

Scheme outline and grazing plans for Coed y Parc, Lletywalter and Garth Gell



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Grazing plans for Coed y Parc, Lletywalter and Garth Gell

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The first part of this document provides details of three of the four sites included in the Meirionnydd grazing project, the first (Coed Abergwynant) has been assessed and a grazing plan produced using the Woodland Grazing Toolkit (see Woodland grazing plan Abergwynant). Rather than completing a full toolkit for the three remaining sites a new template has been drawn up which enables a quicker assessment of the main features and presentation of recommendations for a grazing plan.

The second section outlines the principles of local grazing schemes and details a proposal for the design of a Meirionnydd Oakwoods local grazing scheme encompassing all four sites with the possibility to include other land as the scheme develops.

Site 2: Coed y Parc

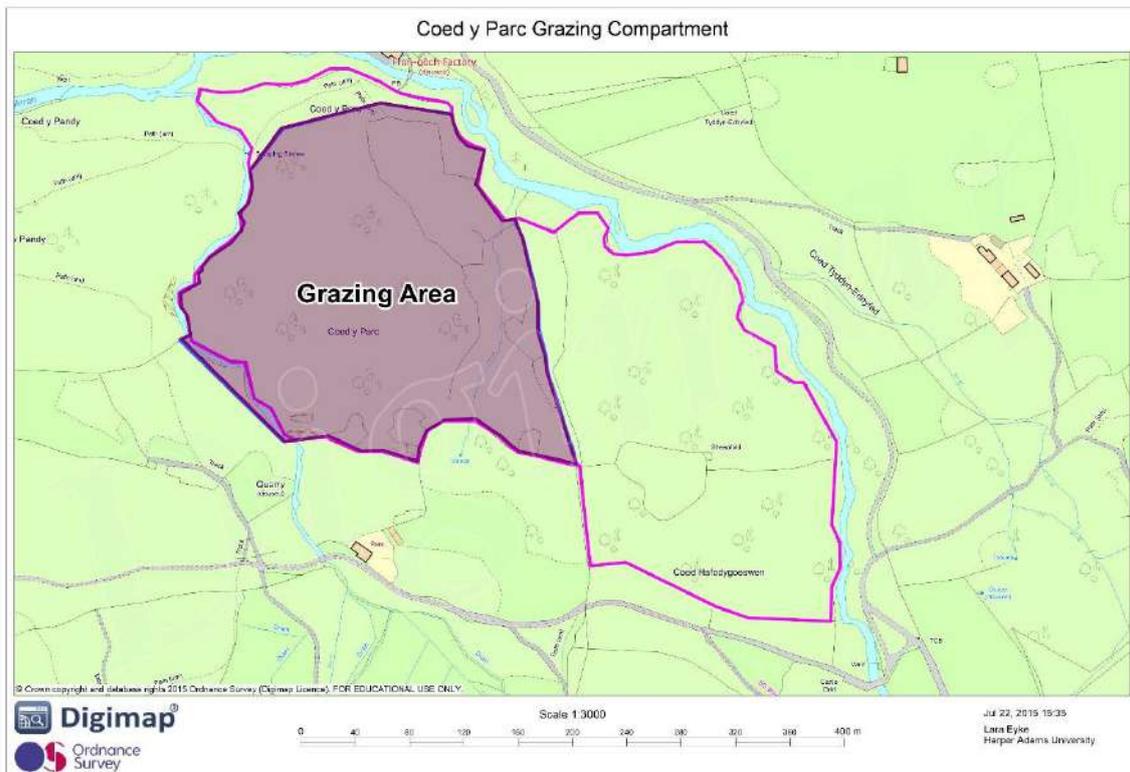
Part 1: Site description

Grid Reference: SH735 167

The entire site encompasses:

- 3ha of mixed broadleaved woodland with understory
- A large ravine within the woodland

Coed y Parc A is a mature oak woodland with a shrub layer dominated by holly that forms thick stands in some areas, but is sparse in others. There is common regeneration of rowan, however oak regeneration is not so frequent.



Farming operations

The woodland has been ungrazed for 20 years. There is a Glastir management agreement for the site, which includes managing invasive species.

Historical and archaeological interest

There is evidence of previous farming activity from the original dry stone walls that roughly divide the site into its differing habitats and are an important historical feature of the site.

Landscape and cultural value

The woodland is an important landscape feature as part of the Mawddach woodlands.

Designation

Coed y Parc is a designated SSSI as part of the Cadar Idris SSSI, and a SAC as part of Cadar Idris SAC, for dormice, and is located within Snowdonia National Park.

Flora

The field layer is mostly short and mossy with some bilberry and heather in the ground layer where light is able to penetrate the canopy. Lichens and bryophytes are present but could do with more light and air flow. There are grazing sensitive species present such as bluebells, bilberry and brambles which can be affected by grazing.

Fauna

Dormice are present in Coed y Parc B, the woodland block adjacent to the grazing area in Coed y Parc A. Priority species of birds found in the woodland are wood warbler, pied flycatcher and willow warbler as well as garden warbler, spotted flycatcher and bullfinch.

Grazing influences

There has been a lack of grazing in the woodland area at Coed y Parc which has resulted in dense thickets of holly and regeneration of rowan, reducing light levels and creating a closed canopy.

Current land use and management

Domestic stock management

There is currently no formal grazing agreement for Coed y Parc, however there is a Section 28 consent agreement giving consent for grazing in compartment A.

Nature conservation

Section 28 consent has been given for grazing in Coed y Parc A. Invasive species rhododendron and western hemlock are being managed and controlled under Glastir agreements.

Part 2: Objectives and management recommendations

Key features/Objectives

The key SSSI features of Coed y Parc are semi natural woodland, the bryophyte and lichen and key woodland bird species assemblages plus bat and insect interest. It forms part of the Meirionnydd oak woods and bat sites SAC.

Objectives	Woodland
Habitat structure	A good mix of tree ages, increased variation in tree height and age. Understory of hazel continues to be an important feature. Most areas will have a closed canopy but there will be gaps present with a more open structure underneath. Good ground layer of heather and bilberry
Desired future condition	Oak dominated woodland with birch and occasional ash and alder with hazel and some willow understory in places. Holly and sapling regeneration levels are reduced. Increased lights benefits lichen and bryophytes. Bramble is reduced and focussed in discrete areas along edges of rides and woodland.
Target value and limits of change for attributes	% shrub cover, % of holly and % of canopy cover/light levels, development and presence of lichen on trunks

Current condition

Table 1: The current condition and suitability of grazing at Coed y Parc

Habitat	Current condition	Suitability of current grazing
Woodland	Mature oak woodland with a shrub layer dominated by holly. Some rowan is regeneration but there is little oak regeneration. Glades are absent and the field layer is short and mossy. There is a problem with western hemlock regeneration from the neighbouring plantation.	Inadequate – grazing levels too low

Key management features

This section provides the detail of the factors which determine how the grazing management of the site should be done. Once these have been identified the grazing plan can be drawn up.

Table 2 Factors affecting the management of key features at Coed y Parc

Factor	Comment	Positive or negative Need for action
Tenure:	Land owned by RSPB	Positive
Grazing Rights:	There are no grazing rights held for the land and no formal grazing agreement at present	Action needed
Grazing animals:	No significant non-domestic grazing livestock	Positive
Grazing resource:	RSPB owned Welsh Mountain ponies. Sheep may be available from a neighbouring farm.	Negotiations needed with neighbouring farmers for sheep. Pony system to be set up by RSPB.
Herbivore foraging patterns	Pulse pony grazing in conjunction with hand management of holly initially. Consider allowing access for neighbouring sheep.	Establish grazing system
Physical features:	Site has a steep ravine on the western boundary which could be hazardous to livestock.	Consider safety fencing
Geology/historical/topography	Part of the site is steeply sloping which could be a safety issue	Safety and infrastructure issue
Recreation-signage/dogs/stock	Footpath passes through the site. There will be a need to install signage, particularly when stock are on site	Need for interpretation Positive – need for stock checkers
Biological features	SSSI/SPA feature: assemblage of key woodland bird species SSSI/SAC features: Bryophyte, lichen and fern assemblages SSSI/SAC: dormice	Consider impact of grazing. Time grazing to avoid impact on dormice.
Knowledge of key features	There is sufficient knowledge of the key features and what is considered to be favourable condition	Positive
Conflicting objectives	Potential conflict for dormouse management	Avoid grazing before late June.
Practical livestock management	Ponies to be sourced from the RSPB native pony herd currently at Llyn Vyrnwy. Sheep could possibly be sourced from the neighbour to the west of the site.	Flying pony herd system needs to be established and negotiations and
1. Where to source		

Factor	Comment	Positive or negative Need for action
livestock to provide the desired grazing pattern		agreements set up with the neighbour.
2. Access to water	Natural water is available	Positive
3. Access to site	Need to ensure access to tend to any casualties which would involve some tree clearance and path works in Coed y Parc B. Access for sheep could be through a new gate in the south west wall. Quiet ponies to be walked in through Coed y Parc B access	Need for action: path works, gate installation, discussions with neighbour.
4. Handling facilities	Simple stock holding pen to be installed	Action needed
5. Availability of alternative grazing if needed	Ponies can go back to Vyrnwy or alternative sites in Meirionnydd. Sheep can be excluded and retained on their holding	Positive
6. Supplementary feeding requirements	No supplementary feed. Livestock will be removed after pulse of grazing Mineral blocks could be situated in areas where grazing is to be concentrated	Positive
7. Quality of grazing available	Grazing is of low quality and fairly sparse. Little shrub layer with some grass cover. Abundant Holly which would be taken later in the year	Monitor stock and habitat condition
8. Fencing and boundaries	The stock net fences to the north and the inner boundary will need replacement within 5 years. Remainder of the boundary in the grazing compartment to the south and west needs new fence immediately. To prevent livestock accessing the steep sides of the ravine it will need to be fenced.	Stock proof boundaries need installing
Biological processes	There is a large thicket of holly that needs thinning. Very little oak regeneration due to high level of shade in the wood. Needs grazing to prevent further dense growth of saplings	Action needed
Availability of resources funding and skilled labour	Funding required for infrastructure and vegetation management, monitoring and pony grazing scheme. Possible payments to sheep grazier.	See costs table for funding required
Obligations, designations and policies	Woodland is in Glastir. Section 28 consent required for capital projects.	Obtain S.28 consent for capital works
Community objectives	Engagement with the community would facilitate management of the wood	
Socio Economic concerns	Opportunity for the neighbour to graze sheep on the land would help to sustain farm incomes.	Positive

Recommendations for Coed y Parc

Suggested grazing pattern

Habitat	Grazing pattern
Woodland	Light grazing from late June to September, fitting in with the requirements of dormice. Selective heavy stock (ponies) used initially with sheep later introduced to graze between September to January. Alternatively to reduce the density of trees and increase browsing of holly; ponies could graze December to February.

This suggested grazing pattern would reduce ground flora and inhibit regeneration of new trees which is needed to avoid decreasing light levels. Ponies would be used to break up and penetrate the thicker vegetation through grazing, browsing and trampling. Assessment of their grazing impact would allow a decision to be made on whether to extend the grazing period into the winter to encourage them to eat the holly.

A period of sheep grazing, once the thicker vegetation has been controlled, would further reduce sapling regeneration. The effect of sheep can be seen in the neighbouring woodland.

Suggested grazing plan

Coed y Parc Woodland Grazing Plan (3Ha)

	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
A Woodland 3Ha							Summer grazing, late June to October. 4 ponies			Consider extending pony grazing		
	Sheep grazing up to 50 sheep									Sheep grazing up to 50 sheep		
Conditions required	Oak dominated woodland with birch, occasional ash, alder, hazel and some willow understory in places. Holly levels to be reduced and dense levels of sapling regeneration reduced. Increased light levels will benefit lichen and bryophyte. Bramble to be reduced and focussed in discrete areas along edges of rides and woodland. Keep an eye on forage levels to ensure adequate keep for stock.											
Supplementary feeding	Mineral licks may be used to target grazing											
These stock numbers are a guideline only, conditions on the ground will vary month to month and year to year so stocking levels will need to be adjusted to achieve the conservation objectives and ensure good animal welfare.												

The suggested grazing system is to graze Coed y Parc A with low densities of Welsh Mountain and Carneddau ponies with a pulse of sheep grazing. Because the site is quite small; close monitoring will have to be carried out. Ponies should be lightly handled so they can be caught but not tame enough to interfere with visitors to the site.

Welsh mountain sheep would browse regeneration but regular stock checking would be needed to ensure they don't get stuck in brambles.

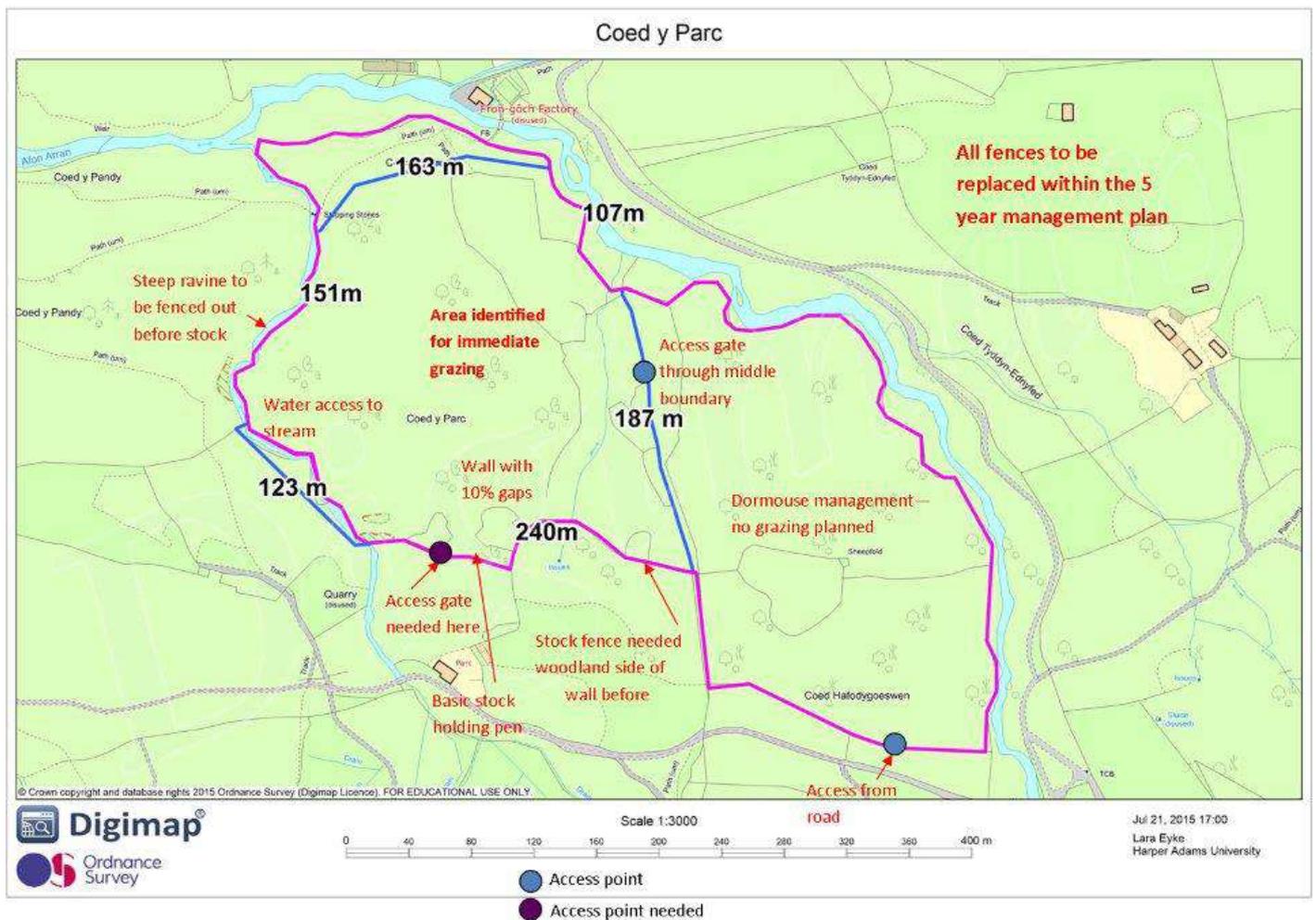
Infrastructure needed

Before grazing can start the external boundary of the site would need to be stockproofed and access for stock created. A boundary survey has been carried out to give an estimate of the work required. Details of the suggested work are given below and the costs and measurements of work identified. The boundary survey has been summarised on the following table

Fencing: The boundary fencing needs refurbishment or replacement around the entire perimeter of the site, with sheep netting. The boundary wall needs gapping for approximately 10% of the linear meterage and should have a stock netting fence to stock proof it.

Gates: One new stock access gate needs to be installed on the southern boundary if sheep are to be grazed from the adjacent fields. A kissing gate with lockable stock gate would be installed to replace internal access gate.

Holly control: A holly management programme should be drawn up with a target hectareage cut and treated per year to reduce the cover. Once the density has been decreased the livestock management will help to reduce further encroachment.



Cost

Guide prices for capital works, livestock and equipment for RSPB and WT Meirionnydd sites

Site: Coed y Parc	Cost (excl. VAT)	Unit	Qty		TOTAL	
Capital works						
Fence line clearance (metres)	£ 4.00	metre	731	£2,924.00		
Fencing - stock fence 2 strand high tensile (metres)	£ 9.50	metre	490	£4,655.00		
Fencing in rock (metres)	£ 15.00	metre	481	£7,215.00		
Dry stone walling	£ 75.00	metre	24	£1,800.00		
Access gate 12ft	£ 420.00	each	1	£420.00		
Kissing gate metal with stock access gate	£ 700.00	each	1	£700.00		
Scrub clearance	£ 1,200.00	Ha		Pro rata depending on %cover		
Handling pen static pony	£ 2,200.00	each	1	£2,200.00		
Vegetation Works						
Holly cut and stem inject 3 people, 1 weeks, 15 man days @£540/day	£ 540.00	day	5	£ 2,700.00		
On-going Costs						
Signage	£ 1,000.00	site	1	£1,000.00		
Ongoing signage/ year	£ 100.00	site	1	£100.00		
Site project total (excl. VAT)				£23,714.00	£23,714	
Project total for infrastructure and stock leasing		£ 23,714.00		(total will depend on choices made for fencing and scrub clearance)		

Prices may have to be inflated by 20% in location where access is difficult.

Site 3: Coed Garth Gell

Part 1: Site description

Grid Reference: SH678 177

. The entire site (66ha) encompasses:

- 2ha of bog/ mire (in two separate locations of approx. 1ha each)
- 7.8ha of dry heath
- 53.2ha dominated oak woodland
- Some patches of ffridd

Only the western half made up of the bog/mire features, heath and woodland covering a total of 38.7ha will be grazed in the near future, with aims for the rest of the woodland to be grazed later.

The western compartment has a mosaic of woodland habitat types, and is made up of ancient wood pasture with large mature trees and more recent woodlands. There are large amounts of oak and rowan regeneration and a thick field layer of bilberry and heather. There is high lichen *Lobaria pulmonaria* and bryophyte interest which can be maintained and enhanced through woodland and grazing management.

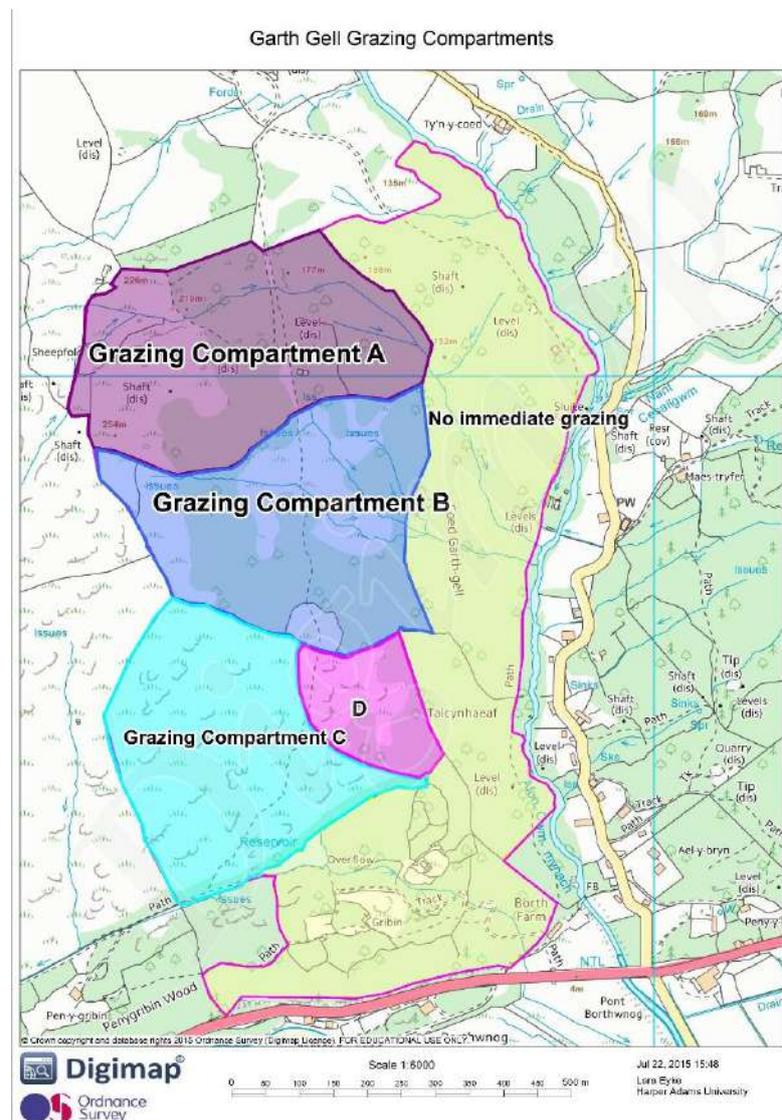
Farming operations

The woodland has been ungrazed for 20 years for the most part however there has been some pony grazing from Vernon Jones, who has seasonal grazing rights for 35ha. There is a Glastir management agreement for the site, which includes managing invasive species.

Historical and archaeological interest

There is evidence of previous farming activity from the original dry stone walls that roughly divide the site into its differing habitats and are an important historical feature of the site.

Landscape and cultural value



The woodland is an important landscape feature as part of the Mawddach woodlands.

Designation

Coed Garth Gell designated as a SAC for lesser horse-shoe bats and a SSSI for Atlantic oak woodland and is located within Snowdonia National Park.

Flora

Heathland – The dry heath on the upper western slopes consists of cross-leaved heath, bell heather and common heather. The heathland is gradually being invaded by birch and rowan and has some areas of mature birch stands with little shrub or field layers. There are also areas of scattered gorse and bracken.

Bog/ mire – This central area is dominated by Molina tussocks and is covered by birch, rowan and other scrub. There is little open water. Some desirable species present – bog myrtle is flourishing.

Grazing sensitive species –Bluebells, Bilberry and bramble are all present, and will be affected by grazing.

Fauna

Birds – Nightjar (likes open glades and early succession habitat) Pied fly catcher, tree pipit, cuckoo, (hawfinch, parts of all woodland blocks left ungrazed), lesser redpoll (thinning birches in key areas), garden warbler, wood warbler

Grazing influences

There has been a lack of grazing in the woodland area at Garth Gell which has resulted in high levels of holly regeneration, reducing light levels and creating a closed canopy. Lack of grazing on the heathland has resulted in a large amount of birch and rowan and parts of it are dominated by bracken. Lack of grazing in and around the bog has resulted in dense mat of Molinia tussocks and birch.

Current land use and management

Domestic stock management

There is currently no formal grazing agreement for Garth Gell. Evidence such as high birch and rowan regeneration shows the low grazing pressure throughout the site.

Nature conservation

Garth Gell is a SSSI so Section 28 consent would be needed before grazing and capital works to facilitate it could commence. The woodland was previously in the Better Woodlands for Wales scheme to help with the removal of invasive plant species. The site is currently in Glastir, which has helped fund rhododendron clearance in the western section.

Part 2: Objectives and management recommendations

Key features/Objectives

The key SSSI features of Coed Garth Gell are semi natural woodland, the bryophyte and lichen and key woodland bird species assemblages plus bat and insect interest. It forms part of the Meirionnydd oak woods and bat sites SAC.

Objectives	Woodland	Bog/mire	Heathland
Habitat structure	Closed canopy with some open areas with connecting rides between these features and to the heath and bog. A variety of tree ages with scattered mature and post-mature trees. Sections of understory and scrub layer.	Edges of bog grading gently into woodland. Some open water and reduced molinia tussocks	Mosaic of vegetation and scattered bracken. Varied height and ages of heather and heath edges grading into ffridd (1.6ha allowed to be left to natural succession. Edges grading into heathland and secondary woodland)
Desired future condition	Connecting rides within closed canopy allowing light penetration and increased ground flora interest. Sections of hazel understory and shrub layer of heather and bilberry, with bramble in discrete areas, fringing glades and rides. Holly will not be dominate. Missed woodland, oak dominated, with birch, hazel, rowan and ash and increased regen of oak and birch.	Free from encroaching scrub and continuing to cover at least 2ha. Bog myrtle will continue to flourish, molinia will be less dominant and reduced tussocks	Mosaic of vegetation including heather, bilberry, gorse and scattered bracken. Encroaching bracken will be reduced. Continue to support between 1 and 2 pairs of nightjar.
Target value and limits of change for attributes	% shrub cover, % of holly and % of canopy cover/ light levels, development and presence of lichen on trunks	% open water, size/ % molinia tussocks, % bog myrtle, indicator species	% and ages of heather, bilberry, gorse and bracken, % tree cover on ffridd, population surveys for nightjar.

Current condition

Table 3: The current condition and suitability of grazing at Garth Gell

Habitat	Current condition	Suitability of current grazing
Woodland	Mosaic of woodland habitat type, some areas have mature oaks with sizeable trees, large amounts of rowan and oak regeneration. Thick field layer of heather and bilberry	Inadequate – grazing levels too low
Bog/mire	Large molinia tussocks and little floristic diversity, however bog myrtle does flourish. Some encroaching from rowan and birch and little open water	Inadequate – grazing levels too low
Heathland	Heathland gradually being encroached by birch and rowan. Little diversity of structure due to lack of grazing.	Inadequate – grazing levels too low

Key management features

This section provides the detail of the factors which determine how the grazing management of the site could be managed. Once these have been identified the grazing plan can be drawn up.

Table 4 Factors affecting the management of key features at Garth Gell

Factor	Comment	Positive or negative Need for action
Tenure:	Land owned by RSPB	Positive
Grazing Rights:	There are no grazing rights held for the land and no formal grazing agreement at present	Action needed
Grazing animals:	No significant non-domestic grazing livestock	Positive
Grazing resource:	RSPB owned Welsh Mountain ponies initially with cattle being an option later on. Cattle resource to be determined.	Negotiations needed with neighbouring farmers for sheep. Pony system to be set up by RSPB.
Herbivore foraging patterns	Livestock are expected to use the woodland for shelter and roam up onto the heath and mire. Feeding preferences will vary at different times of the year.	Monitor stock movements
Physical features:	Some steep slopes and rocky areas. Mine shafts are present in some areas but have been securely fenced.	Ensure mine shafts are safely fenced.
Geology/ historical/ topography	Evidence exists of historic gathering for the Hafod a hendre management system shown by the funnel shaped enclosure in grazing compartment C.	Ensure historical features are protected.

Factor	Comment	Positive or negative Need for action
	Some steep slopes	
Recreation-signage/ dogs/stock	Site is well used by walkers and has existing signage and interpretation. It would be necessary to install signs to advise of the grazing project and presence of livestock.	Install signage
Biological features	SSSI/SPA feature: assemblage of key woodland bird species SSSI/SAC features: Bryophyte, lichen and fern assemblages SSSI/SPA feature: Lesser Horseshoe bat	Consider impact of grazing. Mostly positive for target bird species
Knowledge of key features	There is sufficient knowledge of the key features and what is considered to be favourable condition	Positive
Conflicting objectives	Potential conflict for Hawfinch management but stocking levels will not be high enough to cause a problem	Negative
Practical livestock management 1. Where to source livestock to provide the desired grazing pattern	RSPB owned Welsh Mountain and Carneddau ponies available from Vyrnwy. Cattle may be grazed in future years once the rhododendron has been controlled. These could either be RSPB owned stock as part of the wider grazing scheme or may be available from local farmers.	Source cattle later in the project
2. Access to water	Natural water available in all units. Pasture pump or drinking bays will be needed by the reservoir.	Install pasture pumps/ drinking bays
3. Access to site	Via steep track from Fiddler's Elbow. There is currently no turning so access improvements are necessary. May be problems for recovery of casualty stock. Options could be explored for access to the site from adjacent properties.	Improve turning area. Investigate access options.
4. Handling facilities	Handling pen needed. This could be installed by the turning area.	Install handling pen
5. Availability of alternative grazing if needed	Possibly some alternative grazing in Coed y Parc ponies for short periods. Use of RSPB grazing hub to be investigated at Vyrnwy	Investigate possibilities
6. Supplementary feeding requirements	None suggested. Mineral blocks may be used to target grazing.	
7. Quality of grazing available	There is a good variety and plentiful forage available throughout the site. Presence of rhododendron poses a hazard to livestock	Control rhododendron
8. Fencing and boundaries	Entire site boundary needs to be stock proofed either with stock netting or gapping of walls and jump fences. Internal boundaries also need to be secure	Prioritise western section and schedule remainder of the work

Factor	Comment	Positive or negative Need for action
		throughout the project
Biological processes	Extensive rhododendron. Quite a lot of oak saplings that are above grazing height. Impenetrable thickets of holly	Management of rhododendron for stock safety. Manage holly through stem injection and cutting.
Availability of resources funding and skilled labour	Funding required for infrastructure and vegetation management, monitoring and pony grazing scheme. Possible payments to sheep grazier.	See costs table for funding required
Obligations, designations and policies	Section 28 consent required for capital projects.	Obtain s.28 consent for capital works
Community objectives	Engagement with the community would facilitate management of the wood	
Socio Economic concerns	Opportunities for training, potential for farming enterprise in the future as the scheme develops.	Positive

Recommendations for Garth Gell

Suggested grazing pattern

Habitat	Ideal grazing pattern
Woodland	light grazing July to September, with selective heavy stock (ponies)
Ffridd	May to October, with light stocking (non-selective animals) so succession is allowed
Bog/ mire	May to October, light stocking with non-selective stock
Heathland	May to October, grazed using selective and non-selective stock at a moderate level, and in the winter, non-selective animals and light stocking

This suggested grazing pattern would start to establish presence of grazing in the woodland. Low numbers of stock will have to be introduced into selected areas initially to allow for infrastructure to be installed and invasive species to be controlled.

Ponies will begin to browse and trample and improve the structure of vegetation. The area would be well suited to cattle at a later date. The site could probably be grazed year round with reduction in stock numbers during the winter.

Due to the way in which the site is divided there will have to be some compromise in timing of grazing as the habitat areas are not separated and will have to be managed together with areas of woodland and ffridd (as shown on the plan). Monitoring of the effects of grazing will inform the movement of stock between compartments.

Suggested grazing regime/plan

Coed Garth Gell Woodland Grazing Plan (38.7Ha)

	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
A and B Woodland and mire 24.5Ha							Late summer to autumn grazing initially. 10-12 ponies. Will alternate between sections A&B and C. Check pearl Bordered Fritillary food plants are not grazed. Cattle would be better as less selective.					
Conditions required	Connecting rides and glades within closed canopy allowing light penetration and increased ground flora interest. Diverse structure within woodland areas. Mire free from invading scrub and continuing to cover at least 2ha. Bog myrtle should continue to flourish and molinia be less dominant with reduced tussock size											
C Heath and woodland 11.1Ha					Summer grazing initially. 6 ponies or 30 sheep (sheep once bramble density is reduced). Alternate between sections A&B and C. Numbers can be increased to give the same stocking rate over a shorter period if needed.				Some later sheep grazing could extend into the autumn at low stocking rates if conditions dictate.			
Conditions required	Mosaic of vegetation including heather, bilberry, gorse and scattered bracken. Encroaching bracken will be reduced. Reduced birch but allowing natural early succession woodland and denser secondary woodland. Light stocking required to allow for succession.											
Supplementary feeding	No forage, blocks only to target grazing if needed, for example, to control bracken on the heath.											
<p>These stock numbers are a guideline only, conditions on the ground will vary month to month and year to year so stocking levels will need to be adjusted to achieve the conservation objectives and ensure good animal welfare.</p>												

Infrastructure needed

Before grazing can start the external boundary of the site would need to be stockproofed and access for stock created. A boundary survey has been carried out to give an estimate of the work required. Details of the suggested work are given below and the costs and measurements of work identified through the boundary survey have been summarised on the following table with per hectare rates for chemical and manual invasive control.

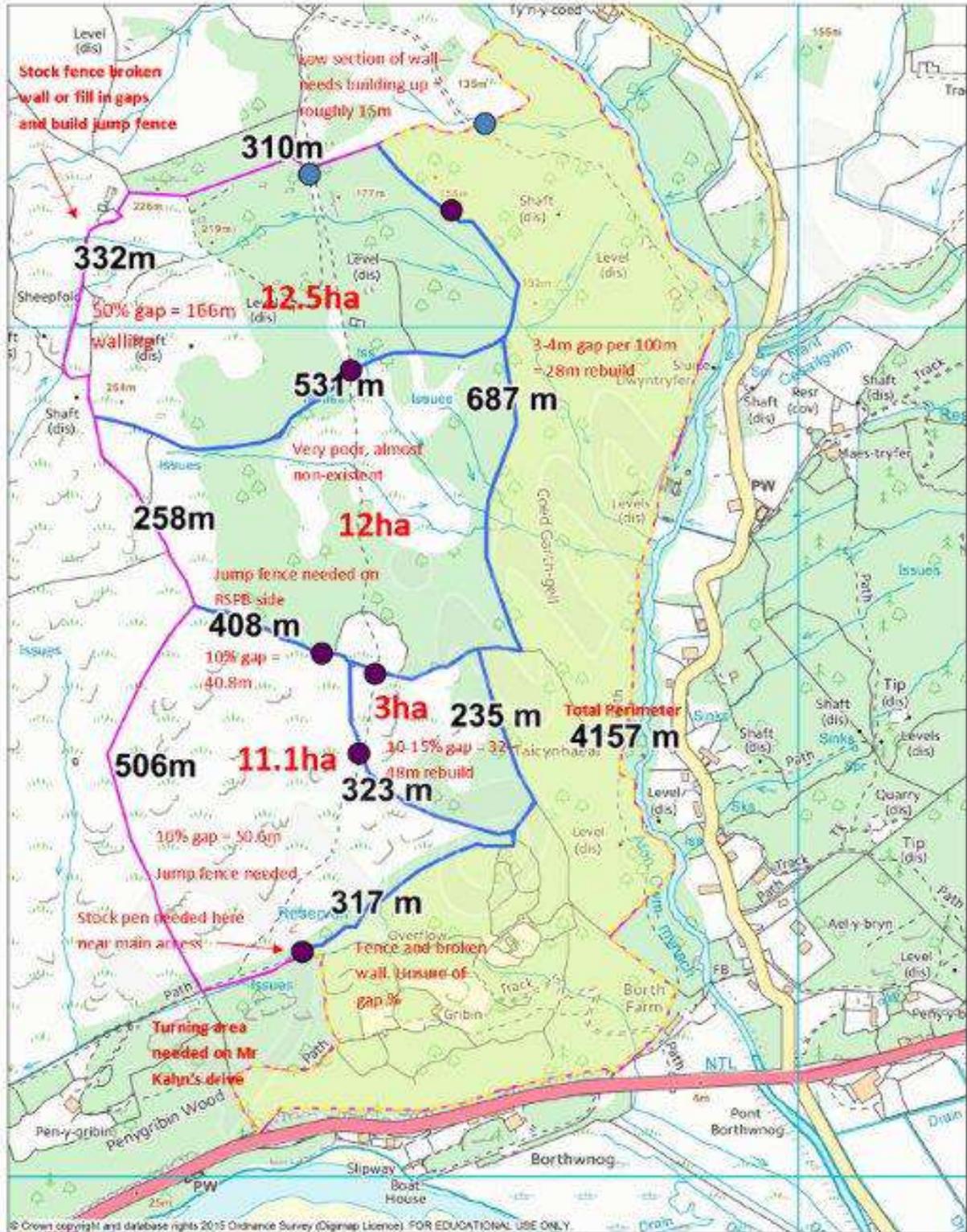
Fencing: The boundary fencing needs refurbishment or replacement around the entire perimeter of the site, with sheep netting or jump fence. The boundary wall needs gapping for approximately 10% -15% of the linear meterage with a higher percentage needed in some areas, and should have a jump fence to stock proof it. Internal boundaries also need stock proofing to keep compartments secure.

Gates: two new stock access gates need to be installed, one on the southern boundary and one on the internal boundary between compartments B and C. 5 kissing gates with stock gates to replace existing narrow pedestrian gates allowing access for stock.

Water supply: a drinking bay or pasture pump to be installed to provide water from the reservoir at the south end of the site.

Scrub and invasive species programme: A holly, bracken and rhododendron management programme should be drawn up with a target hectarage cut and treated per year to reduce the cover. Once the density has been decreased the livestock management will help to reduce further encroachment.

Coed Garth Gell



Digimap®

Ordnance Survey

Scale 1:6000



Jul 22, 2015 10:18

Lara Eyke
Harper Adams University

● Access point

Guide prices for capital works, livestock and equipment for RSPB and WT Meirionnydd sites

Site: Coed Garth Gell	Cost (excl. VAT)	Unit	Qty		TOTAL
Capital works					
Fence line clearance (metres)	£ 4.00	metre	317	£1,268.00	
Fencing - stock fence 2 strand high tensile (metres) (including 332m NW side)	£ 9.50	metre	1180	£11,210.00	
Fencing - stock fence 2 strand high tensile (metres) (excluding 332m NW side)	£ 9.50	metre	848	£8,056.00	
Jump fence (metres) (including 332m NW side)	£ 7.50	metre	3584	£26,880.00	
Jump fence (metres) (excluding 332m NW side)	£ 7.50	metre	3252	£24,390.00	
Dry stone walling (including 166m NW side)	£ 75.00	metre	354	£26,550.00	
Dry stone walling (excluding 166m NW side)	£ 75.00	metre	188	£14,100.00	
Splay fence for stock fencing	£ 9.50	metre	20	£190.00	
Access gate 12ft	£ 420.00	each	2	£840.00	
Kissing gate metal with stock access gate	£ 700.00	each	5	£3,500.00	
Scrub clearance	£ 1,200.00	Ha		Pro rata depending on %cover	
Create turning area Coed Garth Gell Fiddler's elbow track	£ 4,000.00	1	1	£4,000.00	
Pasture pumps (not for use in frosty conditions)	£ 350.00	each	1	£350.00	
Handling pen static cattle	£ 8,000.00	each	1	£8,000.00	
Vegetation Works					
Bracken spraying (hand): labour 6 man days/ ha + chemical £200/ha	£ 194.00	day		Pro rata depending on %cover	
Rhododendron (scattered) stem inject	Pro rata depending on %cover	day		Pro rata	
Rhododendron (impenetrable) stem inject £180/man/day + chemical £60/day (3 man team)	£ 600.00	day		Pro rata	
Rhododendron cut, stack & retreat (following year): labour £160/day + chemical £60/day (3 man team)	£ 540.00	day		Pro rata	
Holly cut and stem inject 3 people, 2 weeks, 30 man days @£540/day	£ 540.00	day		Pro rata	
On-going Costs					
Signage	£ 1,000.00	site	1	£1,000.00	
On-going signage/ year	£ 100.00	site	1	£100.00	
Site project total (excl. VAT)				£130,434.00	£130,434
Project total for infrastructure and stock leasing	£130,434.00	(total will depend on choices made for fencing and scrub clearance)			

Prices may have to be inflated by 20% in difficult locations

Site 4: Coed Lletywalter

Part 1: Site description

Grid Reference: SH599276,

38.32 Ha

Coed Lletywalter is for the most part a typical upland oakwood in character with scarce understorey and ericaceous flora. There is some lower plant interest, including *Lobaria* lichen present on twenty trees near the old farm buildings.

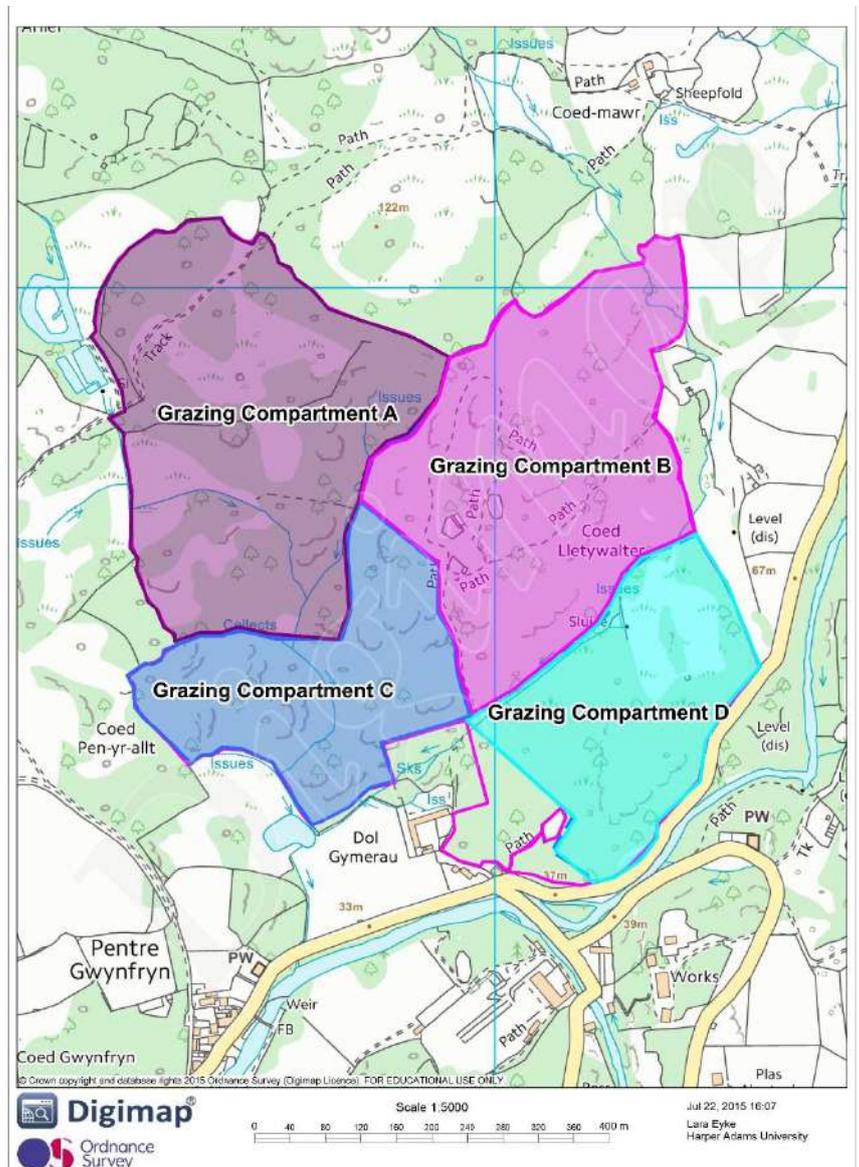
Most of the woodland is sessile, even-aged oak, birch and some sycamore. Many of the beech trees were ring barked between 2000 and 2006 and are now standing deadwood with a dense bramble and holly understorey. There are very few old trees of any sort, indicating substantial selected felling, perhaps during World War II.

The terrain is extremely varied with cliffs, rocky knolls, streams, small glades and boulder strewn slopes. Amongst the plentiful boulders and rock outcrops mosses and liverworts form a thick carpet. Bilberry heath has developed in places with bracken in more open parts of the wood. A small lake supports a range of wetland plants.

The wood is ungrazed and tree regeneration is more than adequate. There is a good breeding population of typical oak woodland birds.

Farming operations

The ruined farm buildings remain as evidence of past farming history but there have been no livestock or agricultural operations for many years. There are livestock to the south and east of the wood (sheep and ponies) and a chicken pen, owned by a neighbour within the wood near the south east boundary.



Historical and archaeological interest

There are a number of historic features throughout the woodland including hill enclosures, hut circles, the old farmstead and a 19th century boating lake which should be protected.

Landscape and cultural value

The woodland is a prominent component of the local landscape, local people are interested in the history and management of the wood. Drystone walls form part of the external and internal boundaries where there used to be grazed pasture.

Designation

Site of Special Scientific Interest and a Bat Sites Special Area of Conservation. Situated in the Snowdonia National Park.

Flora

Mosses and liverworts carpet areas of the wood covering boulders and rock outcrops with a range of flowering plants including wood false brome, dog's mercury and St John's wort in more fertile areas. Bilberry heath has developed in places with bracken in more open parts of the wood. Species such as golden saxifrage and panicked sedge are found in the wetter areas.

A small lake has a range of wetland plants with stands of bottle sedge, common club rush and marsh cinquefoil. Rhododendron is present at a low level, particularly by the watercourses.

Figure 1: Holly understorey and saplings at Lletywalter

Grazing sensitive species –Bluebells, Bilberry and bramble are all present, and will be affected by grazing.

Fauna

Typical woodland bird communities are represented in Lletywalter, there are potential bat roost sites in cavities in live trees and the standing deadwood and foraging opportunities for bats (lesser horseshoe bats are recorded locally). The lake supports a good invertebrate interest. Otters visit the site from the nearby river Artro.

Grazing influences

Approximately half of the area was pasture and was maintained by grazing until the late 20th Century, then by cutting. These areas are now in natural succession. There has been some feral goat browsing in the past but none currently.

The lack of grazing has resulted in high levels of holly regeneration, bramble invasion where there are canopy gaps, some rhododendron and birch growth.

Current land use and management

The wood is managed by the Woodland Trust, public access routes are maintained and there is an ongoing control programme of invasives and regeneration of unwanted species (conifers, beech, willow and rhododendron).

Domestic stock management

None at present.

Wild herbivore management

There is a goat control programme in operation in other woodlands in the area.

Nature conservation

Coed Lletywalter is a SSSI so Section 28 consent would be needed before grazing and capital works to facilitate it could commence

Part 2: Objectives and management recommendations

Key features/Objectives

Objectives	Woodland
Habitat structure	A good mix of tree ages, increased variation in tree height and age from what there is currently. Understory of hazel should continue to be an important feature. Most areas will have a closed canopy but there will be gaps present with a more open structure underneath. Good ground layer of heather and bilberry
Desired future condition	Oak dominated woodland with birch, occasional ash, alder, hazel, some willow understory in places and a varied age structure. Holly levels are much reduced and dense levels of sapling regeneration are reduced. There are more open areas so that increased light benefits lichen, bryophytes and nesting birds. Bramble is reduced and focussed in discrete areas along edges of rides and woodland. The varied terrain and soils will provide variety within the species composition and ground flora. Invasive species will be rare or absent.
Target value and limits of change for attributes	% shrub cover, % of holly and % of canopy cover/ light levels, development and presence of lichen on trunks

Current condition

Table 5: The current condition and suitability of grazing at Lletywalter

Habitat	Current condition	Suitability of current grazing
Woodland	Areas of canopy gaps have a dense understorey of holly and bramble which are restricting air flow and creating shade	Inadequate – grazing levels too low
	There is good natural regeneration, the trend is towards a uniform oak canopy with a holly understorey	Inadequate – grazing levels too low
Lake and wet area	Willow is regenerating and encroaching in the lake. Alder and willow are growing in the wet flush in the south western corner of the wood	Inadequate – grazing levels too low

Key management features

This section provides the detail of the factors which determine how the grazing management of the site should be done. Once these have been identified the grazing plan can be drawn up.

Table 6 Factors affecting the management of key features at Lletywalter

Factor	Comment	Positive or negative Need for action
Tenure:	Owned by the Woodland Trust	
Grazing Rights:	None	
Grazing animals:	None	
Grazing resource:	Contact has been made with a local farmer who has suitable stock and is farming with his son so may be interested in grazing the wood The neighbour to the north east has ponies grazing adjacent to the site so there could be a chance to allow them to access the site.	Positive Discuss possibilities with the neighbours
Herbivore foraging patterns	Livestock would be expected to range through the four proposed compartments in turn so that they can be located more easily.	
Physical features:	The wood is extremely varied with cliffs, rocky knolls, streams, small glades and boulder strewn slopes. There are some steep slopes and potential pinch points on the eastern path	Ensure escape lines through the wood away from the path. Work out fence locations to minimise conflict
Geology/ historical/ topography	The soil is mainly acidic with some richer flushes. Any fencing should be sited along the most appropriate line for ease of	

Factor	Comment	Positive or negative Need for action
	movement around the site.	
Recreation- signage/ dogs/stock	There are three entrances open to the public: A kissing Gate and a Small Pedestrian Gate where the public footpath crosses the north western corner of the woodland, and a pair of double gates at the main entrance, where one can be opened. The circular permissive footpath network leading from the main entrance contains a number of steep sections (with cleft chestnut steps) and there are surfaced sections through the wetter areas of the woodland. The Public Footpath route is an old farm track and is well surfaced and broad. Other rights of way skirt the woodland boundary and are walked mainly by local people	Manage pinch points to avoid conflict between path users and livestock. Ensure adequate liaison with the community and signage advising the whereabouts of the animals
Biological features	SSSI/SPA feature: assemblage of key woodland bird species SSSI/SAC features: Bryophyte, lichen and fern assemblages SSSI/SPA feature: Lesser Horseshoe bat Rhododendron is present and has the potential to spread	Control and remove Rhododendron to avoid poisoning stock. Graze in the summer/autumn when there is sufficient other browse available until it is cleared
Knowledge of key features	There is sufficient knowledge of the key features and what is considered to be favourable condition	Positive
Conflicting objectives	Maintaining the bilberry and bluebells field layer when grazing is in place Maintaining adequate regeneration of desirable tree species	At low stocking levels this can be monitored and grazing adjusted accordingly
Practical livestock management 1. Where to source livestock to provide the desired grazing pattern	There are ponies grazing on land adjacent to the site to the east so there could be a possibility of creating an access through to the woodland for them if an agreement could be made with the owner. There is also a local farmer who may be interested in grazing the wood if a suitable arrangement is proposed in the future, he has sheep and cattle. The suggested Meirionnydd Grazing Scheme may be able to supply ponies initially to start the grazing off.	Open discussions with the neighbour. Devise a grazing scheme and arrangements to incentivise grazing
2. Access to water	There is natural water in all the suggested compartments	
3. Access to site	There is access to the south of the site and potential for access from the north west and north east, subject to agreements with the neighbours. Accessibility within the site is difficult at present due to the rocky terrain and thick bramble and regen.	Discuss access with neighbours. Clear access routes within the woodland to enable stock recovery and checking
4. Handling facilities	Handling pen needed. A basic pen could be installed at the main vehicle access and a mobile system available for use if needed elsewhere	Install handling pen and use mobile pen from grazing scheme

Factor	Comment	Positive or negative Need for action
5. Availability of alternative grazing if needed	If the neighbour is the grazier stock could be taken back to his holding. Ponies from the Grazing Scheme could move to other sites in the scheme.	Use of RSPB grazing hub to be investigated at Vyrnwy
6. Supplementary feeding requirements	Mineral blocks may be used to target grazing If stock are grazed in the winter after initial introduction then hay feeding areas where more trampling is required could be agreed	Provide blocks and agree areas to target
7. Quality of grazing available	There is a good variety and plentiful browse available throughout the site. The grass layer is patchy so availability of forage may decrease quite quickly. Presence of rhododendron poses a hazard to livestock	Control rhododendron
8. Fencing and boundaries	A large proportion of the site boundary needs to be stock proofed either with stock netting or gapping of walls and jump fences. Internal boundaries also need to be installed to compartmentalise the wood	Prioritise lobaria section and schedule remainder of the work throughout the project
Biological processes	Some rhododendron. Impenetrable thickets of holly and bramble	Management of rhododendron for stock safety. Manage holly through stem injection and cutting and introduce grazing. Clear access paths for livestock
Availability of resources funding and skilled labour	Funding required for infrastructure and vegetation management, monitoring and pony grazing scheme. Possible payments to sheep or cattle grazier.	See costs table for funding required
Obligations, designations and policies	Section 28 consent required for capital projects.	Obtain S.28 consent for capital works
Community objectives	Engagement with the community would facilitate management of the wood, the Woodland Trust is in contact with a local group	Positive
Socio Economic concerns	Opportunities for training, potential for farming enterprise in the future as the scheme develops.	Positive

Recommendations for Lletywalter

Suggested grazing pattern

Habitat	Ideal grazing pattern
Woodland	<p>Initially graze with ponies to establish the principle of grazing in the woodland and break up the dense undergrowth. Later, after one or two years, cattle and/or sheep could be introduced if the grazier is interested.</p> <p>To have the most effect on holly and bramble a late autumn into early winter pulse of grazing would be advised (as long as rhododendron has been removed) but if the ground conditions are too wet this could cause poaching and hay or block feeding may be necessary to maintain condition of the stock so summer grazing may be more appropriate.</p> <p>As the ground flora changes through reduction of bramble and scrub the stock could be kept in the woodland at low levels during the winter, with a break for flowering and nesting in the spring. The mire area should be grazed during drier periods.</p>

This suggested grazing pattern would start to establish presence of grazing in the woodland. The site will need to be divided into four compartments to make stock checking and management easier, the topography is so varied that it could be very hard to find the animals if they are ranging through the whole site. The seasonality will depend on whether the site would be prone to poaching and when the rhododendron is cleared. The wetter areas could be grazed earlier in the season with stock moving on the drier compartments as the year progresses.

Low numbers of stock will have to be introduced into selected areas initially to allow for infrastructure to be installed and invasive species to be controlled.

Ponies will begin to browse and trample and open up the vegetation structure. The area could be well suited to cattle at a later date if they were quiet and agile. (Dexters or Belted Galloways are sure footed and good at handling scrub). Once the bramble is reduced sheep could be used where there are archaeological features in addition to or instead of ponies or cattle.

Monitoring of the effects of grazing will inform the movement of stock between compartments.

	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
Compartments A,B and C Woodland Approx 31 Ha	Once rhododendron is cleared low level winter grazing would be effective@50% of summer levels		No stock				Late summer to autumn grazing initially. 10 to 12 ponies. Once grazing is established cattle would be better as less selective. 10 cows or stores plus up to 70 sheep once bramble is clear. Stock to rotate around compartments			Once rhododendron is cleared low level winter grazing would be effective@50% of summer levels		
Compartment D Woodland and mire Approx 7 Ha	No stock					5 to 6 ponies or cows			No stock			
Conditions required	Open and diverse structure within most of the woodland with reduced holly, beech and bramble allowing light penetration and increased ground flora. The mire should be free from invading scrub with a defined area of willow. Heather and bilberry form a shrub layer on the acid soil with a diversity of flowering plants in base rich areas. Around the farm buildings the lungwort bearing trees should be kept clear of vegetation and undamaged by livestock. Birds and lower plants will benefit from clear, open glades by paths and rides											
Supplementary feeding	Hay may be spread on bracken areas and feed blocks provided						Mineral blocks may be used to target grazing and encourage stock into denser vegetation			Hay may be spread on bracken areas and feed blocks provided		
These stock numbers are a guideline only, conditions on the ground will vary month to month and year to year so stocking levels will need to be adjusted to achieve the conservation objectives and ensure good animal welfare.												

Infrastructure needed

Before grazing can start the external boundary of the site would need to be completely stockproofed and access for stock created. A boundary survey has been carried out to give an estimate of the work required. Details of the suggested work are given below and the costs and measurements of work identified have been summarised on the following table with per hectare rates for chemical and manual invasive control.

Fencing and Walling: The boundary fencing needs refurbishment or replacement around the entire perimeter of the site, with sheep netting or jump fence. The boundary wall needs gapping for between 10% -30% of the linear meterage, and should have a jump fence to stock proof it.

Internal boundaries will need to be installed to divide the site into compartments, the fencelines shown are indicative only, it will be easier to set the best line for the fences on the ground to suit the topography and soil depth.

Gates: Four new stock access gates need to be installed, to move animals between compartments. There may be a need to add in a gate to the adjoining land to the north east if agreement could be made to graze ponies from there. Where replacement gates are being installed where the footpath passes through the specification allows for lockable stock gates with adjoining kissing gates.

Water supply: There is natural water available in all compartments.

Scrub and invasive species programme: A holly, bracken and rhododendron management programme should be drawn up with a target hectareage cut and treated per year to reduce the cover. Once the density has been decreased the livestock management will help to reduce further encroachment.

Signage: An allowance has been made for signage to inform visitors about the grazing livestock.

Guide prices for capital works, livestock and equipment for RSPB and WT Meirionnydd sites

Site				Coed Lletywalter	TOTAL
	Cost (excl. VAT)	Unit	Qty		
Capital works					
Fence line clearance (metres)	£ 4.00	metre	687	£2,748.00	
Fencing - stock fence 2 strand high tensile (metres)	£ 9.50	metre	3451	£32,784.50	
Jump fence (metres)	£ 7.50	metre	892	£6,690.00	
Dry stone walling	£ 75.00	metre	267	£20,025.00	
Splay fence for stock fencing	£ 9.50	metre			
Access gate 12ft	£ 420.00	each	4	£1,680.00	
Kissing gate metal with stock access gate	£ 700.00	each	2	£1,400.00	
Scrub clearance	£ 1,200.00	Ha		Pro rata depending on %cover	
Handling pen static cattle	£ 8,000.00	each		£8,000.00	
Vegetation Works					
Bracken spraying (hand): labour 6 man days/ha + chemical £200/ha	£ 194.00	day			
Rhododendron (scattered) stem inject	Pro rata depending on %cover	day			
Rhododendron (impenetrable) stem inject £180/man/day + chemical £60/day (3 man team)	£ 600.00	day		Pro rata depending on %cover	
Rhododendron cut, stack & retreat (following year): labour £160/day + chemical £60/day (3 man team)	£ 540.00	day		Pro rata depending on %cover	
Holly cut and stem inject, bramble trimmed and routes cut; 3 people, 2 weeks, 30 man days @£480/day + £60/day chemical	£ 540.00	day	10	£ 5,400.00	
On-going Costs					
Signage	£ 1,000.00	site	1	£ 1,000.00	
Ongoing signage/ year	£ 100.00	site	1	£ 100.00	
Site project total (excl. VAT)				£79,827.50	£79,828
Project total for infrastructure and stock leasing	£ 79,827.50	(total will depend on choices made for fencing and scrub clearance)			

Prices may have to be inflated by 20% in locations where access is difficult.

Summary of all sites costs and grazing plans

Guide prices for capital works, livestock and equipment for RSPB and WT Meirionnydd sites

Site	Cost (excl. VAT)	Unit	Coed Garth Gell	Coed Abergwynant	Coed y Parc	Coed Lletywalter	TOTAL
Capital works							
Fence line clearance (metres)	£ 4.00	metre	£1,268.00	£3,976.00	£2,924.00	£2,748.00	
Fencing - stock fence 2 strand high tensile (metres)	£ 9.50	metre		£9,576.00	£4,655.00	£32,784.50	
Garth Gell Green Option			£8,056.00				
Garth Gell Blue Option			£11,210.00				
Fencing in rock (metres)	£ 15.00	metre		£1,875.00	£7,215.00		
Jump fence (metres)	£ 7.50	metre		£13,012.50		£6,690.00	
Garth Gell Green Option			£26,880.00				
Garth Gell Blue Option			£24,390.00				
Dry stone walling	£ 75.00	metre		£4,950.00	£1,800.00	£20,025.00	
Garth Gell Green Option			£26,550.00				
Garth Gell Blue Option			£14,100.00				
Splay fence for stock pen	£ 9.50	metre	£190.00				
Access gate 12ft	£ 420.00	each	£840.00	£1,260.00	£420.00	£1,680.00	
Kissing gate metal with stock access gate	£ 700.00	each	£3,500.00	£650.00	£700.00	£1,400.00	
Scrub clearance	£ 1,200.00	Ha	Pro rata depending on %cover		Pro rata depending on %cover	Pro rata depending on %cover	
Create turning area Coed garth Gell	£ 4,000.00	1	£4,000.00				
Fiddler's elbow track							
Cattle grid 50 Tonne capacity 12.5 T axle weight	£ 4,700.00	each		£9,400.00			
post and rail fencing to block grid off	£ 13.00	metre		£260.00			
Pasture pumps (not for use in frosty conditions)	£ 350.00	each	£350.00				
Handling pen static pony	£ 2,200.00	each			£2,200.00		

Site	Cost (excl. VAT)	Unit	Coed Garth Gell	Coed Abergwynant	Coed y Parc	Coed Lletywalter	TOTAL
Handling pen static cattle	£ 8,000.00	each	£8,000.00			£8,000.00	
Culvert Installation	£ 1,500.00	each		£1,500.00			
Water trough and 20m piping	£ 500.00	each		£500.00			
Vegetation Works							
Bracken spraying (hand): chemical	£ 200.00	/ha					
Bracken spraying (hand): labour 6 man days/ ha	£ 160.00	day					
Rhododendron (scattered) stem inject	£ 160.00	day					
Rhododendron (impenetrable) stem inject £180/man/day + chemical £60/day (3 man team)	£ 600.00	day		Pro rata	Pro rata	Pro rata	
Rhododendron cut, stack & retreat (following year): labour £160/day + chemical £60/day (3 man team)	£ 540.00	day		Pro rata	Pro rata	Pro rata	
Holly cut and stem inject 3 people @£540/day	£ 540.00	day			£2,700.00	£5,400.00	
On-going Costs							
Signage	£ 50.00	site	£1,000.00	£1,000.00	£1,000.00	£1,000.00	
ongoing signage/ year	£ 100.00	site	£100.00	£100.00	£100.00	£100.00	
Grazing management payments	£ 150.00	week		£7,800.00			
£150/week/52 weeks							
TB testing at £75+£150/ 3 times/year	£ 225.00	visit		£675.00			
Site project total (excl. VAT)			£130,434.00	£48,059.50	£23,714.00	£79,827.50	£282,035
Project total for infrastructure and stock management	£282,035						

Prices may have to be inflated by 20% in locations where access is difficult.

Proposal for a grazing scheme for the Meirionnydd Oakwoods

What is a local grazing scheme?

A local grazing scheme involves building co-operation and working partnerships between conservation organisations, farmers, graziers and landowners, thus creating opportunities for sharing ideas, information, resources and enthusiasm to the project. There can be integration of sites and grazing regimes that can contribute to appropriate habitat management and livestock production, by the provision of financially viable grazing agreements based on realistic assessments of current economic potential of the sites and stock available. In some instances marketing of produce from stock managed for wildlife can add value and enhance farm incomes, making grazing more viable.

Why is grazing necessary on wildlife rich sites?

In Wales almost all areas we value for their nature, form part of cultural landscapes created by humans, often as a side product of agriculture. Grazing livestock and associated activities play a key role in the formation and maintenance of many semi-natural habitats including grassland, heathland, dune, fen and bog, by slowing or altering the formation of scrub and maintaining a mosaic of habitat structure. In woodlands, where there are no native herbivores, a managed grazing programme can help to deliver conditions desired for management of specific features. It is as important to be able to target grazing to specific areas at particular times as to exclude stock after a pulse of grazing. Within many woodland sites there are areas of other habitats that contribute to the overall value of the site and benefit for grazing livestock to maintain them.

Livestock grazing is a less intensive method of managing sites for wildlife gain than using machinery or chemical based treatments, and produces fewer fossil fuel based carbon dioxide emissions, which are a major contributor to global climate change.

Carbon and manpower benefits of habitat management using grazing animals

- Grazing animals can get to areas where machinery cannot reach such as steep gradients or dense areas of woodland.
- They can be selective in what they graze/ browse which benefits biodiversity whereas a strimmer gives a uniform cut.
- Tendering, commissioning work and supervision of contractors is time consuming and must be done every year so is less efficient than an established grazing system.
- Grazing is a more natural and traditional method of vegetation management.
- Reduction in fuel used for vegetation clearance once the animals are on site.
- Livestock have additional effects on the habitat- creating a mosaic of vegetation and structure, trampling etc. to open up ground and create niches.
- Socio-economic benefits from those employed as scheme coordinators and farmers who can produce food and fibre from livestock and benefit from extending their enterprise.
- A grazing scheme benefits visitors to the woodlands where the structure is more open to improve access and the landscape is enhanced by livestock quietly browsing rather than the noise of machinery.
- Correct grazing allows more vegetation growth and carbon sequestration.
- By using grazing animals, management by the use of mechanical methods and the fossil fuel based emissions they cause will be reduced in the long term. By using locally sourced native breeds of stock to graze semi-improved and unimproved pasture, methane emissions will be

minimised as the gut flora of these types of stock is adapted to maximising the nutritional value of rougher herbage.

What are the barriers to grazing sites?

There are a number of significant barriers to delivering sustainable conservation grazing, these include:

- Lack of interest from site owners or graziers – sites unprofitable in commercial farming sense.
- Fragmented and isolated sites.
- Difficult sites – heavily scrubbed, steep (cliffs) or excessively boggy – all threats to grazing animals.
- Poor site infrastructure – fencing, water, handling facilities.
- Piecemeal co-ordination from statutory bodies & NGOs.
- Lack of committed graziers.
- Lack of suitable grazing animals hefted to difficult sites with increased movement of livestock.
- Travel and time for graziers.
- Biosecurity and animal legislation / welfare.
- Public access – dog worrying / lack of public engagement on open access land and coastal footpaths.
- Ticks and associated diseases.

How does a local grazing scheme work?

A grazing scheme can operate on sites owned by one organisation in a defined area or across a suite of sites owned by several organisations and individuals. A coordinated approach is taken to sourcing livestock, which may either be owned by one organisation or grazed by local farmers, and planning a grazing regime that makes efficient use of the stock and delivers biodiversity benefits to the sites.

The barriers outlined above can more easily be overcome when a dedicated person is able to address the issues, fund work on sites to facilitate grazing, work with local communities and farmers and maintain communications between organisations, ecologists, site graziers and users.

The grazing coordinator provides a point of contact for all concerned with the sites and is on hand to deal with all the details of managing the grazing- from liaising with dog walkers to rounding up stray stock, sorting out signage and helping with monitoring.

Need for grazing in the Meirionnydd woodlands

The Meirionnydd Oakwoods under RSPB ownership cover an area of 128.6Ha, in addition there are further woodlands in the area under the ownership of other organisations including the Woodland Trust and The North Wales Wildlife Trust. Many of these sites have been ungrazed for many years and are now becoming overgrown and in need of grazing, (as identified by Alan Orange's lichen survey) to create lighter conditions to maintain and promote the lichen interest.

A local grazing scheme, with a core of livestock under the ownership of the RSPB and additional grazing stock provided by farmers in the area would enable a coordinated system of grazing management to be set up to deliver benefits to the habitats and lichen interest.

How would a scheme work?

A best practice approach has been developed by Pori, Natur a Threftadaeth (PONT) the grazing organisation for Wales, which offers a good model for Local Grazing Schemes. PONT works to share information on grazing solutions so could be a point of contact for advice in establishing this scheme.

Working on a site basis, once the right site infrastructure has been installed the aim is to work with local graziers to maximise the use of locally sourced animals and grazing skills, to support the RSPB and other organisations in securing sustainable management by grazing over the long term.

For ease of management a herd of ponies, which are not subject to movement restrictions and regulations would be owned by the RSPB and managed across areas where farm livestock are less suited. Initially ponies are ideal to establish grazing on a site and can be followed on by cattle over time.

Where possible, arrangements with neighbours with suitable stock can be made and access routes created to allow animals to access the sites. The movement regulations need to be taken into account with TB testing of cattle when moved on and off (unless grazing for less than 60 days from the TB test), records kept and standstill rules adhered to. If appropriate, changes to the holding numbers on the sites could avoid problems with standstill rules.

Equipment, including a vehicle and trailer, mobile handling pens and cattle crush would be provided to enable livestock movements between sites and livestock handling for welfare or TB testing.

A full time grazing coordinator would be employed to manage the RSPB livestock, liaise with graziers and set up grazing agreements, monitor the progress of the stock and the sites condition, arrange training for stock checkers and farmers and run public events and awareness days.

A local produce marketing scheme, facilitated by the coordinator would benefit the local economy and add value to produce from farm animals grazed on the sites- improving the sustainability of the scheme.

Grazing scheme options

Farmer owned or managed livestock

Arrangements can be made for a farmer/grazier to manage livestock on the site through a variety of mechanisms:

- Annual/ seasonal grazing licence: Initially a grazing licence offers an opportunity for all parties in an agreement to try out the grazing arrangement which can then be formalised into a FBT if everyone is happy. The licence can specify the outline grazing plan and the conditions required so that the stock can be managed to deliver the habitat results.
- Farm business tenancy (FBT): This gives a farmer more security when planning their livestock system and makes movements of stock simpler but takes longer to establish.

- Herd or flock leasing: Where a grazier doesn't have suitable stock they can lease animals from an organisation under an agreement to manage them for the benefit of the site. After a 3 year period they may buy the stock or hand an equivalent age structure group of animals back.
- Payments to deliver environmental benefits: To support additional costs of managing stock on difficult sites and cover the extra time and effort taken to monitor the habitat and check the stock many organisations pay graziers. Payment for delivery of the desired condition in the woodlands gives more control over the way the stock are managed.

Stock checking and training

In order to ensure welfare of livestock and engagement with local communities other grazing schemes work with local people who walk in the land under management. Training in stock checking is given through the scheme on a LANTRA registered course in recognising problems on the ground and stock health and welfare and how to report it to the sock owner and site manager. This gives peace of mind to graziers and builds relationships with the community. Two or three local people/site can be trained and can provide invaluable support to the scheme. The cost of the training is approximately £250/person.

Livestock numbers required

The following table shows the number of ponies, cattle and sheep needed to graze the Meirionnydd sites as per the grazing plans drawn up for them in this document. Where a range of numbers was suggested the higher figure has been taken. The table allows decisions to be made on where the priorities lie and where additional stock will be needed.

As stated before there would have to be flexibility in the numbers of stock depending on the effect of their grazing.

The table shows a peak in numbers in July to August of 40 ponies if ponies only are used. If cattle are substituted on some sites the maximum pony number is 10 and maximum cattle is 30.

At the start ponies will be easiest to manage on the Coed y Parc, Garth Gell and Lletywalter sites because they haven't been grazed for many years. The project will have to use the RSPB animals on priority sites and source additional animals from local graziers. Because all stock are off sites in the spring there has to be land available for them elsewhere and too many ponies could not be accommodated on RSPB land.

At Abergwynant the cattle numbers will need to be built up over time, possibly lower numbers of cattle could be grazed with sheep used if necessary. It would be a mistake to encourage the grazier to build the herd up too fast in case he has to remove stock to avoid damage to the site.

Summary of seasonal grazing livestock numbers across Meirionnydd Woodlands proposed grazing scheme sites

Woodland site	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec									
Coed y Parc A	50 sheep					4 ponies					50 sheep										
Coed Garth Gell A and B							12 ponies or cows														
Coed Garth Gell C					6 ponies (or 30 sheep once brambles reduced)																
Coed Lletywalter A, B and C	6 ponies or cows						12 ponies or 10 cows				6 ponies or cows										
Coed Lletywalter A, B and C							70 sheep (once brambles reduced)														
Coed Lletywalter D						6 ponies or cows															
Livestock totals																					
Total Ponies (Or number if cattle are substituted)	6 (none)					6 (6)		12 (10)		28 (10)		40 (4)		34 (10)		28 (4)		24 (none)		6 (none)	
Total Cattle (replacing ponies)	6					6		12		30		22				6					
Total Sheep	50										70		100		50						

The Abergwynant stock are summarised below because that area is likely to be managed separately

Woodland site	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
Abergwynant wood							8 (or 5 plus 20 sheep)					
Ffridd					10							
Grassland/ heath					5 youngstock or 3 cows							
Total					15 or 10 plus 5		18 or 15 cows plus 5 20 sheep			House youngstock 15 cows		

Grazing scheme management and delivery costs

The costs summarised in the following table are the overall costs estimated to set up and manage the Meirionnydd Woodlands Local Grazing Scheme, to include staffing, equipment for the project officer, vehicle and equipment needed for managing the sites. This is in addition to the cost of the infrastructure detailed previously.

Guide prices for local grazing scheme set up costs for RSPB and WT Meirionnydd sites		
	Cost (excl. VAT)	Unit
Capital equipment		
Mobile handling system	£ 13,000.00	£ 1.00
Additional hurdles	£ 2,000.00	8
4 wheel drive vehicle	£ 20,000.00	1
Trailer	£ 6,000.00	1
Mobile bowser with trough	£ 3,300.00	1
Total	£ 44,300.00	
Staff costs		
Staff Salary		
Coordinator (full-time, salary range £22K-£25K)		
Salary and costs of staffing/year (pension, NI, Redundancy)	£ 29,000.00	
Staff Related Costs		
Phone, PPE, Mileage, training	£ 4,000.00	
Assumes staff management costs and office accommodation are provided by RSPB		
Total	£ 33,000.00	
Capital purchases		
Laptop computer	£ 800.00	
Printer	£ 150.00	
Total	£ 950.00	
Support costs (repairs, vet, contingency, emergency works)	£7,500	
Grand total setup and first year of staffing	£ 85,750.00	
Example of additional project costs (depends on final plan)		
Livestock		
Dexter cows for leasing (including transport)	£ 500.00	each
Additional replacement ponies (handled and gelded)	£ 300.00	each
Wiltshire or easy care sheep (less likely to get stuck in brambles)	£ 75.00	each
On-going Costs		
Signage/ Interpretation/site ongoing signage/ year		
Grazing management payments £150-£200/week/number of weeks		
TB testing at £75+£150/ 3 times/year/ site with cattle		
Training courses 2 checkers/site @ £250/course		

Other costs such as payments for grazing have been calculated for Abergwynant and would need to be worked out on an individual site basis once the choice of system for the site has been made. The indicative costs for Abergwynant could be used as a guide.

Livestock purchase costs for leasing schemes, stock checker training, TB testing costs, and signage and interpretation material would also need to be added into the overall budget.

This is a brief outline to give an idea of the principles of establishing a local grazing scheme and to show that, properly funded and managed it would have great benefits for the Meirionnydd Woodlands.