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LIFE17NAT/UK/000020 – Celtic Rainforests LIFE

TENDER: Woodland Management works at Coed Llwybr Caerynwch, Brithdir SH754185

Snowdonia National Park Authority (SNPA) wish to commission woodland management works at Coed Llwybr Caerynwch with the aim of improving the ecological condition of an ancient woodland site assigned Plantation on Ancient Woodland Site status (PAWS). You are invited to submit a quote for the work as detailed in this tender document.

Context:

Coed Llwybr Caerynwch is a planted ancient woodland site of 8.82 hectares near Dolgellau, Gwynedd. Snowdonia National Park Authority (SNPA) has funding via the LIFE Celtic Rainforest Wales Project to support much needed thinning work throughout 3 compartments. The woodland is part of the Coedydd Dyffryn Wnion Site of Special Scientific Interest (SSSI) and the presence of the conifer plantation is threatening the semi-natural habitat on site, as well as the adjacent riparian woodland of the Afon Wnion gorge which is in separate ownership. Working with Coed Cadw, SSSI consent has been secured from Natural Resources Wales (NRW) to carry out sensitive thinning operations designed to reduce the impact of the conifers on pre-plantation mature broadleaves and other semi-natural habitat features. Very little management work has taken place since plantation establishment in the mid-20th century. Dense stands of Western hemlock and Western red cedar are shading out mature broadleaves, particularly sessile oak and small-leaved lime. Stream issues drop down through the site to the Wnion, these riparian edges support remnant ancient woodland plant assemblages but are also suffering from over-shading from plantation conifers.

Management objectives:

The aim of this contract is to bring the woodland back into positive management, restore fragmented ancient woodland features and increase the site's resilience. Thinning work will reduce the threat from non-native conifers, bringing light to the shaded crowns of mature broadleaves and increased light to the woodland floor.

We have a felling licence to remove 520m³ of conifer timber across compartments 2, 4 & 5, an area of 3.96 hectares with extraction of 40% Western red Cedar and 60% Western hemlock.

Felling Site/ Cpt	Type of operation	Actual Species (name of species to be in full)	Marking of trees	Area (ha)	Approx. age of trees	Total number of trees	Estimate of Volume (m3)
2	T Thinning	Western red cedar 100%	Paint mark	0.39	70	32	40
4	T Thinning	Western hemlock 100%	Paint mark	2.11	70	210	284
5	T Thinning	Western red cedar 100%	Paint mark	1.46	70	230	196
				Totals	3.96	472	520

Access and extraction:

There is a field within the ownership boundary that can be used to stack and load timber. The field is currently grazed by a tenant but permission to use the field can be organised. There are several old tracks and access routes that could be used for extraction but will need reinstatement depending on operational plans. See map below. The contract would suit a skyline or cable crane set-up but other low-impact forestry machinery could also work.

Any negotiation with third parties will be facilitated by Celtic Rainforest Wales project staff.



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Submitting a tender:

Tenders are invited for carrying out careful directional felling within plantation stands, halo thinning operations and timber extraction which is planned and executed with due care to forest soils and ancient woodland features. This is a complex and sensitive forestry operation that would suit contractors with experience of, or willingness to develop skills in, thinning operations, conservation forestry, ancient woodland restoration, low-impact extraction methods and forest operations to transform even-aged plantations to irregular structures. Support from SNPA and Coed Cadw staff will be provided throughout the contract.

Within the tender document, we expect to see provision for European Protected Species (Bats, Otters and Dormouse) and sensitive woodland habitats as well as demonstration of how operations will be carried out within Forest Industry Safety Accord (FISA) guidelines and to UK Forestry Standard (UKFS) best practice. Please see accompanying SSSI consent conditions document for more detail on site sensitivities. Please also see maps below for compartment level details and possible extraction routes and stacking/loading areas. LIFE project funds are available to pay for the entire contract so standing sale will not be necessary.

The site owner has granted permission to visit the site and trees for felling and extraction have been marked with pink marker paint. We highly recommend that all prospective contractors arrange a site meeting beforehand to discuss the works. If you would like to organise a site visit prior to submitting a tender, please contact Adam Thorogood (Woodland Outreach Advisor - Coed Cadw) on 07733012452 or via e-mail at adamthorogood@woodlandtrust.org.uk.

Please use the table provided in Annex I when submitting quotes. Quotes should be returned to the address below before 12:00 (noon), on Wednesday, 5th October 2022. Can you note in the table if the quote includes VAT.

Applications will be scored independently by three persons involved with the Celtic Rainforests Wales project using the below scoring matrix:

Criteria	Weighting (%)
Proposed fee	55
Ability to demonstrate previous experience of PAWS work	35
Written reference(s) - minimum of one expected*	10

* please note references should not be from staff working directly on the Celtic Rainforest Wales project.

All tenders should be sent in an envelope labelled 'Confidential' and addressed as follows:

Tender – Coed Llwybr Caerynwch
Director of Corporate Services
Snowdonia National Park Authority
National Park Offices
Penrhyndeudraeth
Gwynedd
LL48 6LF



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Please note that should any tenders be received which do not follow the above instruction, they will not be considered.

Timetable:

Once appointed, the work should be completed by 31st March 2023 . However, we are open to a phased operation taking place across two winter management seasons (i.e. to 31st March 2024).

Payment:

Payments will be made on submission of an invoice after the completion of each element of work to a satisfactory standard.

Successful awardees will need to provide documentation on the following if applicable:

- Risk assessment, including bio-security measures.
- * Proof of all relevant qualifications required to complete the work such as NPTC chainsaw certificate, chemical spraying certificates, and if applicable, relevant certificates in the use of ropes.
- * Proof of one or more people working at the site as being trained in First Aid.
- * Public liability Insurance.
- * Employers liability Insurance.

*Should SNPA not already have these on file.

With regards

A handwritten signature in blue ink that reads "Gethin Davies".

Senior Project Manager
Awdurdod Parc Cenedlaethol Eryri
gethin.davies@eryr.llyw.cymru
07887 452 469



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Annex I

Coed Llwybr Caerynwch Quote Sheet

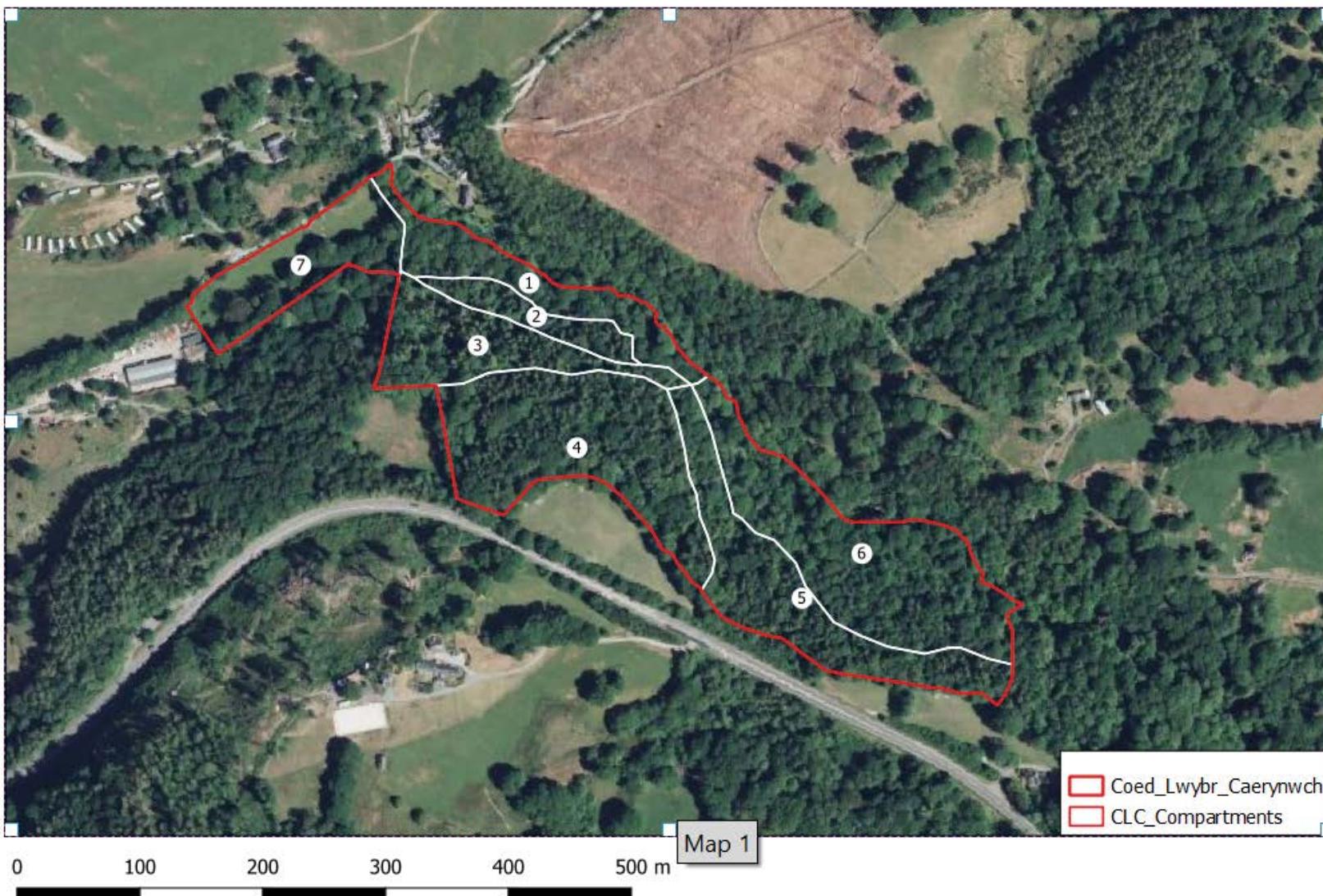
Compartment	Total (please note if price includes VAT)
2	
4	
5	

Name:

Signed:

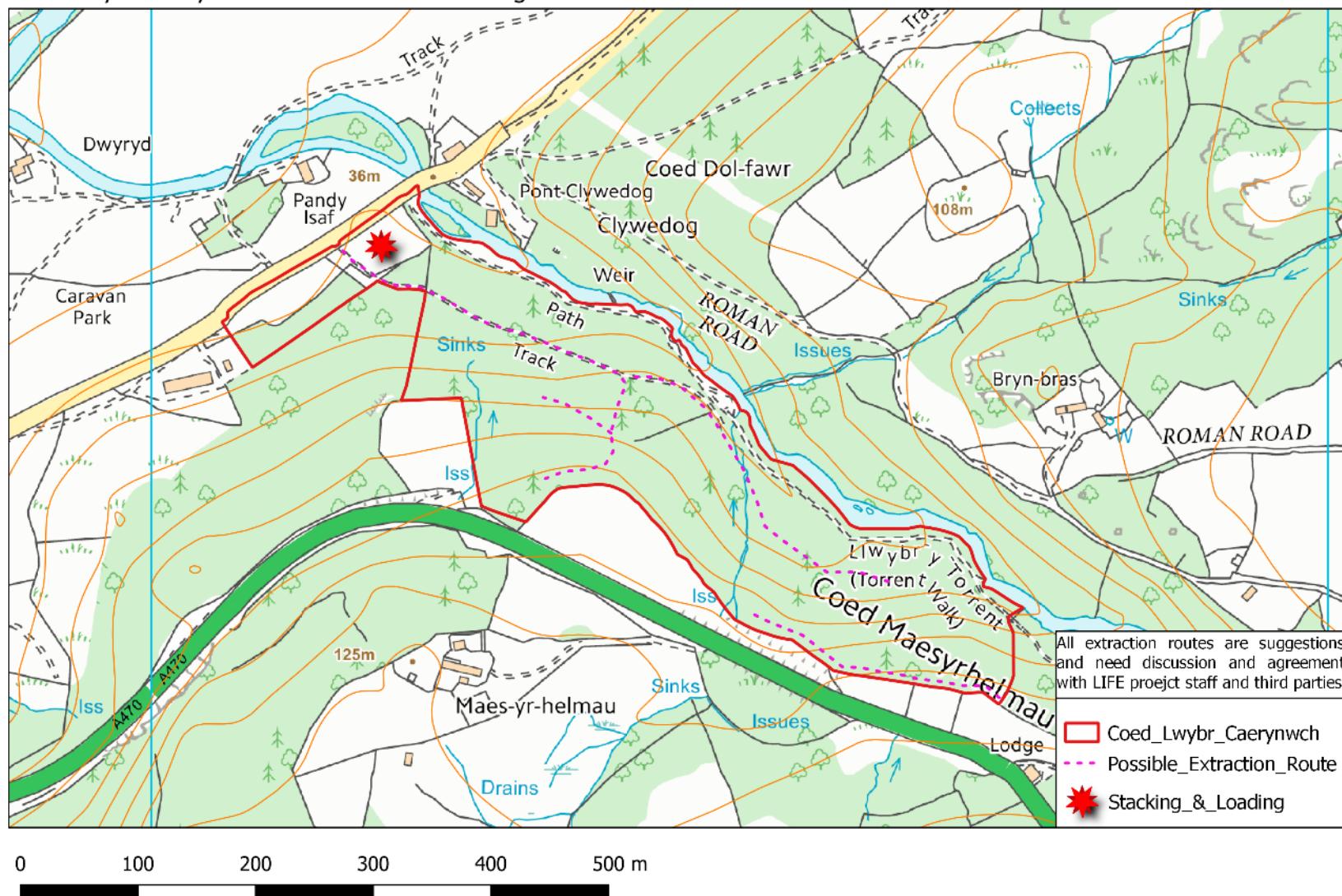
Coed Lwybr Caerynwch Compartments - felling licence is for cmpts 2,4 & 5

QGIS



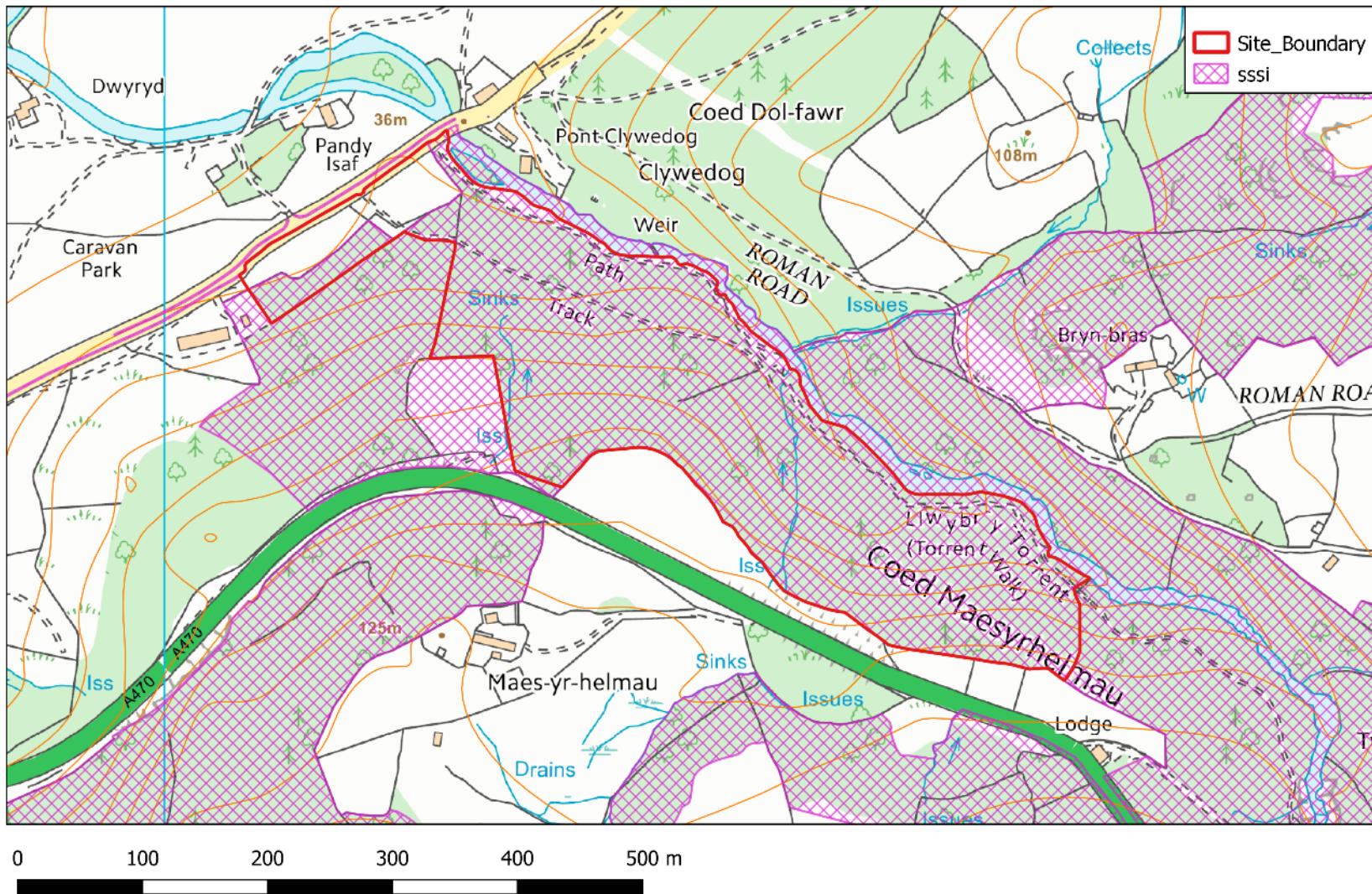
Coed Lwybr Caerynwch Extraction and Loading

QGIS



Coed Lwybr Caernwch - Coedydd Dyffryn Wnion SSSI

QGIS





Mr John Needle
Flumina House
Foundry Lane
Milford
Derbyshire
DE56 0RN
Cc: Adam Thorogood, Woodland Trust

Our ref: SH71.3
Consent Ref No: C001694/1
16/11/2021

Dear Sir

CONSENT UNDER SECTION 28E OF THE WILDLIFE AND COUNTRYSIDE ACT 1981

Site(s) of Special Scientific Interest:
Coedydd Dyffryn Wnion

Please see attached a consent to carry out notifiable operations on the above site(s) for which you submitted a notice to us dated 22/07/2021.

This consent allows you to carry out the work(s), or cause or permit them to be carried out, in the way described overleaf.

You must give written notice if you intend to carry out any work differently to the way described overleaf or if you wish to carry out any other work. We recommend discussing this with the relevant Conservation Officer first.

If you disagree with any of the conditions or the time limit you may appeal. Details of how to appeal are shown at the end of the attached consent.

This consent only relates to the above legislation; other authorisations may be required.

Yours faithfully

A handwritten signature in black ink.

Mr Arfon Hughes
Environment Team Leader – Dwyfor and Meirionnydd
Contact Officer Details:
Ffôn /Tel: 03000 654147
Ebost/Email Ifan.E.Jones@cyfoethnaturiolcymru.gov.uk
www.cyfoethnaturiolcymru.gov.uk www.naturalresourceswales.gov.uk

Government Buildings,

Arran Road
Dolgellau, Gwynedd LL40 1LW

Croesewir gohebiaeth yn y Gymraeg a'r Saesneg
Correspondence welcomed in Welsh and English

**CYFOETH NATURIOL CYMRU
NATURAL RESOURCES WALES**

Consent ref no: C001694/1

CONSENT UNDER SECTION 28E OF THE WILDLIFE AND COUNTRYSIDE ACT 1981

Site(s) of Special Scientific Interest:
Coedydd Dyffryn Wnion

Natural Resources Wales hereby gives consent that:

John Needle
Flumina House
Foundry Lane
Milford
Derbyshire
DE56 0RN

As an owner/occupier of land within the above site(s), may carry out, cause or permit to be carried out the operation(s) specified below in the manner prescribed.

The plan is to carry out light thinning work in plantation conifers in compartments 2,4 and 5. Compartments 2 and 5 are Western red cedar, compartment 2 is Western hemlock. The thinning operations will halo thin around pre-plantation native broadleaves, mainly sessile oak and small-leaved lime, as well as remove a small amount of volume from the plantation. The work is intended to be light and sensitive to the SSSI habitat and to reduce the impact of conifer shading and seeding on the designated habitat. Ideally we'll be working with a contractor who can set up a high-lead or skyline system in order to extract timber down to the field at the bottom which is within the same ownership.

Condition	Condition Reason
Prior to undertaking any works ensure the work area is inspected by a competent ecologist for lichen and bryophyte; signs of whorl snails, dormice, otters, bats and Killarney fern. Follow advice given to avoid any adverse impact and disturbance and before work starts send a copy of the Inspection report to NRW.	To protect the features of the site and comply with European Protected Species legislation. To determine bryophyte and lichen distribution and to ensure felling does not adversely affect lichens and bryophytes which may be affected by reduction in humidity levels caused by canopy cover reduction. And to assist in future assessments.
Minimum 80% canopy cover to be retained to maintain high humidity levels.	80% canopy cover is the minimum to maintain essential high humidity levels for the features of the site and to comply with European Protected Species legislation. Tree cover and shade play a crucial role along with river flows in maintaining the

	humid, relatively drought- and frost-free conditions they require.
Ensure that all non target trees and Ivy remain in place. For example, if Ivy connects the wall to the target tree the tree shall be cut in a manner that preserves the ivy on the wall.	Mountain whorl snail favours stone walls with ivy and small trees providing dense vegetation. The removal of small Ash trees could directly or indirectly disturb this niche favoured by the snails, through tree removal or incidental damage.
Only extract timber if the following criteria are met. A minimum of 30m³ per hectare of dead wood to remain on site, which consists of a mixture of fallen trees (minimum 1 per hectare), broken branches, dead branches on live trees, and standing dead trees (minimum 1 per hectare)	The removal of potential deadwood into the ecosystem that support Slime moulds, Bryophytes, Lichens and Invertebrates could affect the woodland features integrity.
Ensure that the light thinning work in plantation conifers does not leave the woodland in compartments 1, 3 and 6 completely open to the south-west winds.	To minimise exposure (and potentially windthrow) along the river corridor.
Minimise risk of damage to ground layer species and root plates.	To protect the features of the site and comply with European Protected Species legislation.
Work to be conducted during daylight hours.	To protect the bat features of the site and comply with European Protected Species legislation.
No fuel to be stored on SSSI or SAC. Refuelling off site only.	To protect the features of the site and comply with European Protected Species legislation.
All machinery and equipment to be cleaned before entering site.	To prevent spread or introduction of invasive non-native species.

This consent is valid until: 01/10/2026

To time limit the consent and allow opportunity to review.

This consent only relates to the above legislation. It does not release you from any obligations to obtain approval under other legislation or the General Law. If the proposed works involve development, you may also require planning permission from the Local Planning Authority. Some proposals may require the landowner's permission or other authorisations.

Date: 16/11/2021

Signed: Arfon Hughes

SSSI Consents: Your right of appeal

If we have not consented to the proposed operations you have notified us of, or you disagree with any imposed conditions or time limits, you have the right to appeal. If we do not make a decision whether or not to give consent within 4 months you may appeal as if we had refused consent.

You also have a right of appeal if we withdraw or modify a consent we have previously issued to you.

If you are unclear as to why we have made our decision you should ask us for clarification before deciding whether to lodge an appeal.

Submitting an appeal

Forms and further guidance are available on the Welsh Government website <http://gov.wales/topics/environmentcountryside/consmanagement/rights-of-way-and-wider-access/countryside-area/sites-of-special-scientific-interest-appeals/?lang=en>)

Appeals must be made in writing to the Planning Inspectorate who will consider it on behalf of the Welsh Ministers.

The Planning Inspectorate

Crown Buildings

Cathays Park

Cardiff

CF10 3NQ

Tel: 029 2082 3892

Email : wales@pins.gsi.gov.uk

You will need to state the grounds on which you are making the appeal and enclose a copy of the decision being appealed against as well as any other relevant documentation.

Your appeal must be received **within 2 months** of the date of the notice telling you about the decision you want to challenge¹. You should also send a copy of the appeal to us at Natural Resources Wales.

The appeal may be dealt with by an exchange of written statements, at a hearing, or at a Local Inquiry. You will be asked to indicate which you would prefer. In any case, the appeal will be decided on the basis of the evidence put forward.

After receiving your appeal, the Planning Inspectorate will write to explain what will happen next, in more detail.

Withdrawal or modification of SSSI Consents: Payment if you have suffered loss

You may be eligible for a compensation payment if you will suffer loss as a result of the modification or withdrawal of a consent previously issued to you. If you feel you should be considered for compensation please write to us at the address shown on the covering letter.

¹ Or, where the appeal relates to the failure of a decision being made, within two months of the expiry of the four month period from the date of your notice to NRW notifying them of your intention to carry out the operation(s).

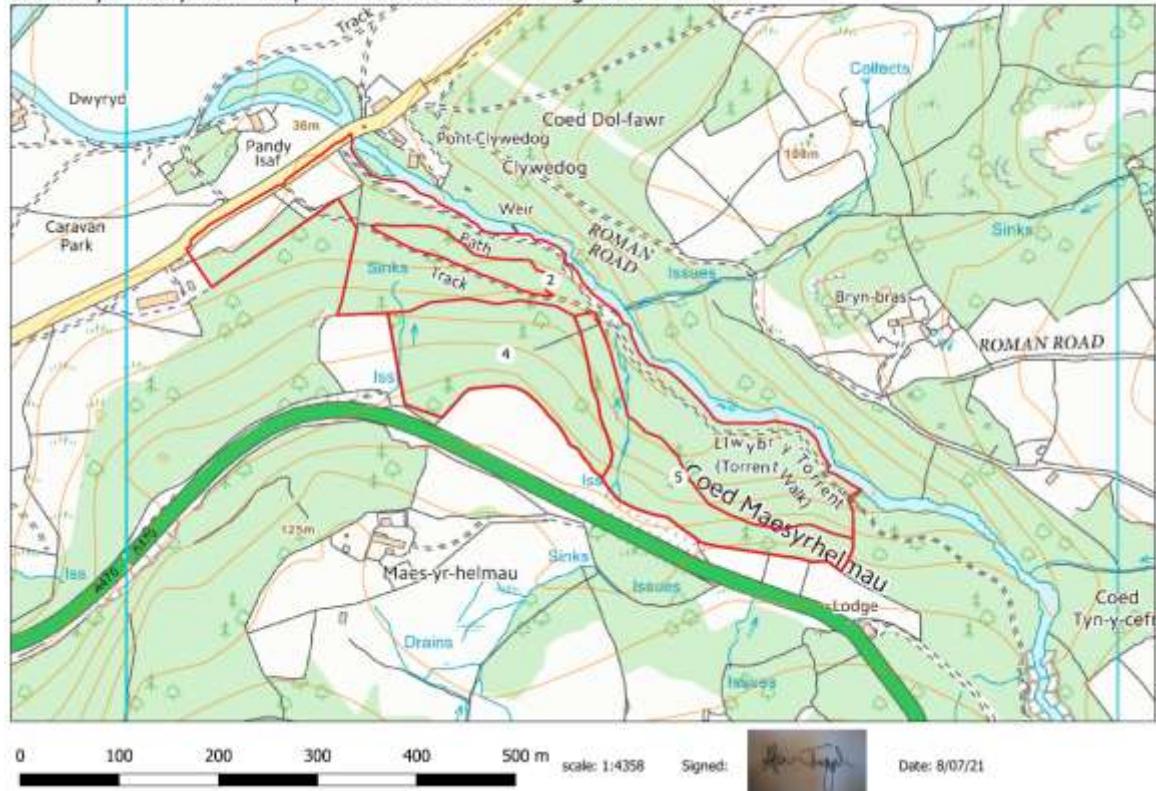
Full proposal

Appendix 1

Celtic Rainforest Project Ancient Woodland Survey: See attached.

Map

Coed Lwybr Caerynwch - map for FLA 2021 - site centre grid ref SH754185



From Ancient Woodland Report Adam Thorogood (Coed Cadw) Survey date:
Sept 2020:

Celtic Rainforest Project 2020 – Woodland Survey



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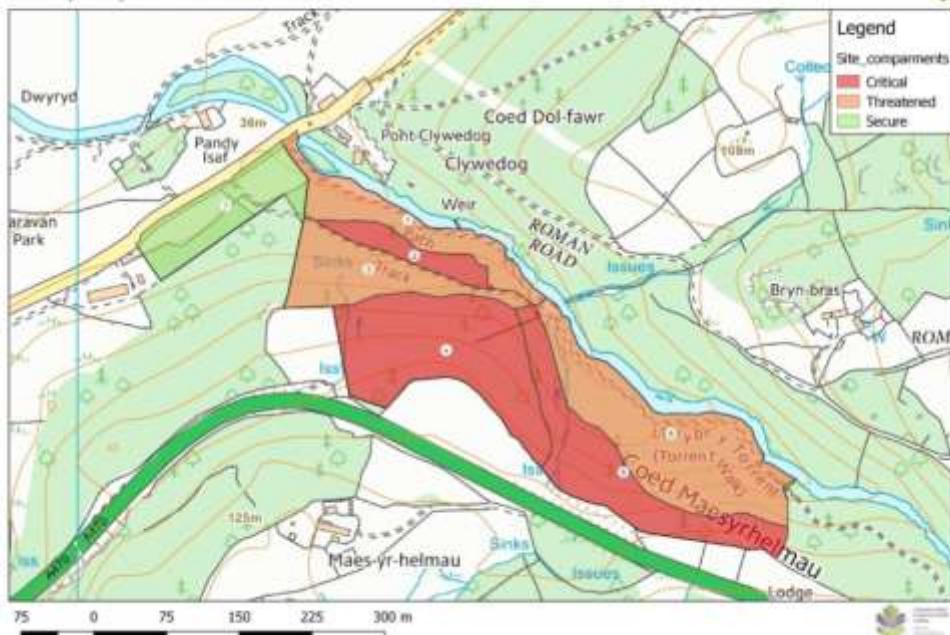


NATURA 2000



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WOODLAND
TRUST

Coed Llwybr Caerdydd - Ancient Woodland Condition



Celtic Rainforest Project 2020 – Woodland Survey



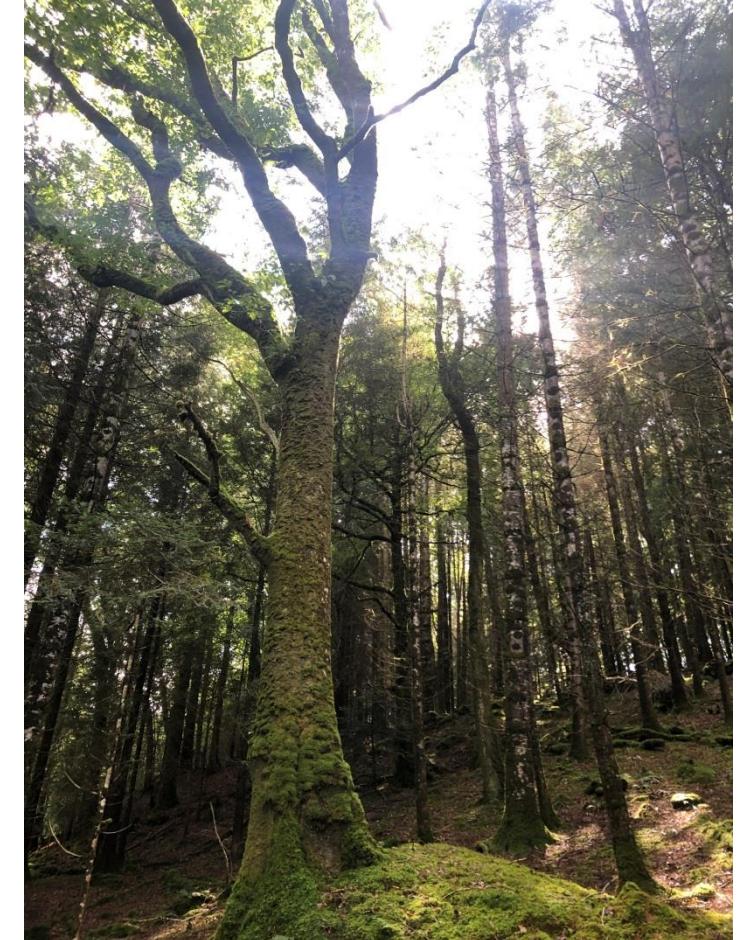
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Ancient Woodland Survey

Coed Llwybr Caerynwch

Adam Thorogood (Coed Cadw)
Survey date: Sept 2020





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Celtic Rainforest Project 2020 – Woodland Survey

Site Name: Coed Llwybr Caerynwch	Owner: Jon Needle	Woodland Size: 8.82 hectares	Grid ref: SH754185
Woodland description: (AWI type, NVC category, stand types)			
Coed Llwybr Caerynwch is an ancient woodland on the south-side of a steep river gorge to the east of Dolgellau in the county of Gwynedd. The entire wooded part of the site sits within the Meirionnydd Oakwoods Special Area of Conservation (SAC), also forming part of the Coedydd Dyffryn Wnion SSSI. According to the Ancient Woodland Inventory Wales (AWI), the site contains areas of plantation on ancient woodland (PAWS) and areas of restored ancient woodland (RAWS), however, the areas of RAWS are incorrectly mapped and in fact the PAWS area is much larger due to the existence of stands of Western red cedar throughout the site. The higher slopes contain stands of Western hemlock and Western red cedar and close to the river and the lower sections of the gorge, there are stands of grand fir and again Western red cedar. There are also small cohorts of <i>Northofagus</i> planted within the conifer blocks. The lower sections of the site contain the most intact semi-natural habitat, supporting sessile oak, ash, birch woodland with a holly and hazel understorey, however large mature beech pose a threat to these areas through over-shading, leaf litter and seeding. Where the understorey is largely intact, it is in areas of wet woodland into which feed the several spring-lines and issues which descend from the higher parts of the site. These areas support mature ash, wych elm and sycamore; most of the ash onsite show signs of chalara ash dieback. In terms of the National Vegetation Classification (NVC), the site supports fragmented remnants of types W9 (in the lower, wetter areas) grading into W10 and W11, occurring higher up. Higher elevations contain areas of exposed bed rock with presumably thin soils, it is on these slopes that the stands of hemlock and cedar have been planted. Throughout these compartments can be found large remnant broadleaf specimens, sessile oak, small-leaved lime, holly and some sycamore, all surrounded and almost over-topped by the plantation conifers. The grand fir stand in the north-west section of the site has suffered some wind throw and wind snap. Despite the several threats to the site's ecological integrity, there are lots of opportunities for sensitive restoration work, which will yield a flow of commercial soft wood timber.			
Access/Infrastructure:			
The site contains a very popular public access path which runs along the gorge formed by the flow of the Afon Clywedog, the "Torrent Walk." There are old tracks which run through the site and these could possibly be used/reinstated for timber extraction. There are two fields within the ownership boundary in the lower west of the site which could be used for forestry vehicle access, from the minor road which comes off the A470, these are currently grazed by a local farmer but could also provide some space for timber stacking.			

Celtic Rainforest Project 2020 – Woodland Survey



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Specific threats: (disease, invasive species)

Threat to semi-natural habitats and plant assemblages from excessive shading, needle litter and seeding from non-native conifer and broadleaf (beech) species.

First steps:

- Carry out timber inventory in conifer compartments in order to establish standing timber volume and put together felling licence for phase 1 of works.
- Apply to NRW for SSSI consent.
- Look to reinstate tracking infrastructure in order to gain access to compartments 3,4 and 5.
- Consider timber stacking area in adjacent fields within site ownership.

Cmpt. (See map below)	Compartment Description – Including Tree Canopy, Understory/Regeneration species: (Red = Considered Non- Native/impactful) (Green =any notable, pre-plantation, veteran or ancient trees)	Ground Vegetation (Green =Considered an Ancient Woodland Indicator Plant) (Red = Considered Non- Native/impactful)	Other Important Features (deadwood, archaeology, epiphytes/ other biodiversity. Green- Considered to be indicative of ancient woodland)	Threat Level (Secure / Threatened / Critical – described below)	Management Recommendations (Priority Level in Brackets – described in appendix)
1	RAWS compartment following river and its southern bank. Canopy composed of large mature sessile oak and occasional small-leave lime but dominated by mature beech with large spreading crowns. Good bryophyte diversity on broadleaf trunks. Lower canopy and shrub layer made up of beech and holly with occasional hazel and hornbeam. Lots of beech regeneration meaning that on the	Wood melic, Greater wood rush, Polypody fern, Enchanters night shade, Yellow pimpernel, Honeysuckle, Remote sedge, Wood sedge, Herb Robert, Dog violet	Lichen: <i>Thelotrema lepadinum</i> on hornbeam close to river	Threatened	<p>The main threat to this compartment is the presence of large seeding beech which dominate parts of the canopy. Beech and conifer regeneration shade out the understorey.</p> <p>Consider the phased removal of several large beech. This will have to be carried out carefully and sensitively due to the nearby dwellings, PRoW and riparian ecology. Priority 3</p> <p>Remove conifer and beech regeneration. Priority 2</p>

Celtic Rainforest Project 2020 – Woodland Survey



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	whole the native ground flora is shaded out. Occasional <i>wych elm</i> and wild cherry.				
2	Thin strip of <i>Western red cedar</i> plantation, contains several large remnant <i>sessile oak</i> as well as mature beech and <i>hornbeam</i> . Very dense stand with dieback of suppressed cedar stems. Sparse understorey.			Critical	<p>Halo thin around site native mature broadleaves. Priority 1</p> <p>Consider the phased removal of large mature beech (see above). Priority 3</p> <p>Thin the cedar gradually to begin opening up the stand with the aim of removing all the cedar within a few thinning cycles. Carry out a low thin (i.e. remove suppressed trees, leaving dominants) in order to retain wind firmness initially. Priority 3</p> <p>Monitor understorey for broadleaf regeneration, this should begin and increase as the thinning operations open up the stand. Monitor also for cedar regen, if this starts dominating then begin to remove coning dominants in next thin. Priority 3</p> <p>Care must be taken with this stand as it provides a wind buffer for the large broadleaves in the adjacent compartment.</p>
3	<i>Grand fir</i> PAWS compartment. Has suffered wind throw and snap which leaves areas of the stand very open with lots of bramble growth in understorey. Also mature <i>ash</i> which have dying crowns due to ash dieback which add to high light levels, <i>hazel</i> is doing well in these conditions. Line of large <i>beech</i> on border with cmpt 4 have seeded on to the edge of this cmpt creating dense pole stage beech stands mixed with similar age ash which is dying. Elsewhere, grand fir is	Brambles, <i>Hart's tongue fern</i> , <i>Opposite-leaved golden-saxifrage</i> , <i>Enchanter's night shade</i> , <i>Scaly male fern</i> , <i>Broadbuckler fern</i> , <i>Wood speedwell</i> , <i>wood sorrel</i> , <i>wood avens</i> , <i>Wood sedge</i> , <i>remote sedge</i> , <i>Sweet wood ruff</i> , <i>Bluebells</i> , <i>Lords and ladies</i> , <i>Dog rose</i>	Signs of past used in charcoal platforms and possible sawpit	Threatened	<p>Sensitive, selective thinning of grand fir, beginning with halo thinning around mature broadleaves. Stand structure is already a lot more open than other conifer compartments and therefore thinning doesn't need to be as systematic. Priority 2</p> <p>Cut back bramble in openings created by wind throw and possibly underplant with site native broadleaves if regeneration is not forthcoming. Priority 3</p> <p>Consider the phased removal of large mature beech on compartment boundaries. In safe areas, consider ring barking large beech in order to create large dimension</p>



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Celtic Rainforest Project 2020 – Woodland Survey

	quite open and understorey displays hotspots of ferns. Mature sessile oak, small-leave lime, downey birch, wild cherry and sycamore dotted throughout cmpt. Also, small cohorts of northofagus (6 trees in each). Lots of ash regeneration.				standing decaying wood. Priority 3
4	Dense, dark Western hemlock PAWS on the higher slopes of the site. Lots of areas of craggy exposed bedrock. Throughout the hemlock matrix are several very large beech, sessile oak, occasional suppressed downey birch and a cluster of large small-leaved lime in the south western corner of the site, close to the A470. One large scots pine on southern boundary.		Lichen: <i>Stenocybe septata</i> on old holly	Critical	<p>Sensitive halo thin to gradually release suppressed broadleaves (mainly oak, lime, holly) from surrounding hemlock matrix. Priority 1</p> <p>On next thinning operation (i.e. 3 to 5 years later) thin the Western hemlock using graduated density thinning system. Priority 4</p> <p>Monitor understorey for hemlock regeneration, remove if preventing advance broadleaf regeneration. Priority 3</p> <p>Promote broadleaf regen through targeted thinning around regen hotspots. Priority 4</p> <p>Overtime the hemlock will make up less and less of the canopy with mature broadleaves achieving windfirmness and seeding into understorey.</p>
5	Western red cedar PAWS compartment on steep slopes with large mature beech, sessile oak and horse chestnut along top southern boundary. Riparian zone contains suppressed semi-natural assemblages with small-leaved lime, ash and wych elm, over W9/10 ground flora	Hard fern, Enchanter's nightshade, Scaly male fern, Opposite-leaved golden-saxifrage, Valerian, Remote sedge, Wood sedge, Barren strawberry, Wood speedwell		Critical	<p>As for cmpt 4 above. Halo thin around mature broadleaves. Riparian edges should be treated as a feature during halo thin. Priority 1</p> <p>...followed up by graduated density thinning across the cedar matrix. Priority 4</p>
6	RAWS compartment following the river gorge and higher slopes above to the south. Contains the most intact semi-natural habit of all cmpts, mainly ash	Alexanders, Tufted hair-grass, Wood avens, Dog's mercury, Dog rose, Sweet woodruff, Wood sorrel, Meadowsweet,	Lichen: <i>Sticta sp.</i> on ash trunks and branches within W9 hotspots. Lichen: <i>Thelotrema</i>	Threatened	Threat of shading and seeding from adjacent conifer compartments will be reduced through critical works taking place outside of this compartment.

Celtic Rainforest Project 2020 – Woodland Survey



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	dominated wet woodland (W9) with wych elm , alder , sessile oak , hazel and occasional small-leaved lime . Large areas are dominated by huge mature beech and beech regeneration in understorey. Occasional hornbeam and large horse chestnut . Grand fir regeneration in places	Nettles, Bramble, Creeping buttercup, Woundwort, Honeysuckle , Remote sedge , Hard fern , Greater woodrush , Wood sorrel , Wood sedge , Bilberry , Opposite-leaved golden-saxifrage , Wood speedwell	<i>lepadinum</i> on old hornbeam.		Remove conifer regeneration. Priority 3 Reduce the impact of seeded, pole stage beech from parts of the compartment by removing. Priority 2 Consider the phased removal of large mature beech on compartment, particularly the shading of riparian and wet woodland understorey. In safe areas, consider ring barking large beech in order to create large dimension standing decaying wood. Priority 3
7	Fields in the lower part of the site close to minor road. Not included as part of this survey.				Look into using fields for timber stacking. Priority 1

See maps below.

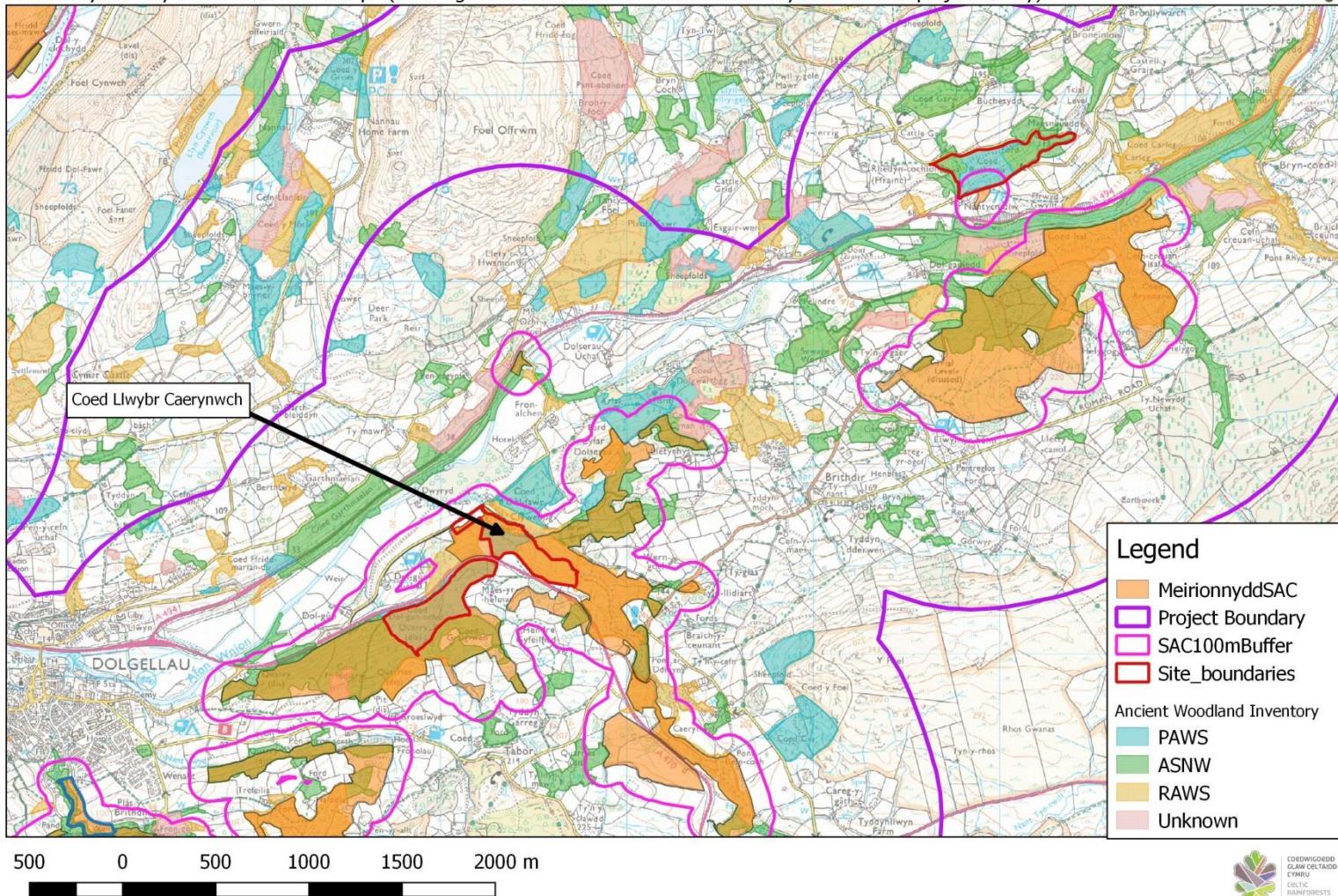


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Celtic Rainforest Project 2020 – Woodland Survey

Coed Llwybr Caerynwch in wider landscape (showing two other sites that have been surveyed for the CR project locally)





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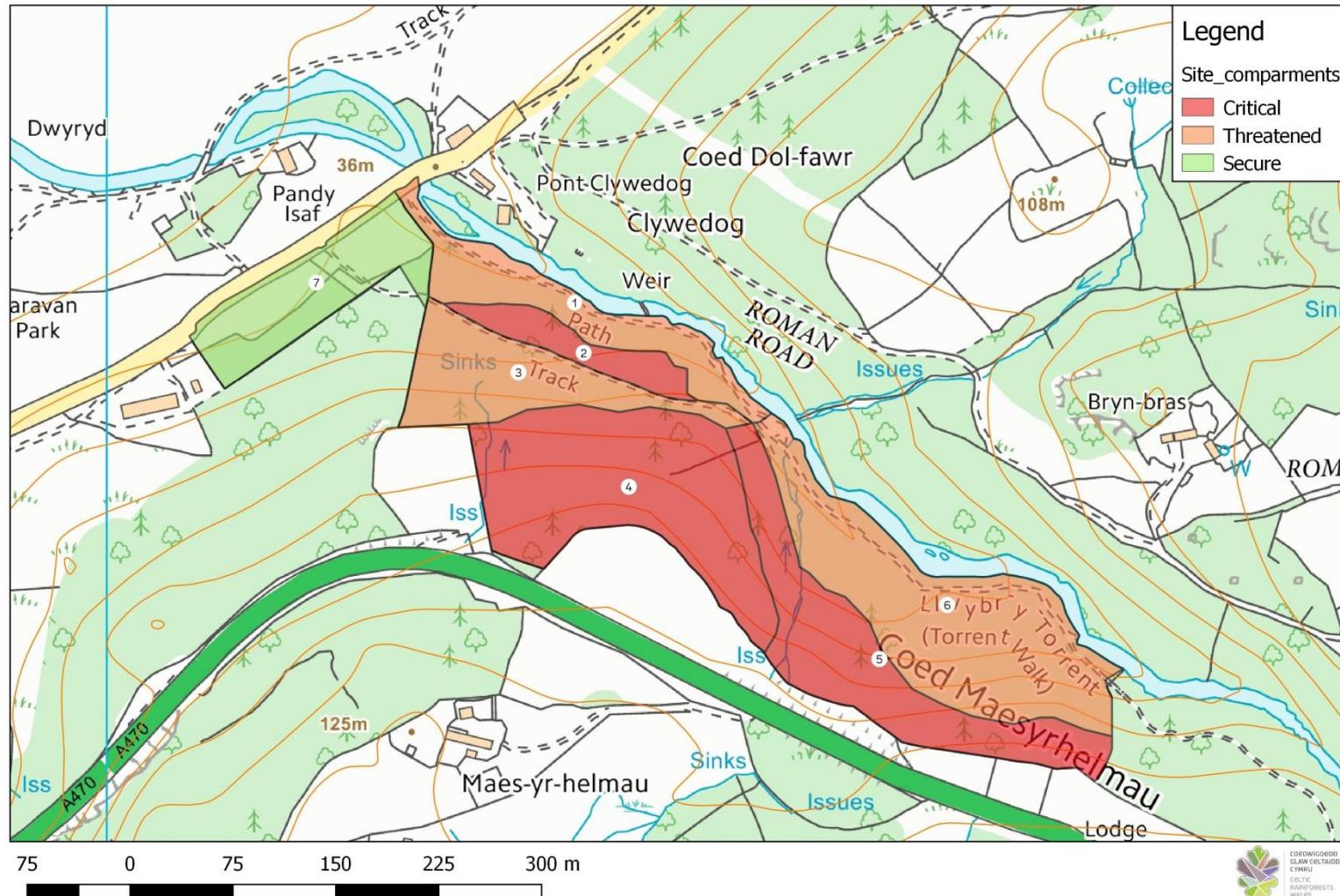
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Coed Llwybr Caerynwch - Ancient Woodland Condition



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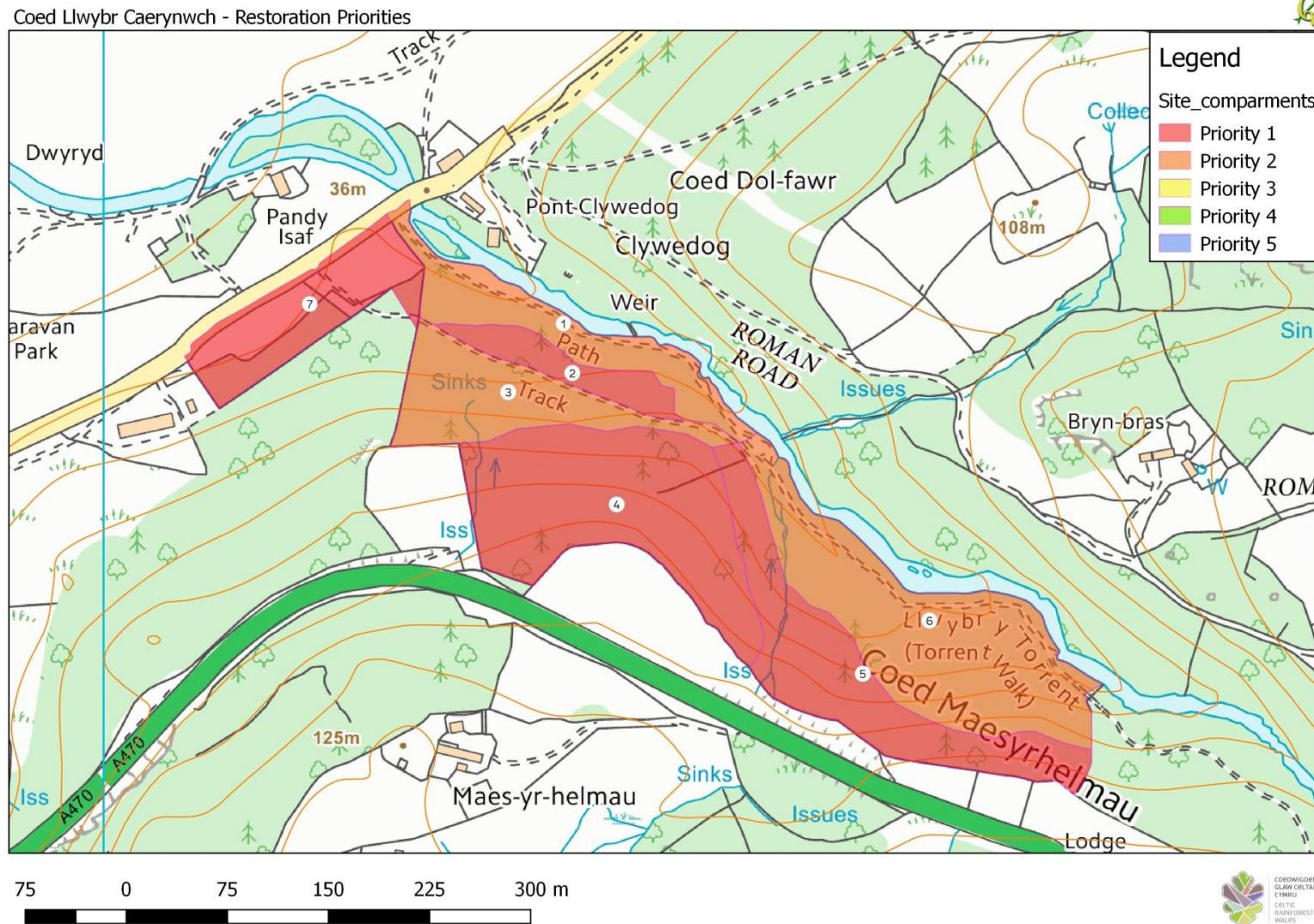
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Coed Llwybr Caerynwch - Aerial (taken from Bing)



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Tithe map: 1 (1838-1855) Showing site in ownership of John Richards of "Dolgun Uchaf & Maesrhelme" taken from places.library.wales

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Ancient Woodland Remnant Features



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This report identifies the visible remnants of the ancient woodland still remaining on the site. Action to conserve and enhance these features is prioritised based on the level of threat, with attention being directed to those most at risk. The threat levels of the site (or compartments within the site) are considered in three categories; those being secure, threatened and most critical. The categories are colour coded for ease of identification with the document:

- **Secure:** likely to remain the same or improve given current conditions.
- **Threatened:** unlikely to be lost in the short term, given current conditions, but long term survival is doubtful without intervention.
- **Critical:** need urgent action to avoid irreversible, loss or serious deterioration.

Furthermore, a scoring system of 1 to 5 is used to help prioritise further in considering the short-term management aims (1 being highest priority), which will also take into account various operational constraints or other objectives:

- **Priority 1:** Critical works to offset an immediate risk e.g. halo thinning of dying pollards – Immediate action as is reasonably possible.
- **Priority 2:** Pressing work to threatened areas – Undertake within 1 year.
- **Priority 3:** Works definitely to be completed in plan period – Undertake 1-3 years.
- **Priority 4:** More medium term work priority, might carry over into next plan period – Undertake 3-5 years.
- **Priority 5:** Longer term priorities e.g. thin to remove the last 10% of conifers on the site – Undertake 5-10 years.

Wherever possible, the approach is about gradual change, in particular the management of light levels, as most threats to remnant ancient woodland features may come from either excessive shade or light. The emphasis is not simply on replacing the plantation crop with native trees, and should seldom require rapid or complete removal of non-native conifers. Indeed, depending on the owners' objectives for the site, the report makes recommendations

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on the potential for growing quality softwood timber through a more semi-natural system of silviculture. Sometimes, circumstances may mean that the most appropriate management is to fell and replant and where this is recommended the report will outline the reasons why.

A precautionary approach should be adopted towards all work on ancient woodland sites. This report attempts to identify as many important, and visible, features as possible. However it is not exhaustive in its scope, and there will likely be additional features found in future. Therefore it is prudent to assume that there may be vulnerable features present within any area of operations, and to therefore proceed with a degree of due caution at all times. An example of this is the importance of woodland soils, and their microbiology. Soils are particularly vital within ancient woodland, and it is crucial that they are considered during woodland management, irrespective of whether any more conspicuous features have been identified above ground.

General guidelines for best practice on ancient woodland sites are as follows:

- Avoid the sudden increase in light levels reaching large diameter deadwood and broadleaved stumps.
- Gently ‘halo’ thin around mature /ancient or veteran broadleaved trees and avoid excessive thinning and therefore exposure.
- Avoid harvesting machinery tracking across the rooting area of mature /ancient or veteran broadleaved trees and large diameter broadleaved deadwood /stump. Erect temporary fencing and/or hazard tape to protect such areas if at risk.
- Avoid harvesting machinery tracking over areas ancient woodland flora ‘hotspots’.
- Avoid creating brash piles on ancient woodland flora ‘hotspots’.
- Protect watercourses from damage and diffuse pollution through the creation of log & brash crossing points, brash mats, cut –off trenches and silt traps etc.
- Refuelling locations to be kept away from watercourses and ancient woodland features. Ensure contractor has spillage kits.