

APPENDIX 8

NVC SURVEY REPORT

PARC PELENNNA, TONNA, NEATH PORT TALBOT

NVC SURVEY OF SELECTED WOODLANDS AND
GRASSLANDS 2024



Produced for Ramboll UK Ltd

QUALITY ASSURANCE

Author	Reviewer	Revision	Date Issued
Rebecca Sheahan-East	Abbey Sanders	V1	17/07/2024
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Revision	Notes
V1.2	Addition and removal of some text
V1.3	Minor corrections to text and survey notes included

CONTENTS

INTRODUCTION	1
METHODOLOGY.....	2
Existing information	2
Site survey – National Vegetation Classification.....	2
Constraints	3
BASELINE CONDITIONS.....	4
Data search	4
Site survey.....	4
EVALUATION AND IMPACTS	7
Woodland areas.....	7
Grassland areas	8
CONCLUSIONS AND RECOMMENDATIONS.....	9
FIGURES	10
REFERENCES.....	14
APPENDIX A. SITE PHOTOS	15
APPENDIX B PARC PELENNIA SURVEY NOTES.....	18

SUMMARY

East Ecology have been commissioned to supply detailed botanical survey information to Ramboll UK Ltd as part of their ecological impact assessment for Trivselhus UK Holdings Ltd, with regard to a premium chalet holiday development at Parc Pelenna near Tonna, Neath Port Talbot.

A number of targeted ecological surveys have been undertaken for this and previous planning applications for the development of the site.

Further information relating to the results of ecological impact assessment, Phase 1, breeding bird, invertebrate, reptile and bat surveys can be found in reports produced by Ramboll UK Ltd and summarised in their ecological impact assessment 2024.

The survey area consisted of the existing track area to the north of the main part of the site and a small area inside of the main site. Areas are highlighted in Figure 4.

The areas of interest were areas identified as ancient woodland, restored ancient woodland and plantation on ancient woodland as part of the ancient woodland inventory. Also of interest was the grassland vegetation developing over the existing track.

Proposals are to widen and improve the existing track to an access road suitable for vehicles where they may pass each other without interruption.

Data collection of the specified areas was somewhat limited by the small size of the stands identified as each woodland type and the narrow strip of the track.

Results were derived from the analysis of the data collected and the woodland and grassland types were identified as closely as possible to an National Vegetation Classification community.

The woodland areas were most similar to NVC communities W10 and W16. Whereas the grasslands varied from wetter areas of MG10 and M23 to drier area of MG6b.

Although the woodlands have been designated as of importance, their non-typical canopy species decreases their biodiversity value to some degree.

The site has a history of felling and disruption and may be able to tolerate further redevelopment of the track to some extent. The development of the access road to the north and further access in the main body of the site through designated areas of ancient woodland are likely to have some minor negative effects. Mitigation for the loss of small areas of woodland will require mitigation in the form of woodland management and restoration of ancient woodland in the main body of the site. Other smaller habitat units which will be affected include site level value grasslands and a very restricted area of rush pasture. The loss of these small areas may be mitigated by sensitive management of grasslands elsewhere within the main body of the site.

INTRODUCTION

Parc Pelenna, near Tonna, Neath port Talbot SA11 4ET lies at an approximate National Grid Reference: SS8009499471. The site has a varied history but contains a mosaic of habitats from plantation woodland through to neutral grasslands and standing water. The site is surrounded by other plantation and mixed woodland some of ancient woodland origin, farmland and watercourses. The relative location of the site is shown in Figure 1.

This report is intended to contribute to the information required to renew planning application for the access road needed for the creation of a chalet holiday site. Structures will be spaced away from each other to provide a sense of privacy and to retain as much of the semi-natural habitats present as possible. The layout of the proposals is shown in Figure 2.

This report was commissioned in 2024 to assess selected woodland habitat areas through which the proposed access road will be upgraded from the rough narrow, track already present. The proposed access road will pass through a designated area of ancient woodland, restored ancient woodland and plantation on ancient woodland. Further identified areas of plantation on ancient woodland within the main body of the site are due to be affected as well as the grasslands of the existing track itself. Detailed botanical information was gathered to assess the importance of the woodlands and grasslands present and to build upon the habitat information collected by Avondale Ecology on behalf of Ramboll UK Ltd and reported in the 'Parc Pelenna Holiday Resort – Ecological Impact Assessment 2024'.

Anecdotal evidence via a local landowner was provided during the survey visit as a background to the vegetation present and its history. The land was mostly cleared of woodland during the development of the small mine and incline at the site with some scattered trees remaining. Other land uses were likely around this including grazing. Following the cessation of industry and poor grazing on the site the woodland areas regenerated naturally. The majority of the canopy cover is less than 60 years old. No plantation on the northern slopes has taken place around the proposed access road, but plantation is apparent within the main body of the site itself with areas of natural regeneration. The mine entrance as well as the buildings present have been taken into consideration during the bat surveys conducted by Avondale Ecology.

The author of this report, Rebecca Sheahan-East of East Ecology has over twenty years post graduate experience in ecological consultancy and nature conservation and holds Natural Resources Wales survey licences for protected species including bats. Rebecca is also a full member of the Chartered Institute of Ecology and Environmental Management and a Chartered Environmentalist.

METHODOLOGY

Existing information

The site has been subject to a series of ecological surveys over the lifespan of the project. Avondale Ecology have produced an updated Phase 1 habitat survey in August and September 2023 on behalf of Ramboll UK Ltd as a baseline from which to investigate the quality of the designated ancient woodland, restored ancient woodland and plantation on ancient woodland plots. The identified ancient woodland area maps were supplied by the local biodiversity information centre with an updated species data search.

Site survey – National Vegetation Classification

The site survey followed recognised techniques used in the National Vegetation Classification system. The woodland section of the National Vegetation Classification (NVC) was published in 1991 (Rodwell 1991).

'The NVC aims to describe all the vegetation of Great Britain. This means that it is possible to analyse, and map, a complex site, composed of several habitat types (e.g. woodland, scrub, heathland and bog) using the same classification system. Successional or treatment related changes in the vegetation, for example between open glades, shaded rides and the vegetation of clear-fells can be more easily described than is possible using other classifications.

The NVC breaks down each broad vegetation type (e.g. woodland, calcareous grassland, mires) into communities, designated by a number and name (e.g. W8 *Fraxinus excelsior* – *Acer campestre* – *Mercurialis perennis* woodland, CG1 *Festuca ovina* – *Carlina vulgaris* grassland, M10 *Carex dioica* – *Pinguicula vulgaris* mire). Many (but not all) of these communities contain several sub-communities, designated by a letter (e.g. W8a *Fraxinus excelsior* – *Acer campestre* – *Mercurialis perennis* woodland *Primula vulgaris* – *Glechoma hederacea* sub-community). Sub-communities may be further divided into variants (e.g. M10bi and ii) but this has not been adopted within the woodland section of the classification.

Samples are assigned a best fit against the recognised NVC classifications by the constancy of key identifying species through a series of similar plots and their abundance.

There are 18 main woodland types and seven scrubs or underscrubs, most of which are divided further to give a total of 73 sub-communities. Factors other than plant composition are also important in nature conservation terms. Two woods may be of the same vegetation type, but if one is regularly coppiced and the other is high forest the bird and invertebrate life will be very different. Ancient examples of a type are likely to contain more of the species typical of ancient woodlands (e.g. *oxlip* *Primula elatior*, herb-Paris *Paris quadrifolia*) than recent examples of the same type. The NVC should not therefore be seen as the only way of describing woodland, but rather as one element in such descriptions'

No stand will be a perfect fit and some community constants may be absent from samples collected and variation due to past management may have a profound effect on the species composition.

The surveyor sampled woodland canopy areas in 50m x 50m sample plots while the ground flora was sampled in 2m x 2m plots. A total of six woodland plots were sampled over the proposed access road area and three within the main body of the site.

Grassland and marshy grassland areas were sampled in 2m x 2m plots. A total of six grassland or low growing vegetation plots were sampled.

Rebecca Sheahan-East of East Ecology, a surveyor experienced in NVC survey carried out a site visits on 11th, 12th and 14th June 2024. The weather on the days of the survey was variable and ranged from sun through to showers.

Any species not immediately identified were examined with the use of a hand lens and several wildflower keys.

The plot analysis software MAVIS was employed to identify the closest NVC communities with the aid of the floristic tables and the field guide to woodlands and grasslands and montane communities.

Constraints

The main constraint to the survey was access to the designated woodland areas. Several of these woodlands were very densely covered by a field layer of tall bracken and bramble, not assisted by the late date in the season for woodland surveys. The commission of the work missed the peak woodland survey window of late March to May and some ground flora species may have been missed due the dense cover or died back.

Secondly the terrain was also very steep in most areas of the proposed access road and access into the woodland from the existing track was difficult with a tall bank or cliff to one side. Survey quadrats were taken from just off the track rather than in the centre of each woodland block. However the plot selected were thought to be representative and displayed adequate characteristics for identification.

The areas of the designated woodland were small, and samples were limited to two per woodland area type.

BASELINE CONDITIONS

Data search

Habitats

The identified Phase 1 habitats at Parc Pelenna consist of the following:

- Scattered trees
- Inland cliff
- Fence
- Earth bank
- Semi-natural broadleaved woodland
- Coniferous woodland plantation
- Semi-natural mixed woodland
- Dense continuous scrub
- Scattered scrub
- Semi-improved neutral grassland
- Improved grassland
- Marshy grassland
- Poor semi-improved grassland
- Standing water
- Amenity grassland
- Introduced shrub
- Buildings

The ancient semi-natural woodland, plantation on ancient woodland and restored ancient woodland areas were identified via the data search as classified by Natural Resources Wales and illustrated in Figure 3.

Site survey

Communities

The study area consisted of the proposed road and new site entrance to the north of the main plot, the designated ancient woodlands on either side of the track and two areas of mixed woodland within the main site. The areas of each woodland community type are mapped in Figure 4.

W10a *Quercus robur* – *Pteridium aqualinum*- *Rubus fruticosus* woodland

Mixed with the less mature willow *Salix caprea* dominated scrub were several mature tree specimens. These consisted of silver birch *Betula pendula* oak *Quercus robur*, alder *Alnus glutinosa* and beech *Fagus sylvatica*. The defining floristic characteristic were, bluebell *Hyacinthoides non-scripta* with very commonly occurring bramble *Rubus fruticosus* agg. and bracken *Pteridium aqualinum* other indicative species were broad buckler fern *Dryopteris*

diliata and grasses tufted hair grass *Deschampsia cespitosa* and creeping soft grass *Holcus mollis*.

This community applied to the identified ancient semi-natural woodland area as well as the plantation on ancient woodland at the far north of the site on lower ground. Management of some form was apparent in plot 2 where some felling had taken place. The ground flora was more diverse in this area. Other areas higher up the hill were unmanaged with a tall ground flora of dense bracken.

W16 *Quercus* spp – *Betula* spp – *Deschampsia flexuosa* woodland

The canopy of these areas also contained oak and silver birch with a proportion of goat willow in the canopy. The ground flora layer also contained bramble and bracken, but much less abundantly. Bryophytes were a significant feature of these areas with bluebell present but sparsely so. Other features were present which identified it from the other woodland areas such as wavy hair grass *Deschampsia flexuosa* and bilberry *vaccinium myrtillus*.

There was no evidence of habitat management in these areas and were quite extensive on the upper slopes of the site.

MG10 *Holcus lanatus*-*Juncus effusus* rush-pasture

An area of habitat marked as marshy grassland on the Phase 1 plan to the far northern end of the proposed access near its join to the tarmacked road can be classified as MG10 due to its high abundance and constant presence of soft rush *Juncus effusus* and yorkshire fog *Holcus lanatus*. Other identifying floristic features were the presence of creeping buttercup *Ranunculus repens* and lesser spearwort *R flammula* with broad leaved dock *Rumex obtusifolius* and creeping bent *Agrostis stolonifera*. The tall rush dominated area of the field was included as part of the horse grazing but is likely to be less palatable and rarely grazed or not grazed.

MG6b *Lolium perenne* – *Cynosurus cristatus* grassland *Anthoxanthum odoratum* sub community

The remainder of the fields to the north of the site through which the proposed access road will run are likely to fall into the MG6b category or possibly MG5. This excludes the far northwest corner of the field identified above as MG10. The defining floristic characteristic identifying this habitat most closely with MG6b was the presence of crested dog's tail *Cynosurus cristatus* occurring abundantly and constantly with sweet vernal grass *Anthoxanthum odoratum* and yorkshire fog. With a high percentage cover of herbs including bird's foot trefoil *Lotus corniculatus*, ribwort plantain *Plantago lanceolata*, white clover *Trifolium repens* and red clover *T pratense* with common cat's ear *Hypochaeris radicata*. This area was horse grazed, presumably all year round without a hay cut and was free from waterlogged soils at the sample plots. The more species rich areas of this field compartment fell into the area of the proposed access road, but other areas of the field were of lesser biodiversity interest.

M23 *Juncus effusus/acutiflorus* – *Galium palustre* rush pasture

A small area of the track had been previously mapped in the Phase 1 survey as marshy grassland and consisted of a distinct vegetation type of impeded drainage at the turn in the track to the northwest. The vegetation most closely matched the M23 community for its constants of soft rush, yorkshire fog, presence of greater bird's foot trefoil *Lotus pedunculatis* and marsh bedstraw *Galium palustre*. Water mint *Mentha aquatica* was present in the wettest areas but did not appear in the 2 x 2m quadrats. Other elements were an influence of the close proximity of the woodland through which the track passes. The habitat area was confined to the footprint of the track.

Remainder of existing track

Other areas of the track not surveyed to NVC level on this occasion fell into the bare ground and scattered scrub or poor semi-improved grassland categories of the Phase 1 description already mapped and did not warrant further investigation. Figure 4 shows the Phase 1 category areas which have been identified and mapped previously around the areas of habitat identified to NVC community.

EVALUATION AND IMPACTS

Woodland areas

All woodland area plots surveyed broadly fell into either the classification W10 or W16. Both are considered to be priority habitats in the UK and have been identified as part of the ancient woodland inventory. The UK biodiversity action plan, priority habitat descriptions for lowland mixed deciduous woodland (Madoc 2008) is included below.

'In terms of the National Vegetation Classification the bulk of this type falls into W8 (mainly sub-communities a - c in ancient or recent woods; in the lowlands W8d mostly occurs in secondary woodland) and W10 (sub-communities a to d) with lesser amounts of W16 (mainly W16a). Locally, it may form a mosaic with other types, including patches of beech woodland, small wet areas, and types more commonly found in western Britain. Rides and edges may grade into grassland and scrub types'

The Guidelines for the Selection of Wildlife Sites in South Wales (South Wales Wildlife Sites Partnership 2004) also states that all woodlands identified via the ancient woodland inventory are of value even if the canopy species have been removed so long as the characteristic ground flora remains. The following woodlands should be considered for selection:

- 'All ancient woodlands as recorded in the Ancient Woodland Inventories, apart from those felled and replanted with non-native species which have also entirely lost their ancient features such as characteristic ground flora'
- 'semi-natural woodlands, of whatever size, which support an assemblage of ancient woodland, indicator species'

The woodland areas surveyed at Parc Pelenna canopy species were not considered to be typical of the woodland categories described due to the disturbed nature of the site's past and relatively recent planting of tree crop species, however according to the guidelines the designated areas still qualify as Wildlife Site quality and are therefore of at least local level importance.

Negative impacts will occur to the areas of designated ancient, restored and plantation on ancient woodland as a result of the proposed development, these are likely to be very localised around the area where the proposed access road will require widening from its existing form. A few semi-mature trees will require removal to accommodate the additional width required and the precise number will be confirmed at the detailed design stage. Mitigation of impacts would be provided in line with the Natural Resources Wales advice 'How to avoid and mitigate effects from development on ancient woodland' (Natural Resources Wales 2021). This is likely to include positive woodland management actions elsewhere within the main body of the site, such as tree crop species replacement with native species via the proposed habitat management plan and habitat enhancements are likely to outweigh the negative impacts.

Grassland areas

The areas of MG6b lowland neutral grassland did not fall into the priority habitat category but the M23 purple moor grass and rush pasture did, according to cross referencing from the UK Habitat Classification and equivalent quoted NVC communities (Butcher *et al* 2020).

The MG6b grassland may qualify as of Wildlife Site quality according to the Guidelines for the Selection of Wildlife Sites in South Wales if species rich. But the size of the area concerned may exclude it from this classification.

- 'All relatively species-rich (as defined below) examples of other neutral grasslands (which could include MG1, MG6 & MG10) of any significant extent.'

The area through which the proposed access passes was found to be more species rich than other parts of the same field compartment. Partial loss of the MG6b grassland would occur to accommodate the access road since the track does not exist at this point. However, the scale of the area to be lost is minimal. Alternative areas may be enhanced to expand this habitat type elsewhere within the main body of the site and this minor loss would be mitigated by the proposed habitat management plan.

The small area of M23 will be lost entirely to the access road. The scale of the habitat lost is small (less than 30m²) making it a very minor impact, but the habitat is very likely to occur elsewhere within the main body of the site and may be recreated elsewhere on a lower value habitat area of impeded drainage. Enhancements via the proposed habitat management plan are likely to outweigh the small losses identified.

CONCLUSIONS AND RECOMMENDATIONS

The designated areas of woodland identified as ancient woodland, plantation on ancient woodland and restored ancient woodland were all found to be of moderate value and fall into the priority habitats category and were of Wildlife Site quality for their ground flora characteristics. However, the canopy composition was variable and contained a high degree of fast-growing pioneer species in the proposed northern access road area. The plantation on ancient woodland within the main body of the site was difficult to access for survey but the adjacent areas were planted frequently with Western hemlock and lodgepole pine but retained a characteristic ground flora which aided in its identification approximately to an NVC community.

In order to widen and formalise the access track from the existing, a degree of tree felling will be required and changing of levels and drainage. This is anticipated to have a small, localised negative, permanent impact on the habitats present collectively, but since most of the track already is in existence the disturbance will be minimal in terms of area affected. The non-typical canopy composition detracts from the ecological value of the habitats present and therefore the impacts upon them are likely to be of lesser significance.

The grasslands at the far end of the proposed access were found to be of either site level value or had the potential to be of local level value (Wildlife Site) if considered large enough. The small area of rush pasture on the track was thought to fall in the priority habitats category but was very limited in size. Impacts to these areas are considered to be minor and can be mitigated elsewhere within the site boundary.

A comprehensive habitat management plan will be developed to compensate for habitat losses to the development over the whole site not just the access road and will provide adequate mitigation and enhancements which will demonstrate an overall net gain for biodiversity. Woodland restoration may include reinstatement of appropriate woodland management of undermanaged areas.

FIGURES

Figure 1. Location of Parc Pelenna. Contains Ordnance Survey data © Crown copyright and database right 2013



Figure 2 Proposed chalet development master plan Adapted from Ramboll Figure 5 Figure A5: Phase 1 Habitat Survey
with Landscape Masterplan Overlay

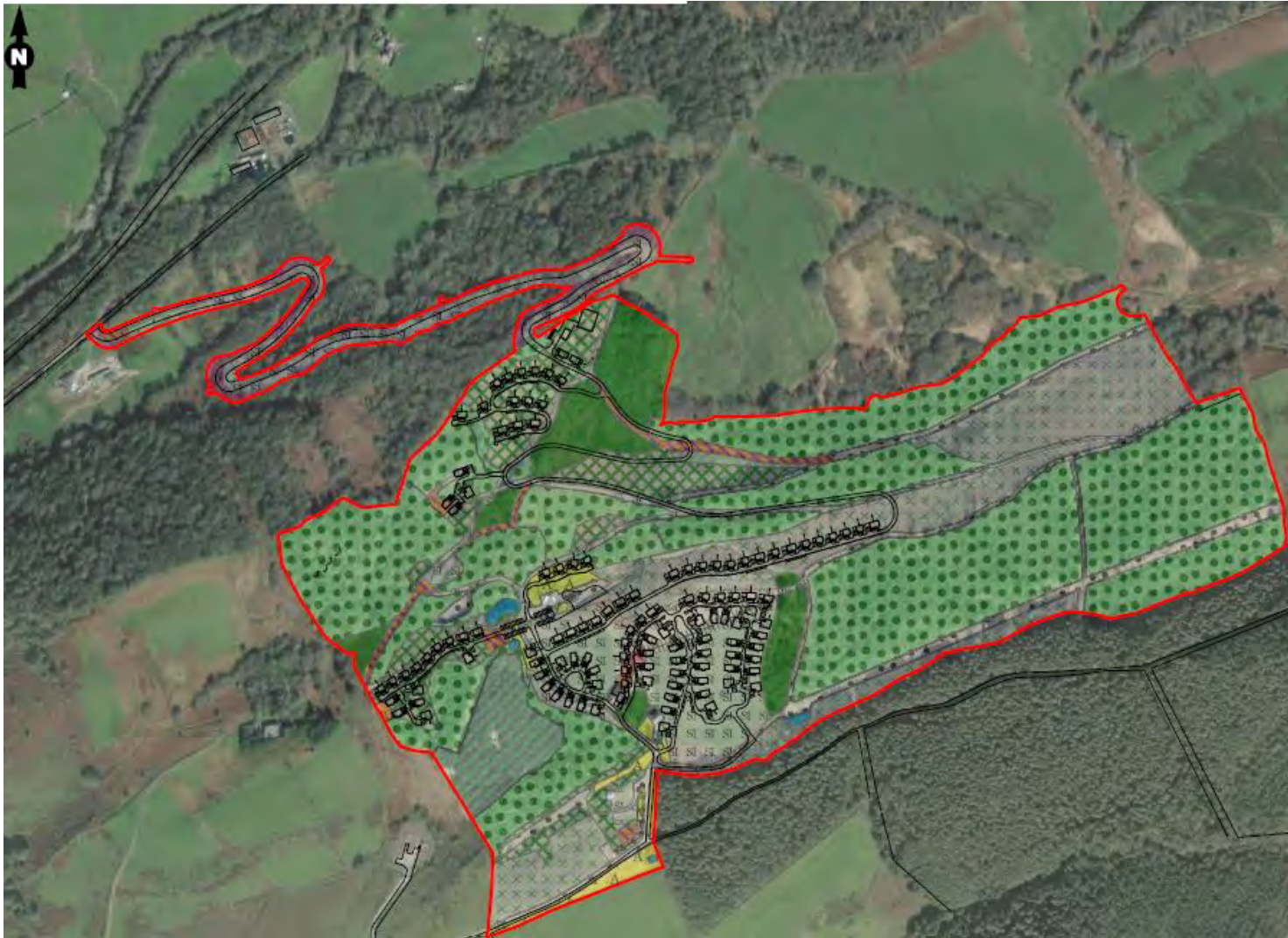


Figure 3 Designated woodland areas and Phase 1 habitats Adapted from Ramboll Figure A.4 Ancient Woodland Designations

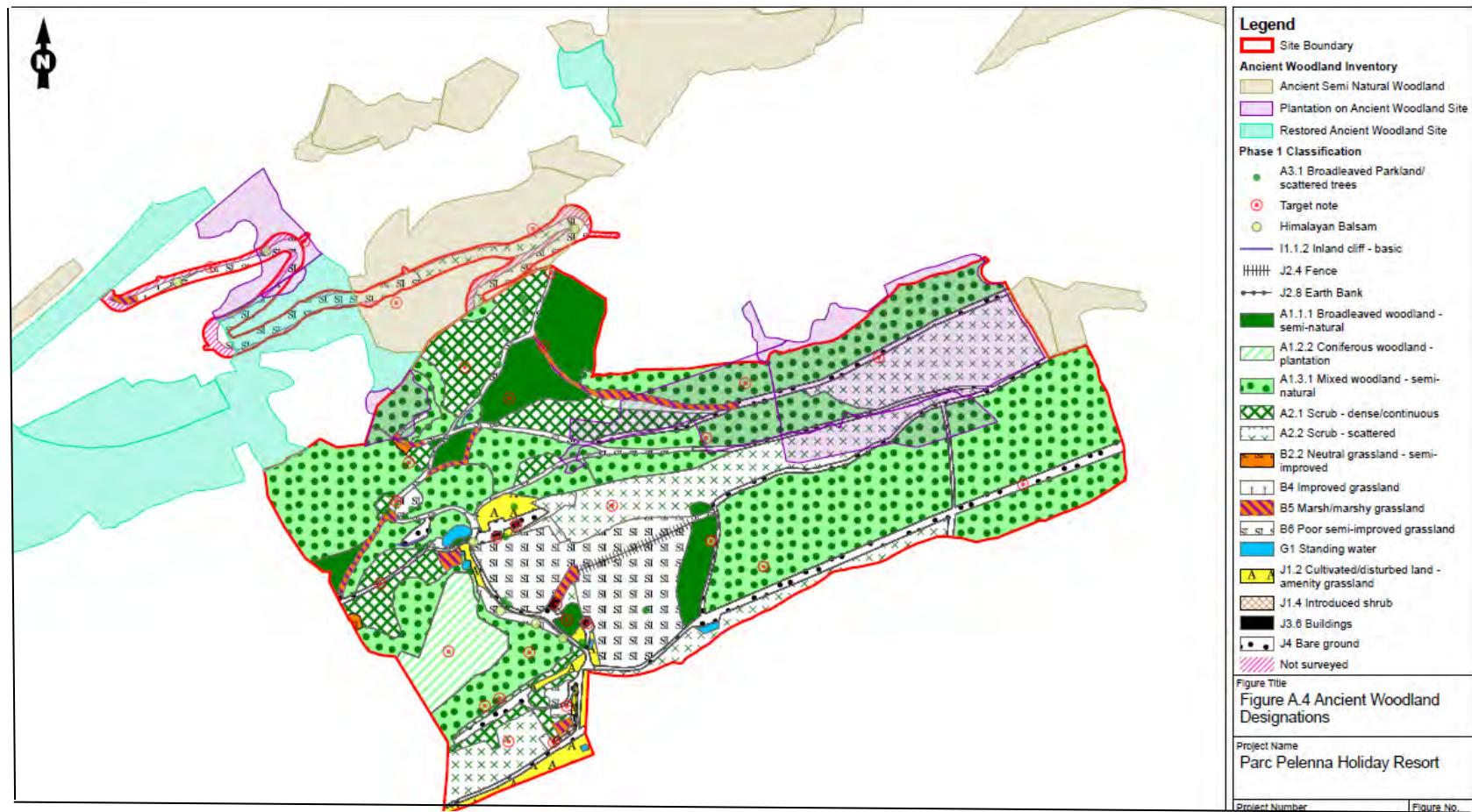
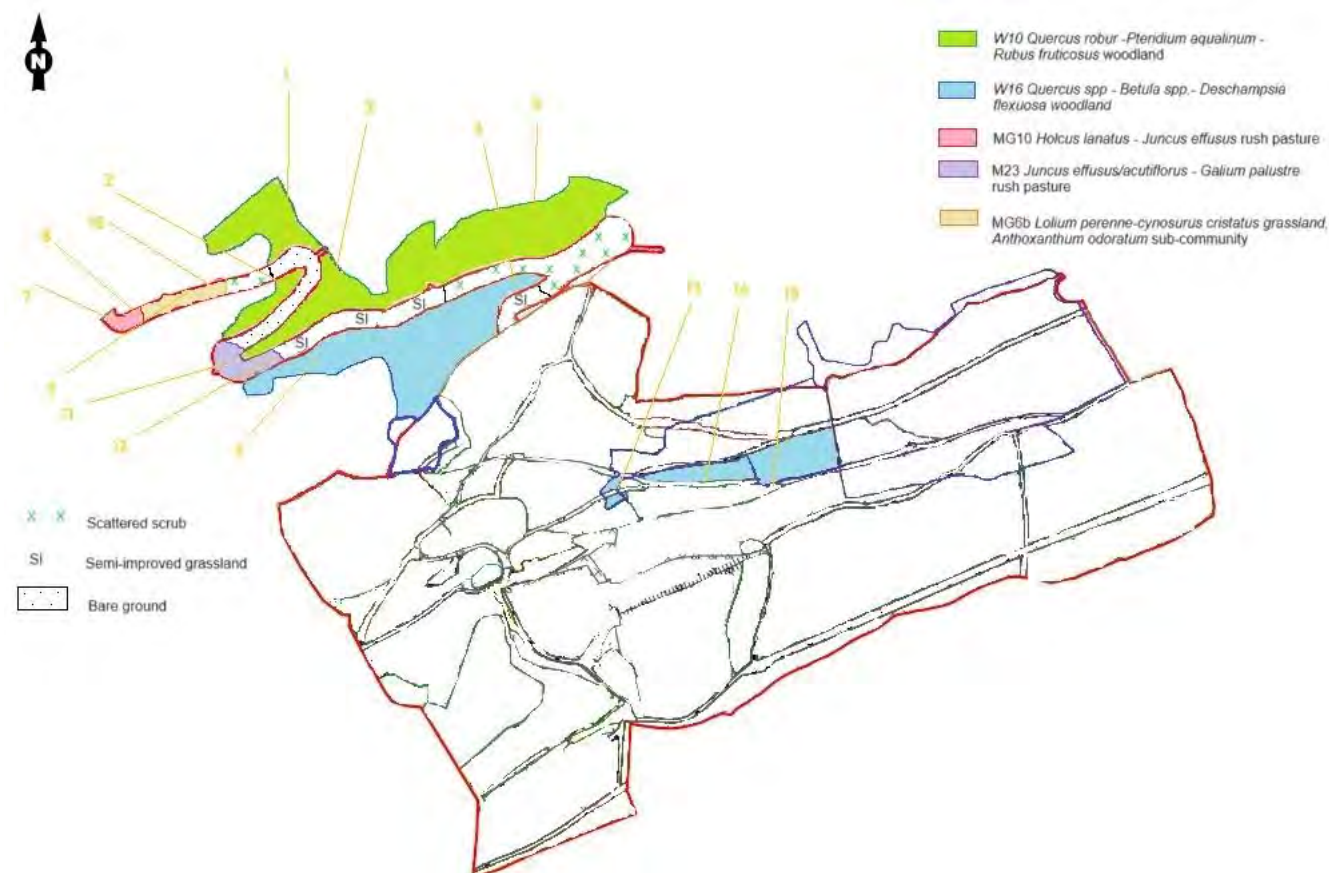


Figure 4 NVC communities surveyed, sample locations and previously identified Phase 1 habitats



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APPENDIX A. SITE PHOTOS

 A photograph showing a dense woodland area. The foreground is filled with lush green undergrowth, including various leafy plants and ferns. In the background, tall, slender trees with green foliage form a dense canopy.	Photo 1. W10a woodland (plantation on ancient woodland)
 A close-up photograph of the ground flora in a woodland. The ground is covered with a mix of green plants, including small leafy species and ferns, interspersed with dry, brown leaves and twigs.	Photo 2. Ground flora of W10a woodland
 A photograph of a woodland site with a dense, lush green undergrowth. The foreground is dominated by large, vibrant green ferns. In the background, tall trees with green foliage are visible, creating a dense canopy.	Photo 3. W16 woodland (Restored ancient woodland site)



Photo 4. Ground flora of W16 woodland



Photo 5. W16 woodland (Plantation on ancient woodland).



Photo MG10 grassland



Photo 7 MG6b grassland



Photo 8. M23 rush
pasture

APPENDIX B PARC PELENNIA SURVEY NOTES

Plantation on ancient woodland area Q1 & Q2. 11th June 2024

Alder and birch dominated canopy at the base of the steeply sloping ground near to paddocks, grasslands and scrub. The canopy trees were quite even aged and semi-mature, but no evidence of plantation at this area. No rows of trees or crop species were present and the canopy height 15m – 20m. The canopy appeared to be natural regeneration in origin with no understorey, particularly in Q1. Some ground flora grew up to 1.5m tall with bramble other areas of lower ground flora up to 30cm tall (ferns). A small watercourse ran through and is channelled beneath the existing track. The ground was sloping and free draining for the most part with no evidence of management around Q1. Some clearance had taken place around Q2 nearer to the paddock. Cut branches were piled at the edge of the track and the more open area contained a more diverse ground flora. The pony belonging to the bungalow/farm buildings grazing the field, uses the woodland area also. No fences or gates are present at this point.

Other species which did not fall in the quadrat: *Ficaria verna*, *Circaea lutetiana*, *anemone nemorosa*

	Q1	Q2
	Lat 51.6840 Long - 03.7412	Lat 51.6838 Long - 03.7415
	What3 Words Opening/joints/announce	What3 Words Skinny/quite/whisker
Species	% cover	% cover
<i>Alnus glutinosa</i>	30	10
<i>Asplenium scolopendrium</i>	0	1
<i>Athyrium filix-femina</i>	4	0
<i>Betula pendula</i>	30	10
<i>Carex remota</i>	1	2
<i>Chrysosplenium oppositifolium</i>	0	1
<i>Corylus avellana</i>	0	30
<i>Deschampsia cespitosa</i>	3	4
<i>Digitalis purpurea</i>	1	0
<i>Dryopteris dilatata</i>	0	2
<i>Fagus sylvatica</i>	2	0
<i>Fraxinus excelsior</i>	0	5
<i>Hedera helix</i>	2	25
<i>Hyacinthoides non-scripta</i>	25	25
<i>Holcus mollis</i>	2	0
<i>Lonicera preiclymenum</i>	20	15
<i>Lysmachia nummularia</i>	10	0
<i>Oxalis acetosella</i>	1	0
<i>Quercus robur</i>	2	4
<i>Rubus fruticosus</i>	5	1
<i>Salix caprea</i>	40	0
<i>Sorbus aucuparia</i>	2	1
<i>Ulex europaeus</i>	2	4

<i>Veronia montana</i>	1	30
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Restored ancient woodland area, Q3 & Q4 11th June 2024

The woodland lay on steeply sloping ground, facing northwest with small watercourses running through it on rocky substrate. The canopy species were mostly even aged with no understorey present growing to a height of 15m-20m. The ground flora varied from one side of the track to the other indicating a possible difference in woodland community. The northern side of the track was covered densely by bracken and bramble growing to 1.75m and was difficult to enter owing to the build-up of dead vegetation on the slope. The southern quadrat was more open with lower growing heathland/acidic species with similarities in the canopy. No management was evident here with no boundaries of land parcels.

Additional species not falling into a quadrat; *Luzula sylvatica*, *vaccinium myrtillus*, *Blechnum spicant*, *Carex remota*, *Chisosplenium oppositifolium*

	Q3	Q4
	Lat 51.6837 Long - 03.7406	Lat 51.6836 Long - 03.7406
	What3 Words unwraps/convinces/converged	What3 Words estimates/posed/torches
Species	% cover	% cover
<i>Alnus glutinosa</i>	40	0
<i>Betula pendula</i>	20	10
<i>Deschampsia flexuosa</i>	0	10
<i>Dryopteris dilitata</i>	0	15
<i>Hedera helix</i>	20	5
<i>Hyacinthoides non-scripta</i>	10	3
<i>Holcus mollis</i>	5	0
<i>Oxalis acetosella</i>	4	0
<i>Polytricum commune</i>		90
<i>Pteridium aqualinum</i>	90	1
<i>Quercus robur</i>	10	60
<i>Rubus fruticosus</i>	50	3
<i>Salix caprea</i>	15	0
<i>Sorbus aucuparia</i>	10	10
<i>Ulex europaeus</i>	7	20

Ancient woodland Q5 and Q6 11th June 2024

A block of woodland with similar characteristics between the two samples in the canopy species and structure growing to approximately 15m-20m on fairly steeply sloping ground. Canopy species appeared to be mostly of an even age and semi-mature like Q1 and Q2 with more silver birch present. No mature or over-mature canopy species were present, no understorey was present with a dense ground flora dominated by bracken at Q5, which was less dense in Q6 growing to a height of 1.75m. Like Q3 and Q4 the woodland on the northern side of the track had differences in the ground flora indicating a different community type. No evidence of management in these areas with a fence to the edge of the grazed land to the east northeast.

	Q5	Q6
	Lat 51.6848 Long - 03.7334 (+/-11m)	Lat 51.6844 Long - 03.7339 (+/-15m)
	What3 Words saves/joked/latitude	What3 Words caps/layover/passwords
Species	% cover	% cover
<i>Acer pseudoplatanus</i>	1	0
<i>Betula pendula</i>	60	20
<i>Deschampsia flexuosa</i>	0	5
<i>Dryopteris dilatata</i>	10	40
<i>Hedera helix</i>	10	1
<i>Hyacinthoides non-scripta</i>	70	40
<i>Holcus mollis</i>	0	2
<i>Luzula sylvatica</i>	0	1
<i>Oxalis asyetosa</i>	0	1
<i>Pteridium aquilinum</i>	90	50
<i>Quercus robur</i>	1	10
<i>Rubus fruticosus</i>	60	5
<i>Salix caprea</i>	2	0
<i>Sorbus aucuparia</i>	2	30

Plantation on ancient woodland Q13,Q14, Q15 14th June 2024

Plantation with crop species planted densely on the sloping ground and on various level areas of tracks to a height of 15-20m. Some areas of natural woodland regeneration from scrub but did not contain any representative ground flora at Q13. No management apparent in these areas with access along mapped tracks difficult or impassible. Some ground flora growing on artificially piled rocks but generally showing similar ground flora in Q14 and Q15

Rhododendron planted or self-sown near to Q15

	Q13	Q14	Q15
	Lat 51.6820 Long -03.7349	Lat 51.6820 Long -03.7331	Lat 51.6818 Long -03.7335
	What3Words eruptions/paint er/icles	What3Words appealing/begin/plenty	Waht3Words Retailing/converged/suggested
Species	% cover	% cover	% cover
<i>Acer pseudoplatanus</i>	2	0	0
<i>Alnus glutinosa</i>	2	0	0
<i>Athyrium filix-femina</i>	10	5	0
<i>Betula pendula</i>	2	0	20
<i>Blechnum spicant</i>	0	2	0
<i>Calluna vulgaris</i>	0	0	20
<i>Chamaenerion angustifolium</i>	5	5	0
<i>Deschampsia flexuosa</i>			
<i>Dryopteris dilitata</i>	10	0	5
<i>Dryopteris filix-mas</i>	0	5	0
<i>Eupatorium cannabinum</i>	2	0	0
<i>Hedera helix</i>	20	2	2
<i>Lysmachia nummularia</i>	0	5	0
<i>Pinus contorta</i>	2	40	10
<i>Polytrichum commune</i>	0	2	20
<i>Rubus fruticosus</i>	60	5	0
<i>Salix caprea</i>	60	2	1
<i>Tsuga heterophylla</i>	5	60	20
<i>Vaccinium myrtillus</i>	0	10	5

Marshy grassland Q7 & Q8 12th June 2024

Area of impeded drainage to the roadside corner of the field (Northwest) near to where the proposed access will enter semi-natural habitats from the existing tarmacked road. Dominated by soft rush with a small diversity of other species present in low abundance growing at about 1m or taller on very gently sloping ground. Occasionally grazed or trampled by a pony kept on the fields and is likely to be present all year round. Other management of the field such as mowing has either ceased or has never been part of the management. The whole field lay on sloping ground but only the far corner showed vegetation of impeded drainage.

	Q7	Q8
	Lat 51.6837 Long - 03.7438	Lat 51.6837 Long - 03.7436
	What3 Words doghouse/unfair/automatic	What3 Words campsites/writing/relaxing
Species	% cover	% cover
<i>Agrostis stolonifera</i>	2	10
<i>Alopecurus geniculatus</i>	0	1
<i>Cerastium fontanum</i>	0	1
<i>Galium palustre</i>	0	1
<i>Holcus lanatus</i>	4	10
<i>Juncus conglomeratus</i>	2	0
<i>Juncus effusus</i>	70	60
<i>Lotus uliginosus</i>	0	1
<i>Ranunculus flammula</i>	5	0
<i>Ranunculus repens</i>	5	5
<i>Rumex acetosa</i>	0	1
<i>Rumex obtusifolius</i>	2	0
<i>Senecio aquatica</i>	0	4
<i>Stellaria palustris</i>	0	1

Lowland neutral grassland Q9 & Q 10 12th June 2024

To the east and south of the rush dominated area of Q7 and Q8 was the remainder of the field compartment. It was of varying quality/composition with abundant creeping buttercup in the southern part of the field nearer a track running along the top the field to access the farm buildings. The quadrats were taken from the area thought to be in the footprint of the proposed access and vegetation had an average height of approximately 5-20cm on gently sloping ground. These areas either side of a remnant hedge were relatively species rich and managed by grazing. Hay cutting of the field was thought to be unlikely and has either ceased or has not been cut for hay in recent years.

	Q9	Q10
	Lat 51.6838 Long - 03.7433	Lat 51.6839 Long - 03.74330 (+/-3m)
	What3 Words quilting/daring/downfield	What3 Words huts/crunched/elbow
Species	% cover	% cover
<i>Anthoxanthum odoratum</i>	4	10
<i>Carex ovalis</i>	0	2
<i>Cerastium fontanum</i>	2	0
<i>Cynosurus cristatus</i>	45	15
<i>Euphrasia nemorosa</i>	0	10
<i>Holcus lanatus</i>	10	4
<i>Hypochaeris radicata</i>	0	4
<i>Leucanthemum vulgare</i>	4	0
<i>Lotus corniculatus</i>	2	4
<i>Luzula campestris</i>	0	1
<i>Plantago lanceolata</i>	4	3
<i>Prunella vulgaris</i>	0	4
<i>Ranunculus repens</i>	10	10
<i>Senecio aquatica</i>	20	4
<i>Trifolium dubium</i>	0	1
<i>Trifolium pratense</i>	8	4
<i>Trifolium repens</i>	1	5

Rush pasture Q11 & Q12 12th June 2024

Area of sloping ground with impeded drainage on the existing track at the penultimate bend. An area unmanaged apart from occasional tramping/grazing by the pony kept in the field containing Q7 – Q10. A Gate at the turn in the track was propped open and had not been used for quite some time. The pony had free access to the woodlands and existing track into Parc Pelenna, but seldom strayed from the field near to the farm buildings and bungalow. This small habitat area between the woodland was thought to be found elsewhere on tracks inside Parc Pelenna and was noticeable for its abundance of short rushes (approximately 25cm in height) and presence of water mint, although this species fell outside the quadrats. It is very likely that this habitat is waterlogged year-round and occurs on thinner soils than the Q7 and Q8.

	Q11	Q12
	Lat 51.6838 Long - 03.7413	Lat 51.6838 Long - 03.7402
	What3 Words winner/undercuts/blinking	What3 Words mediate/consonant/pupils
Species	% cover	% cover
<i>Anthoxanthum odoratum</i>	4	0
<i>Carex remota</i>	0	10
<i>Cerastium fontanum</i>	0	1
<i>Cirsium vulgare</i>	1	0
<i>Digitalis purpurea</i>	0	10
<i>Galium palustre</i>	0	1
<i>Holcus lanatus</i>	4	10
<i>Juncus articulatis</i>	70	0
<i>Juncus effusus</i>	10	5
<i>Lotus uliginosus</i>	10	20
<i>Prunella vulgaris</i>	0	1
<i>Ranunculus flammula</i>	4	0
<i>Ranunculus repens</i>	10	10
<i>Rubus fruticosus</i>	0	10