



Habitat Management Plan

Project: The Paddocks, Beddlinog

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1. Introduction

The applicant is seeking planning permission to create a single dwelling within a parcel of land adjacent to the The Paddocks, Bedlinog. Proposals are to create a single detached dwelling and garden area within the site boundary. The site is rectangular in shape, mainly flat, measures approximately 1300m² and is centred at NGR SO 09296 00437.

The proposed development site sits entirely within the Cwm Fedw Site of Importance for Nature Conservation (SINC) which extends to cover a much larger area in the local landscape. The SINC is a non-statutory designation and designated for a variety of habitat types including acid grassland on the upper slopes, neutral and marshy grassland on the lower slopes, woodland, bracken slopes, heathland, bog and flushes, watercourses and mosaics of habitats.

Merthyr Tydfil Local Development Plan (LDP) policy EnW3 states:

LDP Policy EnW3: Regionally Important Geological Sites, Sites of Importance for Nature Conservation, Local Nature Reserves and Priority Habitats and Species

Paragraphs: -

6.6.28 Development which is likely to have an adverse impact on SINC's, RIGS, LNRs or Priority Habitats and Species will be required to demonstrate that every effort has been made to avoid and mitigate any adverse impacts and that the need for the development outweighs the nature conservation or geological value. Where on site mitigation is not possible or sufficient to prevent any adverse impacts, off-site compensation will be required. Off-site compensation will be secured through planning conditions or Section 106 agreements as appropriate.

6.6.29 As stated above biodiversity and/or geodiversity enhancement and the promotion of ecosystem resilience will be sought through the consideration of development proposals. Development proposals should therefore demonstrate how biodiversity and/or geodiversity interests will be maintained and where possible enhanced. Levels of mitigation and compensation should be appropriate and proportionate with the level of adverse impact and the scale of development.

Merthyr Tydfil Local Development Plan (LDP) policy AS6 states:

LDP Policy AS6: Local nature conservation designations

Using published scientific criteria, Sites of Importance for Nature Conservation have been designated as shown on the LDP Proposals Map. Applications for development affecting these sites and /or the Cwm Taf Fechan Local Nature Reserve, will not be permitted unless full account has been taken of the relevant features so as to prevent damage to their conservation value. Where appropriate, planning conditions or a planning agreement will be employed to safeguard and /or enhance features, or to provide appropriate mitigation and /or compensatory measures.

The development proposals must demonstrate that the SINC features have been taken into account as part of the development, mitigation measures have been implemented to reduce the adverse impacts of the development proposals and that suitable compensation for any unavoidable impacts have been provided.

1.1 Report Prepared By

The report is checked by Aislinn Harris, who is a full member of Chartered Institute of Ecology and Environmental Management (CIEEM). Aislinn is an ecologist with 13 years experience undertaking a wide range of flora and fauna surveys. Aislinn is a licence bat worker with a current NRW survey licence (S089732/1), licensed dormouse ecologist (S089729/1) and licensed great crested newt ecologist (S089731/1).

1.2 Site Location and Context

The proposed development site lies in a rural location approximately 750m to the south of the village of Bedlinog in the Taff Bargoed Valley. The height and level of the site has been increased using soil and stones (pers comm by landowner), as such near the south and east boundary, the ground slopes steeply down to the boundary. Adjacent to the east of the site is a selection of barns, stables, garages and a chalet type building all known as The Paddocks. A track borders the southern boundary which leads westwards up to a farm and south, down towards the B4255. The north and west boundaries lie adjacent to gently sloping grassland. The site and surrounding land are part of a working farm. The farmland is grazed by a mixture of cattle, sheep and horses.

The surrounding habitat slopes downwards from west to east to the valley floor, habitats comprise grassland, areas of woodland and tree lines. There are three watercourses in the vicinity of the site. The main one, Taff Bargoed lies approximately 340m away to the east of the site at its nearest point. The Nant-y-Fedw is located approximately 195m away to the south of the site and an unnamed watercourse, approximately 105m away to the north of the site, both are tributaries of Taff Bargoed.

1.3 Review of Ecological Survey Work

A preliminary ecological appraisal (PEA) of the land within the proposed development boundary was completed on 18th October 2022 by Ecological Services Ltd. The PEA found the site to contain semi improved grassland, short perennial vegetation and scattered trees. Plant species indicative of marshy grassland were noted within the short perennial vegetation.

The site was assessed as having potential to be used by nesting birds, common reptiles and amphibians. The report recommends a number of measures to be put in place during construction and the operational phase of any future development within the site.

1.4 Potential Impacts to Protected Sites

The proposed development site sits within the Cwm Fedw Site of Importance for Nature Conservation (SINC). Regardless of the quality of habitat within the site boundary, the site is a designated SINC and any habitat loss will require mitigation and compensation. **Policy ENW3 and AS6** of Merthyr Tydfil County Borough Council Planning Policy applies to this non statutory designation.

When considering the overall area of Cwm Fedw SINC, the proposed development will result in the loss of a small amount of SINC habitat. The new building and grandstanding areas will take you approximately 1/4 of the overall development site which is 1,304m².

This would result in an approximate direct habitat loss of at least 1,304m².

The remaining land within the development site will be subject to soft landscaping and will be used as garden space. While this will not be direct habitat loss it will still result in a change of habitat type within the site boundary and ultimately the overall SINC area.

Approximately 3,912m² of soft landscaping will be created within the site boundary.

2. Legislation

The **Habitats Directive (Directive 92/43/EEC)** aims to '*contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora in the European territory of the Member States*'. The Directive requires the establishment and conservation of a network of sites within each member state which protect the rarest flora and fauna found across Europe. A number of species and habitats are listed in Annex 2 of the directive for which areas can be designated as a SAC. The aims of the Habitats Directive are transposed into British Law through the **Conservation of Habitats and Species Regulations 2017**.

The **Wildlife and Countryside Act (1981)** as amended provide the legislation framework and protection for Site of Special Scientific Interest (SSSI). The Act also provides varied levels of protection for British wildlife. A SSSI is designated by a statutory nature conservation body such as Natural Resources Wales (NRW) for its make up of flora, fauna, geological and / or physiographical features. Each SSSI should have a citation which describes the site and its special features. The Act has a number of schedules within it which list different wildlife and habitats and the legal protection afforded to them.

The **Environment (Wales) Act 2016** is a wide reaching piece of legislation which seeks help improve the management of Wales' natural resources into the future. The Act sets out a Wales wide approach to planning and managing its natural resources at a national and local level in a sustainable manner. One main requirement for all public bodies, such as local councils, is to maintain and enhance biodiversity where possible within their duties.

2.1 Species Legislation

Based on the habitat assessment made by Ecological Services Ltd in 2022 the below protected species could possibly be affected by the development.

Bats

All British bats are a European protected species and are protected under the Conservation of Habitats and Species Regulation 2017. In summary, they are protected from:

- Deliberate capture, killing and injuring,
- Deliberate disturbance of a breeding site or resting place,
- Damage or destruction of a breeding site or resting place.

Schedule 5 of The Wildlife and Countryside Act (1981) also protects all species of British bat and their roosting locations. British bats are protected from intentional or reckless disturbance and or obstruction of their roosting places. Barbastelle, bechstein, noctule,

brown long eared, common pipistrelle, soprano pipistrelle, greater horseshoe and lesser horseshoe bats are also listed in section 7 of the Environment (Wales) Act 2016 which makes them a key species to sustain and improve biodiversity.

Nesting Birds

All breeding birds are protected under schedule 1 of the Wildlife and Countryside Act (1981) as amended. Under this Act it is an offence to:

- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built.
- Intentionally take or destroy the egg of any wild bird

Enhanced protection is afforded to species listed on Schedule 1 of the Act, this additional protection makes it an offence to:

- Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

Reptiles

Reptile such as the slow worm, common lizard, adder and grass snake are protected under the Wildlife and Countryside Act 1981(as amended). They are protected from killing, injuring and sale. In Wales sand lizard, smooth snake, adder, grass snake, slow worm and common lizard are listed in section 7 of the Environment (Wales) Act 2016 which makes them a key species to sustain and improve biodiversity.

Amphibians

The four widespread species of amphibian i.e. the smooth and palmate newts, common frog and common toad, are protected under the Wildlife and Countryside Act 1981(as amended) by Section 9(5) of the Wildlife and Countryside Act 1981. This section prohibits sale of these species. Common Toad is listed in section 7 of the Environment (Wales) Act 2016 which makes them a key species to sustain and improve biodiversity.

3. Mitigation and Compensation Strategy

The 2022 site visit by Ecological Services Ltd did not find any habitat present within the site boundary which would meet the criteria for SINC designation. The development site has been subject to disturbance across the years and a lack of suitable management to encourage biodiversity value in line with the SINC designation.

3.1 Step 1 - On Site Mitigation

Ideally any mitigation and compensation measures for habitat loss should be undertaken within the development site boundary. Adequate on site mitigation and compensation cannot be achieved in this instance. **The development will result in the direct loss of 1,304m² of habitat.** The remaining 3,912m² will be subject to soft landscaping and use as garden space. On site landscaping will be designed to benefit wildlife where possible but the exclusive use of non native species within a garden setting is not realistic.

Biodiversity enhancement measures will be provided within the site boundary in the form of integrated bat and bird boxes, native planting and hedgehog passes in any fencing. These features will be added to address the Environment Act (Wales) 2016 biodiversity duty.

3.2 Step 2 - Off Site Compensation

Discussion has been undertaken with the client and design team around the potential adverse impacts and requirements of developing land within a SINC designation. As it is not possible to compensate for SINC habitat loss within the site boundary, off site compensation is required. The development site is part of a family owned and run farm. A suitable off site compensation site has been suggested which can be enhanced to meet the criteria of the Cwm Fedw SINC.

The proposed development site will be owned by the applicant. The proposed off site compensation site will be owned by the applicant. If either the proposed development site and or compensation site is ever sold details of all management obligations within this management plan will be passed on to future owners as part of any legal documentation associated with the purchase

3.3 Proposed Compensation Site

A site visit was undertaken on the 22nd September 2023 by Aislinn Harris of Ecological Services Ltd. The compensation site is a large field centred at SO0943600496 and located approximately 75m to the east of the eastern boundary of the development site at its closest point. **The compensation site measures approximately 9,803m².** The location of the compensation site in relation to the development site is shown in Figure 1 below.



Figure 1 - Site Context

Photographs of the compensation site can be found in Appendix 2 below. A habitat map of the compensation site is provided in Appendix 1. The compensation site is bounded by a **post and wire fence line** around the perimeter. A post and wire fence dissects the field into two approximately 3/4 of the field to the east. A 5 bar metal gate allows access between the 2 sections. A stream flows within the tree line along the northern boundary of the site, from west to east, at a lower level than the site. The compensation site slopes downwards from east to west and is currently grazed by a cow and calf.

The majority of the compensation site is considered to be **species poor semi improved grassland**. Species noted with the sward include Italian rye grass, cocksfoot, common mouse ear, chickweed, ribwort plantain, yarrow, common cudweed, Shepherds purse, annual meadow grass, common bent and occasional selfheal. The eastern field is more heavily grazed as the grassland sward is shorter and more even, the western field grassland is longer and tussocky with bracken encroaching.

A portion of the western field contains **tall ruderal vegetation** dominated by nettle and broadleaved dock. The tall ruderal vegetation is present along the southern boundary of the field. The southern boundary of the western field is a **tree line**. Species noted within the tree line include Hazel and hawthorn. The understory of this **tree line** is entirely semi improved grassland. Along the north western boundary of western field is a band of **bramble scrub** which mostly sits outside of the field but grows over the post and wire

fence line. The tree line to the north of the field which follows the stream sits lower than the field due to sloping topography. As the tree line is not directly adjacent to the field it hasn't been noted as within the habitat map. A single alder tree is present within the field, to the north east. The tree is in poor health with a cracked trunk and rotten limb present. These features have bat roosting potential.

A **tree line** is present to the north and northeast of the eastern most field. Species noted within the **tree line** include hazel, ash, sessile oak, hawthorn, holly and silver birch with an understory of bramble and bracken. **Bracken** is starting to encroach into the field and was noted along the north and eastern edges mainly. The majority of this field is assessed as being **species poor semi improved grassland** with species recorded including common bent, dandelion, yorkshire fog, germander speedwell, yarrow, Italian rye grass, common bent and bracken.

4. Compensation Site Management

The proposed development site sits entirely within the Cwm Fedw SINC. When reviewing the habitat map of the entire SINC site by DCE Ltd (2007) it appears that the compensation site is outside of the SINC boundary. The farm and proposed development site are mapped as a mixture of semi improved neutral grassland and marshy grassland.

As compensation for the loss of designated SINC habitat the compensation site has been identified as suitable parcel of land to enhance its biodiversity value. The field is currently subject to low intensity cattle grazing as part of the applicants farm. **The overall aim for the compensation site will be to improve the floral diversity of the grassland and create species rich neutral grassland.** The sloping topography of the site would make the creation of marshy grassland unlikely.

Management strategies for the compensation site were discussed with the applicant. The applicant would like to manage the compensation site via cut and collect practice vs grazing. **The compensation site will require suitable management to improve floral diversity in perpetuity.** No seeding or introduction of plant species will be undertaken. It is hoped that through suitable management to reduce soil fertility naturally occurring plant species within the soil seed bank will establish.

4.1 Mowing Strategy for Compensation Site

- All grassland habitat within both sections of the compensation site will be managed via mowing. For the first few years of management 2 cuts per year will be undertaken to help reduce soil fertility and prevent bracken encroachment. Amendments to the cutting frequency can be undertaken from year 3 onwards.
- The grassland will be cut twice each year for at least 3 years. The grassland will be cut in April and September each year. All cuttings will be collected and removed to an agreed compost location in the eastern most field.
- In year 3 the site will be subject to a summer (May - August inclusive) monitoring visit by a suitably experienced ecologist. The ecologist will walk the entire compensation site recording all plant species present. A comparison to the baseline data held within this report will be made and hopefully an increase in species diversity will be recorded. The monitoring visit will make special note of indicator species for neutral grassland present.
- After the monitoring visit changes to the management regimes within the compensation site can be proposed and agreed with the Local Planning Authority Ecologist. Any amendments to the agreed Habitat Management Plan must be agreed in writing with the LPA ecologist prior to being implemented.

4.2 Tree Planting

- To help improve diversity within the compensation site 4 native trees will be planted within the compensation site. All planted trees must be root ball and at least 1.5m in height as opposed to sapling whips. By using root ball trees the specimens are more likely to establish and to establish more quickly into mature trees.
- It is not proposed to graze the compensation site therefore tree protection is not suggested at this point. If management is to switch to grazing in the future tree protection will be required to prevent cattle damage to trees while they are establishing.
- It is recommended that native sessile oak trees are planted. Any failed planting must be replaced in the next growing season.

4.3 Compost Area

- All cuttings collected, as part of the mowing activities within the site boundary, will be deposited in the north eastern corner of the eastern most field within the compensation site.
- This area has been chosen as its the lowest point within the compensation site. Therefore any nutrients that leach out of the material as it decomposes will not run into the compensation site.
- A compost pile will also provide an additional habitat for small animals such as slow worm/ grass snake, fungi and small invertebrates. The decomposing material provides heat and shelter for a range of animals and species.

5. Development Site Enhancement Measures

5.1 Birds

The **provision of one integrated bird box within the new dwelling** within the development site will provide additional nesting habitat for use by birds. Integrated bird boxes offer permanent nesting opportunities, are unobtrusive and maintenance-free. The nest box will be installed no lower than eaves level on the dwelling. The integrated bird box will be provided on the North, east or west elevation.

A Woodstone Build-in Open Nest Box (or similar design depending on stock availability) will be used. Photographs of the installed bird box will be sent to the LPA ecologist via email.

5.2 Bats

The **provision of one integrated bat box within the new dwelling** within the development site will provide additional nesting habitat for use by birds. Integrated bat boxes offer permanent roosting opportunities, are unobtrusive and maintenance-free. The bat box will be installed no lower than eaves level on the dwelling. The integrated batbox will be provided on any elevation providing no windows or external lights are located within 2m of the box.

A Vivara Pro Build-in Woodstone Bat Tube (or similar design depending on stock availability) will be used. Photographs of the installed bat box will be sent to the LPA ecologist via email.

5.3 Lighting

An external lighting design for the proposed development was not available at the time of writing this report. Any lighting strategy must have regard to the below measures and ensure they are implemented as part of the lighting design for the development:

- *Do not "over" light. This is a major cause of obtrusive light and is a waste of energy. Use only the minimum amount of light needed for safety. There are published standards for most lighting tasks, adherence to which will help minimise upward reflected light.*
- *Eliminate any bare bulbs and any light pointing upwards. The spread of light must be kept near to or below the horizontal.*
- *Use narrow spectrum bulbs to lower the range of species affected by lighting.*

- *Use light sources that emit minimal ultra-violet light. Insects are attracted to light sources that emit ultra- violet radiation.*
- *Reduce light-spill so that light reaches only areas needing illumination. Shielding or cutting light can be achieved through the design of the luminaire or with accessories, such as hoods, cowls, louvers and shields to direct the light.*
- *Reduce the height of lighting location. Light at a low level reduces ecological impact. However, higher mounting heights allow lower main beam angles, which can assist in reducing glare.*
- *Limit the times that lights are on to provide some dark periods for wildlife. External lighting will be motion activated and set to remain on for the shortest amount of time possible.*

Dark corridors around the site must be protected from any light spill. Nocturnal species, including bats use linear features such as tree lines and hedgerow as a navigation tool to commute and also to feed along on the insects that hedgerows support.

5.4 Fencing

All fencing within the site will be hedgehog friendly in design. A friendly design is considered to allow passage of small animals across the site. It will provide either a continuous gap of at least 13cm between the bottom of the fence and ground, alternatively 13cm by 13cm gaps can be cut every 3m along fencing.

6. Management Schedule

A programme of management works will be required for the compensation site to ensure it is maintained and managed into the future. All work within this document will be undertaken by the Site Owner with supplementary external support when required from specialists.

Construction work is anticipated to start in 2024 once planning consent has been granted. This management plan will run for a 5 year period. After 5 years the plan will be reviewed and amended if necessary. For the purpose of the management works and timetable within Appendix 4 year 0 will the year work on site commences. **Year 0 will be a 12 month period from when works on site commence which is understood to be 2024.**

All work detailed within section 5 of this report i.e enhancement measures within the development site, will be completed within 5 years of the start of construction work.

A table is provided in Appendix 2 for the management works required for a 5 year period from the completion of construction works within the site boundary. Once the 5 year period has passed, the management plan and works within this document will be reviewed by an ecologist. The management works will be amended as necessary to ensure each ecological asset is retained to meet the aim it was implemented to satisfy. All relevant sections of this management plan and the management table in Appendix4 will be amended and agreed in writing with the council ecologist and planning department for Merthyr Tydfil County Borough County Council.

A monitoring visit of the development site will be required by an ecologist. One monitoring visits in year 3 to check on vegetation regrowth in the development site boundary and the progression of grassland management in the wider grassland habitat.

Reference List

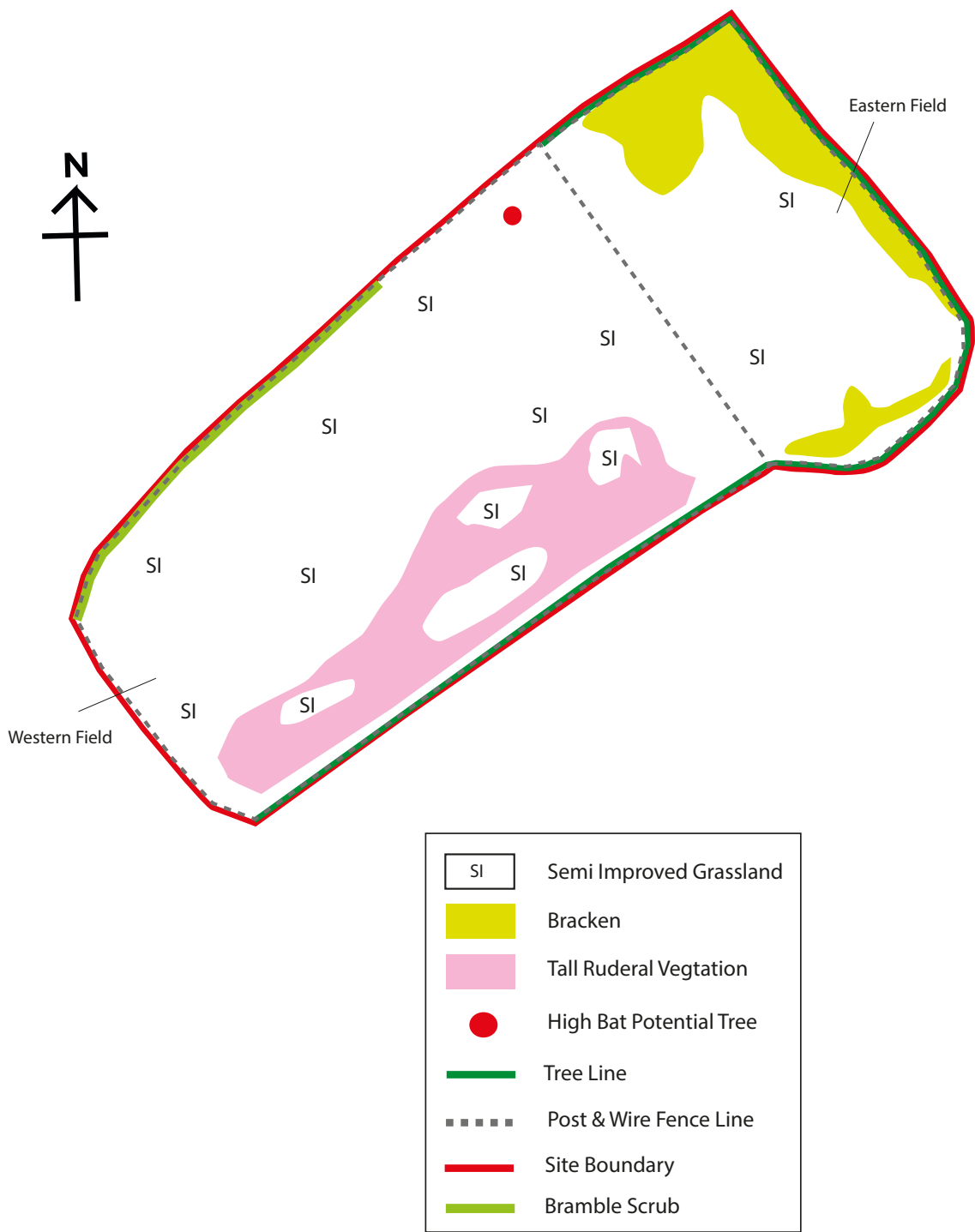
- Ecological Services Ltd (1st November 2022) '*Preliminary Ecological Assessment Land Adjacent to The Paddocks, Bedding CF46 6UF*' V1
- Blakesley, D & Buckley, G.P. (2016) *Grassland Restoration and Management*. Exeter: Pelagic Publishing, UK
- The South Wales Wildlife Partnership (2004) *Guidelines for the Selection of Wildlife Sites in South Wales*

Appendix 1 - Compensation Site Habitat Map

THE PADDOCKS, BEDLINOG

Compensation Site Habitat Map

September 2023



Appendix 2 - Compensation Site Photographs



Tall ruderal vegetation along southern boundary



Tree line along southern boundary looking west



Post & Wire fence dividing the field



Western field boundary



Bramble scrub along north western boundary



Western field looking east



Potential bat roost feature



Alder tree in western field



Bracken encroaching into north east of east field



Western boundary of field



Southern edge of east field



Eastern field looking south

Appendix 3 - Species List

Species	Common Name
Trees & Scrub	
<i>Corylus avellana</i>	Hazel
<i>Crataegus monogyna</i>	Hawthorn
<i>Fraxinus excelsior</i>	Ash
<i>Acer pseudoplatanus</i>	Sycamore
<i>Ilex aquifolium</i>	Holly
<i>Rubus fruticosus</i>	Bramble
<i>Ulmus sp</i>	Elm sp
<i>Quercus petraea</i>	Sessile Oak
<i>Alnus glutinosa</i>	Alder
<i>Betula pendula</i>	Silver Birch
<i>Rubus fruticosus</i> agg	Bramble
Herbaceous Plants	
<i>Trifolium pratense</i>	Red Clover
<i>Chamaenerion angustifolium</i>	Rosebay Willowherb
<i>Calystegia sepium</i>	Hedge bindweed
<i>Lotus corniculatus</i>	Bird's-foot trefoil
<i>Rumex obtusifolius</i>	Broad leaved dock
<i>Urtica dioica</i>	Nettle
<i>Cirsium arvense</i>	Creeping Thistle
<i>Ranunculus repens</i>	Creeping buttercup
<i>Rumex acetosella</i>	Sheep Sorrel
<i>Dactylis glomerata</i>	Cocksfoot
<i>Lolium multiflorum</i>	Italian Rye Grass
<i>Cerastium fontanum</i>	Common mouse ear
<i>Stellaria media</i>	Chickweed
<i>Plantago lanceolata</i>	Ribwort plantain 
<i>Achillea millefolium</i>	Yarrow
<i>Persicaria maculosa</i>	Redshank
<i>Sonchus arvensis</i>	Perennial sow thistle
<i>Potentilla erecta</i>	Tormentil
<i>Prunella vulgaris</i>	Selfheal
<i>Gnaphalium uliginosum</i>	Marsh cudweed
<i>Capsella bursa-pastoris</i>	Shepards purse
	Mustard sp

Appendix 4 - Management Table

		Month											
Year		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
On-going habitat management - Compensation Site													
Mowing of grassland	0, 1, 2, 3, 4, 5												
All cuttings collected & moved compost area	0, 1, 2, 3, 4, 5												
Tree Planting	0												
Monitoring of Compensation Site													
Monitoring visit & review of management plan	3 & 5												