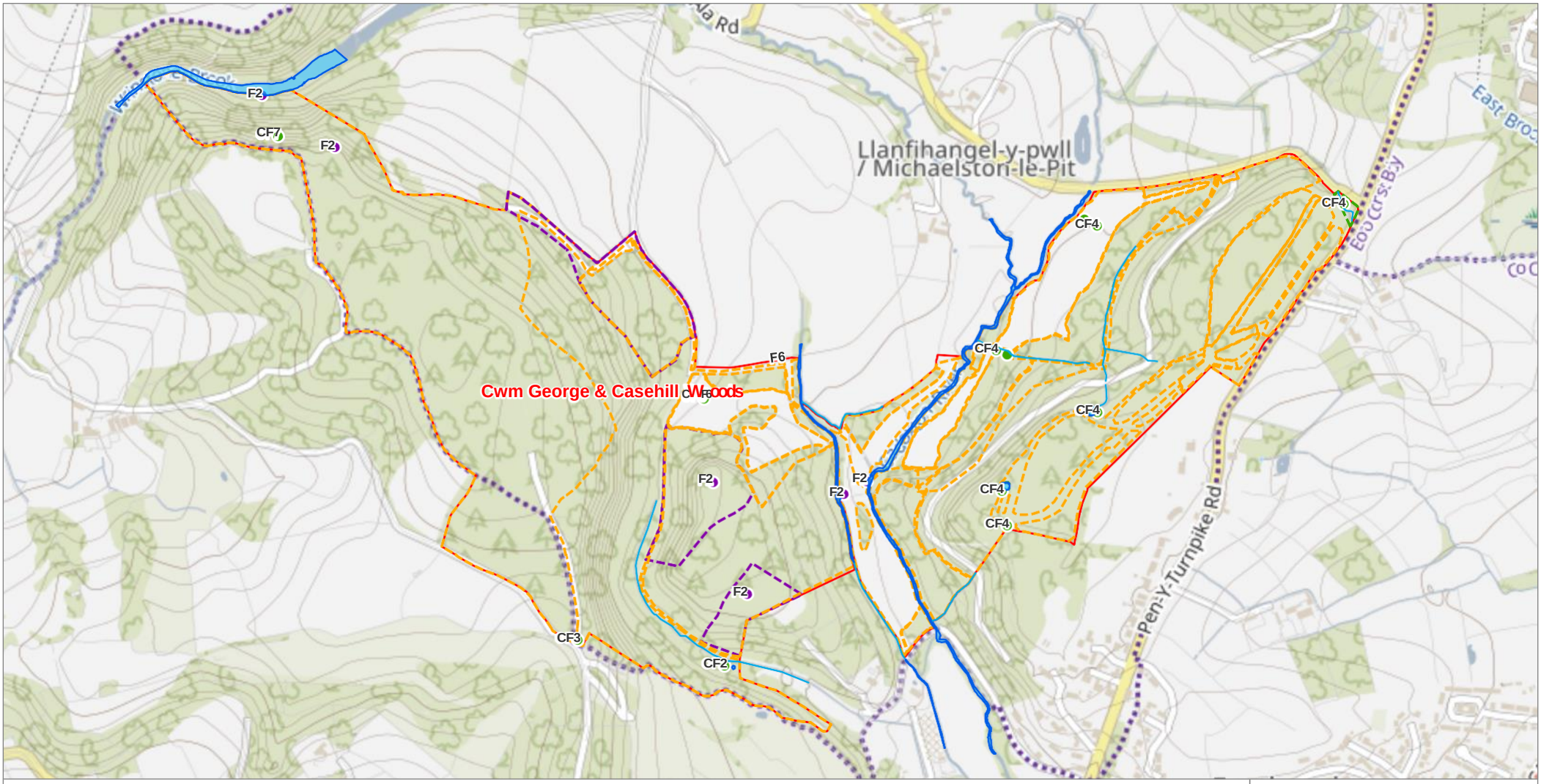
Graddfa/Scale:1:9,680 @A4

Dyddiad/Date: 10 January 2024

Awdur/Author: Woodland Trust

COED CADW WOODLAND TRUST



WatercoursesGB
WaterBodiesGB

Features Point
Conservation
Historic

Features Lines
Key

Feature Polygon
Conservation
Historic

Key
EstateManagementUnitsPolygonsGB

Cwm George - Key Features Map 2023 to 2028

0 0.15 0.3 km

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Graddfa/Scale:1:9,680 @A4

Dyddiad/Date: 10 January 2024

Awdur/Author: Woodland Trust

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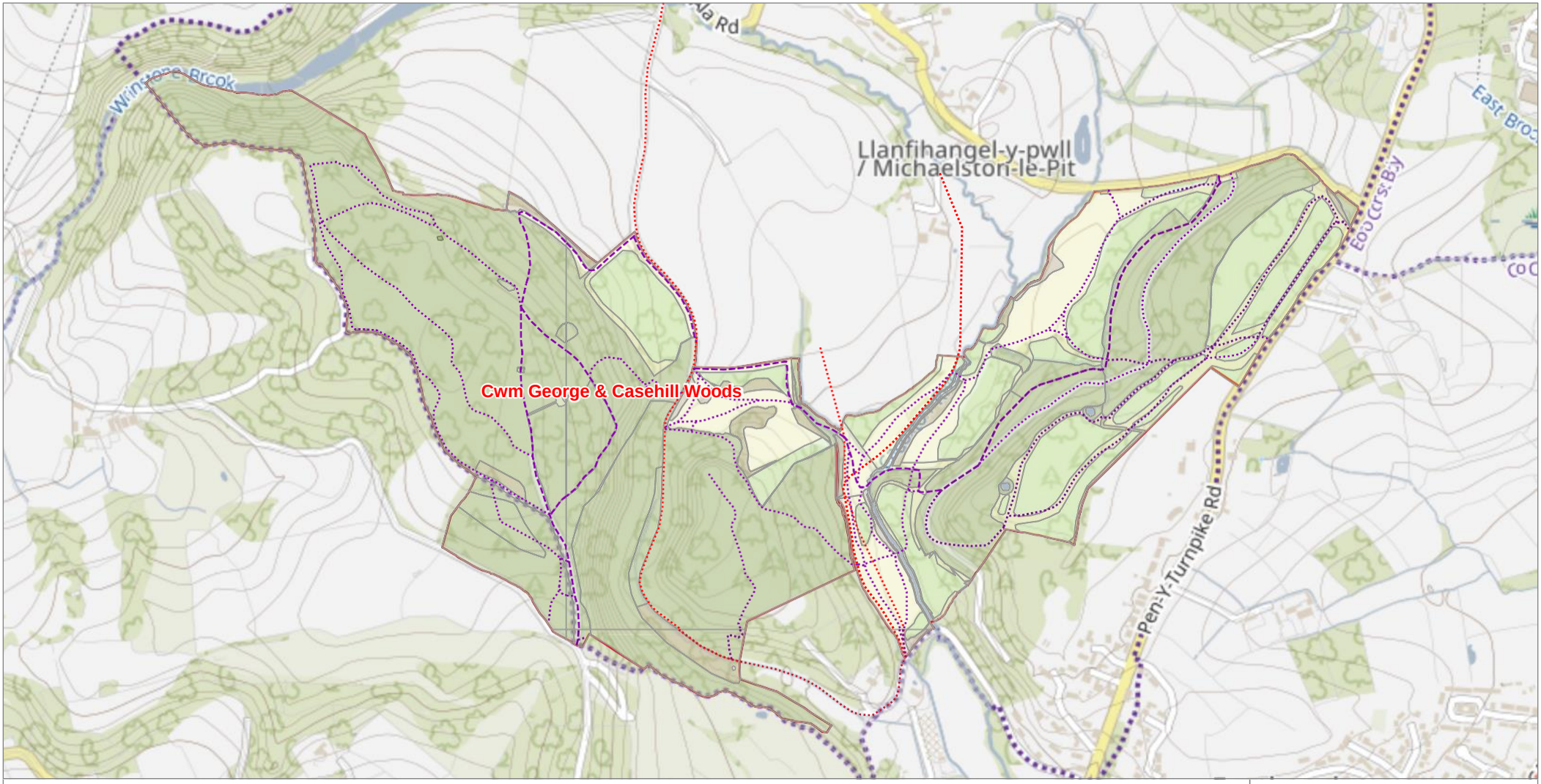

Estate Path Network

- Legal-Footpath
- Permissive-Footpath
- Permissive-Bridleway

Estate Habitat

- Existing Woodland
- Open Space
- New Planting
- Shrub Planting
- Natural Regeneration
- EstateManagementUnitsPolygonsGB

Cwm George - Habitat Map
2023 to 2028

0 0.15 0.3 km

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Graddfa/Scale:1:9,680 @A4

Dyddiad/Date: 10 January 2024

Awdur/Author: Woodland Trust

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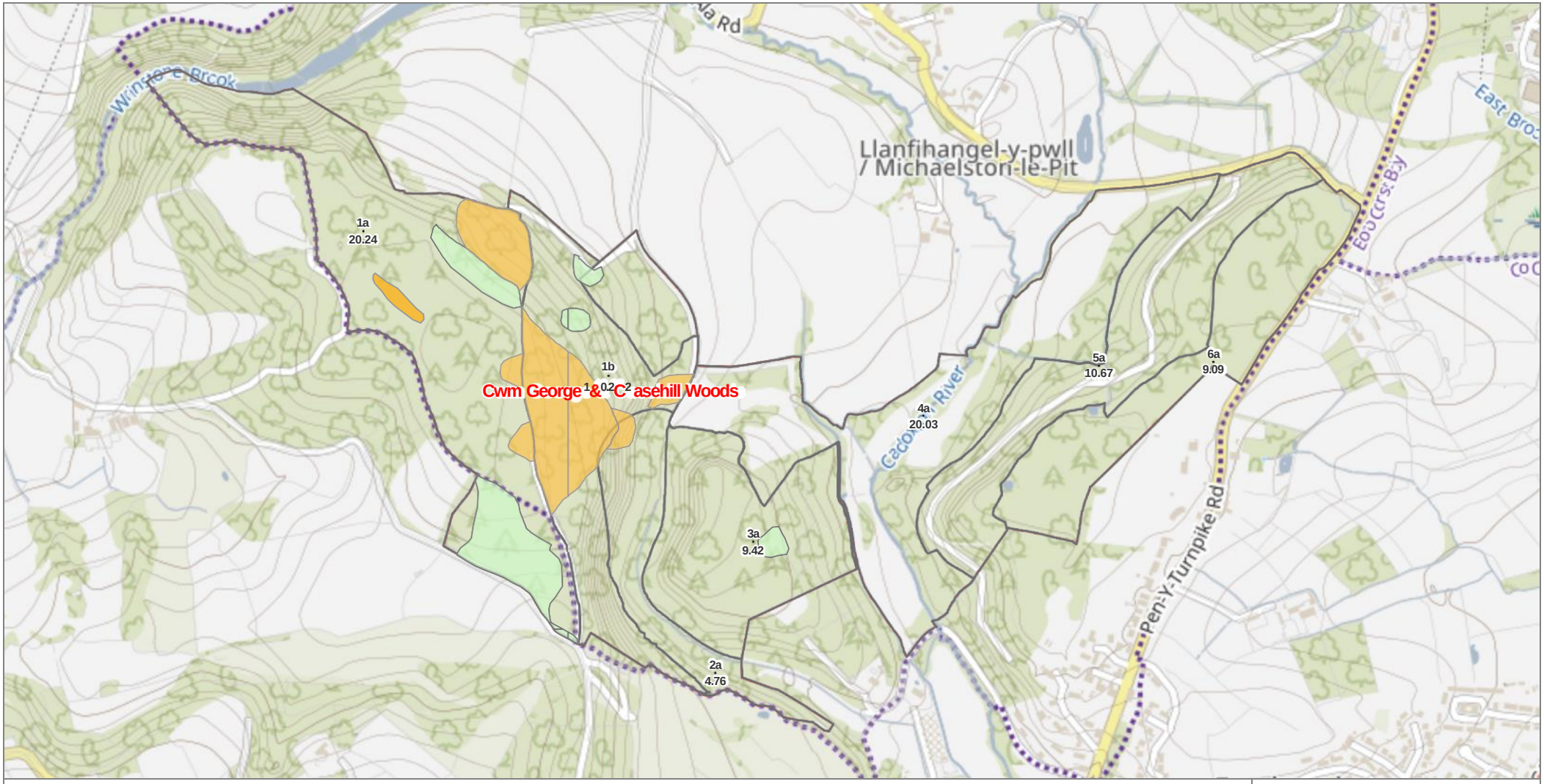

Estate AWR Survey GB VIEW All

Secure

Threatened

Estate SubCompLabels

Estate SubComp hectares - Labels

Estate SubCompartments

EstateManagementUnitsPolygonsGB

Cwm George - Planted Ancient Woodland Restoration Zones 2023 to 2028

0 0.15 0.3 km

F

Graddfa/Scale:1:9,680 @A4

Dyddiad/Date: 10 January 2024

Awdur/Author: Woodland Trust

COED CADW WOODLAND TRUST