

PARK HENDRE - PRELIMINARY ECOLOGICAL APPRAISAL



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Executive Summary

Grounded Trees were commissioned to undertake a Preliminary Ecological Appraisal (PEA) of the habitats within a plot of land located within Park Hendre, Capel Hendre, Ammandford, SA18 3FA. The plot of land is centred at National Grid Reference SN 59832 11057 and is hereafter referred to as the 'Site'.

The desk study returned several records of protected and / or notable species within 1km of the Site including; Western European Hedgehogs *Erinaceus europaeus*, Badger *Martes martes*, Hazel Dormouse *Muscardinus avellanarius*, Common Pipistrelle *Pipistrellus pipistrellus*, invertebrates and Invasive Non-Native Species (INNS).

Priority Habitat was identified on Site in the form of hedgerows. However, no hedgerows on Site qualify as Important Hedgerows under the Hedgerow Regulations 1997.

The PEA site visit identified habitats that are suitable for, Hedgehog, reptiles, amphibians, breeding bird and foraging habitats for bats.

The recommendations made in this report aim to assist with achieving net benefit for biodiversity (NBB), which aims to deliver an overall improvement in biodiversity and is assessed qualitatively, in accordance with Chapter 6 of Planning Policy Wales (PPW) Edition 12 (2024) and include:

- Protection and retention of Priority Habitats, where practicable;
- Where not practicable, habitats should be replaced at a ratio greater than 1:1, in agreement with the Local Planning Authority.
- Further targeted reptile surveys in suitable habitat; and
- Precautionary methods of working and Ecological Clerk of Works (ECoW) for Hedgehogs, amphibians, and breeding birds prior to vegetation clearance and ground works.

The inclusion of a sensitive lighting plan, planting native species and wildflower areas as part of landscaping and habitat creation, invertebrate hotels and habitat piles, and installation of nest boxes for bats and birds recommended as enhancements for this development.

These recommendations demonstrate that the 'stepwise approach' has been followed to avoid, minimise, mitigate and compensate impacts resulting from the Proposed Development, as described in PPW Edition 12. The measures proposed support the Proposed Development in 'promoting the resilience of ecosystems,' as required in accordance with the Section 6 of the Environmental (Wales) Act 2016



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1. Introduction

1.1. Background

Project background

- 1.1.1. Grounded Trees were commissioned to undertake a Preliminary Ecological Appraisal (PEA) of the habitats within a plot of land located within Park Hendre, Capel Hendre, Ammandford, SA18 3FA. The plot of land is centred at National Grid Reference SN 59832 11057 and is hereafter referred to as the 'Site' (see Figure 1).
- 1.1.2. It is understood the intention is to develop the Site, constructing an industrial unit with associated access, parking and associated landscaping, hereafter referred to as the 'Proposed Development'. The purpose of this PEA is to provide sufficient information to update the baseline ecological information about the Site to support the planning application of the Proposed Development.

1.2. Scope of Report

- 1.2.1. Grounded Trees were commissioned in April 2024 to complete a PEA of the Site. The brief was:
- To provide baseline ecological information about the Site with particular reference to whether legally protected and / or notable sites, species or habitats are present or likely to be present;
 - To provide recommendations to enable compliance with relevant nature conservation legislation and planning policy; and
 - If necessary, to identify the need for avoidance, mitigation, compensation or enhancement measures and / or further ecological surveys.

1.3. Relevant Legislation and Policy

- 1.3.1. The appraisal has been compiled with reference to the following relevant nature conservation legislation, planning policy and the UK Biodiversity Framework from which the protection of sites, habitats and species is derived in Wales.

Legislation

- The Conservation of Habitats and Species Regulations 2017 (as amended) (Habitats Regulations);
- The Wildlife and Countryside Act 1981 (as amended) (WCA);
- Countryside Rights of Way Act 2000;
- The Town and Countryside (Environmental Impact Assessment) (Wales) Regulations 2017;
- The Protection of Badgers Act 1992;
- The Wild Mammals (Protection) Act 1996;
- The Hedgerow Regulations 1997;
- Environment (Wales) Act 2016;
- The Wellbeing of Future Generations (Wales) Act 2015

Policy

- The UK Post-2010 Biodiversity Framework (2011-2020) (JNCC and DEFRA, 2012);

- UK Biodiversity Action Plan (UKBAP)¹;
- Planning Policy Wales (PPW) (Edition 12) 2024;
- Technical Advice Note 5; Nature Conservation and Planning 2009;
- Carmarthenshire Local Development Plan 2018-2033;
- Carmarthenshire Biodiversity Action Plan (BAP);
- Carmarthenshire Local Nature Recovery Plan 2020-2030; and
- Information relating to the stepwise approach detailed in Swansea Council Supplementary Planning Guidance: Biodiversity and Development.

¹ The UK BAP has now been replaced by the UK Post-2010 Biodiversity Framework, however, it contains useful information on how to characterise important species assemblages and habitats which is still relevant.

2. Methods

2.1. Overview

- 2.1.1. This appraisal has been prepared with reference to current good practice guidance published by the Chartered Institute for Ecology and Environmental Management (CIEEM, 2017a, 2017b and 2018), Joint Nature Conservation Committee (JNCC, 2010); and guidance contained in the British Standard - Code of Practice for Biodiversity and Development BS42020:2013 (British Standards Institute (2013).
- 2.1.2. This PEA is based on the following data sources:
- An ecological desk study;
 - A habitat survey; and
 - A protected / notable species assessment.
- 2.1.3. All trees and structures on Site were subject to ground level roost assessments to assess their suitability for supporting roosting bats. These assessments were made in line with good practice guidelines (Collins, 2023).

2.2. Desk Study

- 2.2.1. A desk study was undertaken in April 2024 to review existing ecological baseline information available in the public domain and to obtain information held by relevant third parties. The desk study was undertaken following current good practice guidance (CIEEM, 2017a and 2017b).
- 2.2.2. To provide the baseline data for the ecological desk study, the following information was requested from West Wales Biodiversity Information Centre (WWBIC):
- Records of legally protected and notable species within 1km of the Site;
 - Records of statutory sites designated for national and international importance within 1km of the Site; and
 - Records of non-statutory sites designated for nature conservation value, Priority Habitats, and Natural Resources Wales (NRW) Priority Areas (including Ancient Woodlands) within 1km of the Site.
- 2.2.3. The findings of the desk study have been incorporated within Section 3 and Appendix A of this report.

2.3. Habitat Survey

- 2.3.1. A habitat survey of the Site (including boundary features) was carried out on the 15th of April 2024. The survey was undertaken by an ecologist that has experience in completing PEAs of sites containing similar habitat types.
- 2.3.2. Habitats were described and mapped following standard Phase 1 habitat types as per JNCC guidelines (JNCC 2010), descriptions of recorded habitats are in Section 3.2 and shown in Figure 2.

- 2.3.3. Where appropriate consideration was given to whether habitats qualify, or could qualify, as Priority Habitats following habitat descriptions published by the Joint Nature Conservation Committee (JNCC, 2008).
- 2.3.4. Habitats were marked on a mobile mapping computer and were subsequently digitised using a Geographical Information System (GIS).
- 2.3.5. Target notes were made to provide information on specific features of ecological interest (e.g. reptile habitat piles). These are included in Appendix B and shown on Figure 2.
- 2.3.6. Any invasive plant species listed on Schedule 9 of the WCA 1981 (as amended) which were evident during the habitat survey were also target noted. Detailed mapping of such species; or a full survey of the Site for all invasive plant species is beyond the scope of this commission.

2.4. Ground Level Tree Roost Assessment

- 2.4.1. All trees within the Site were inspected from the ground to enable an assessment of their suitability for supporting bat roosts as per Collins (2023).
- 2.4.2. A visual inspection of trees was completed to search for features which may provide potential roosting opportunities for bats. Where suitable features were noted, their location and a brief description of the feature was recorded.
- 2.4.3. Trees were categorised as the following:
 - None – a tree with no features deemed suitable for roosting bats;
 - FAR – further assessment required to establish if PRFs present within tree; and
 - PRF – a tree where at least one potential roost feature (PRF) is present.
- 2.4.4. Trees were considered as requiring further surveys if they were assessed FAR or PRF and within the construction footprint, or at a distance where they may be likely to suffer disturbance from lighting, vibration or noise, or likely to support a roost of high conservation status that may be impacted by the severing of commuting routes from the roost, and lighting, noise, vibration impacts.

2.5. Protected Species Assessment

- 2.5.1. The potential for the Site to support legally protected and notable species was assessed using the desk study results and combined with field observations during the habitat survey. The assessment of habitat suitability for protected and notable species was based on professional experience and judgement.
- 2.5.2. Findings from field and desk elements were supplemented by standard sources of guidance on habitat suitability assessment for key faunal groups including; Birds (Gilbert et al, 1998 and Bibby et al, 2000), Great Crested Newt *Triturus cristatus* (Gent and Gibson, 2003 and English Nature, 2001); Reptiles (Froglife, 1999 and Gent and Gibson, 2003); Bats (Collins, 2024); Badger *Martes martes* (Harris et al, 1991 and Roper, 2010); Hazel Dormouse *Muscardinus avellanarius* (English Nature, 2006); and Invertebrates (Drake et al, 2007 and Kirby, P, 2001).

2.6. Notes and Limitations

2.6.1. Every effort has been made to provide a comprehensive description of the Site; however, the following specific limitations apply to this assessment:

- Ecological survey data is typically valid for two years (CIEEM, 2019) unless otherwise specified, for example if conditions are likely to change more quickly due to ecological processes or anticipated changes in management.
- Records held by local biological record centres and local recording groups are generally collected on a voluntary basis; therefore, the absence of records does not demonstrate the absence of species, it may simply indicate a gap in recording coverage.
- The Phase 1 Habitat survey was carried out over the period of a single day, as such only a selection of all species that occur within the Site will have been recorded. However, through use of desk study information to supplement site survey data, it is considered that an accurate assessment of the potential for the Site to support protected species or those of conservation concern was possible.
- The Phase 1 habitat map (Figure 2) has been reproduced from field notes and plans. Whilst this provides a sufficient level of detail to fulfil the requirements of a PEA, the maps are not intended to provide exact locations of key habitats.



3. Results

3.1. Designated Sites

Statutory Sites

- 3.1.1. One national statutory nature conservation site, the Caeau Capel Hendre Site of Special Scientific Interest (SSSI) was identified within 1km of the Site. A description is detailed in Table 1.

Table 1 - Statutory designated sites of national importance within 1km of the Site

Site Name	Designation	Size (ha)	Approximate Distance and orientation from Site	Description
Caeau Capel Hendre	SSSI	1.7 ha	5.3 km west	Caeau Capel Hendre is a notable example of the more species-rich type of caraway grassland, situated on moderately acidic soils.

Non-Statutory Sites

- 3.1.2. The desk study did not identify any non-statutory sites within 1km of the Site.

OTHER HABITATS OF CONSERVATION IMPORTANCE

- 3.1.3. The desk study identified eight habitats of conservation importance within 1km of the Site, these included:
- Five Ancient Woodland Inventory (AWI) woodlands, the closest being 260m northeast of the Site;
 - One restored Ancient Woodland site reported 950m northwest of the Site;
 - One NRW Priority Area (Heathland and Grassland) 500m west of the Site; and
 - One B-line² that's area covers and extends beyond the boundaries of the Site.

3.2. Habitats

Overview

- 3.2.1. The following account summarises the findings of the habitat survey. A total of nine Phase 1 classification types were identified within the Site. The habitats are mapped on Figure 2 and listed in Table 2 along with areas in hectares (or length for linear features).
- 3.2.2. A description of the habitats orientation and condition within the Site are provided along with an indicative species list. Target notes are provided in Appendix B and photographs in Appendix C.

² B-lines are a national initiative to establish a pathway of connected habitats that support a wide range of invertebrate populations and is supported by 'The Action Plan for Pollinators in Wales' Welsh Government, 2013

Table 2 – Phase 1 Habitat Areas

Phase 1 Habitat Classification Types	Area (ha)	Length (m)	% of Site Area
A1.1.2 – Broadleaved Woodland – Semi-Natural	0.13	-	9
A2.2 – Scattered Scrub	0.19	-	13
B5 – Marshy Grassland	1.05	-	70
G2.1 – Running Water – Eutrophic	-	165	-
J1.2 – Amenity Grassland	0.06	-	4
J1.4 – Introduced Shrub	0.01	-	1
J2.3.2 – Hedgerow with Mature Trees	-	35	-
J2.6 – Dry Ditch	-	140	-
J4 – Bare Ground	0.01	-	1
HS – Hard Standing*	0.3	-	2
TOTAL	1.49	340	100
*Hard Standing not a JNCC phase 1 habitat however included for completeness			

A1.1.1 – Broadleaved Woodland - Semi-Natural

- 3.2.3. Broadleaved woodland was located on a raised bank in the southern area of the site and contained a mix of; semi-mature Silver Birch *Betula pendula*, Goat Willow *Salix caprea*, Hawthorn *Crataegus monogyna*, Hazel *Corylus avellana* and Pedunculate Oak *Quercus robur* with an understory of Gorse *Ulex europaeus*, Dogwood *Cornus sanguinea*, Bramble *Rubus fruticosus* and Ivy *Hedera Helix*.
- 3.2.4. This habitat was not considered to be classed as a Priority Habitat under the category 'Lowland mixed deciduous woodland,' owing to its small size (0.13 ha) and isolation from other similar habitats. It is therefore not considered to be of high ecological value.

A2.2 – Scattered Scrub

- 3.2.5. Scrub habitats were distributed throughout the site consisting mainly of immature Goat Willow and Silver Birch with of Bramble scrub encroachment from woodland margins.
- 3.2.6. This habitat does not align with any Priority Habitat categories.

B5 – Marshy Grassland

- 3.2.7. Much of the site consisted of marshy grassland, species consisted of Juncus sp., Ribwort Plantain *Plantago lanceolata*, Herb Robert *Geranium robertianum*, Sphagnum sp., Horsetail *Equisetum arvense*, Creeping Thistle *Cirsium arvense*, Rosebay willowherb *Chamaenerion angustifolium*, Cuckoo Flower *Cardamine pratensis*, Common Vetch *Vicia sativa*, Goat Willow and Silver Birch.
- 3.2.8. This habitat does not align with any Priority Habitat categories.

G2.1 – Running Water – Eutrophic

- 3.2.9. A series of drainage channels running throughout the site were recorded, these were wet at the time of survey and joined with two culverts (TN1 & TN2) located on the southernmost area of the Site.
- 3.2.10. This habitat does not qualify as a Priority Habitat under the category 'Rivers,' as it does not fit the Priority Habitat criteria and is not of high hydromorphological/ecological status.

J1.2 – Amenity Grassland

- 3.2.11. Amenity grassland was located on the southernmost border of the site, this was part of a wider area that extended from the Site boundary to the public footpath and road to the south, the grassland was heavily managed with a low sward height. Species included; Perennial Ryegrass *Lolium perenne*, White Clover *Trifolium repens*, Ribwort Plantain and Dandelion *Taraxacum officinale*.
- 3.2.12. This habitat does not align with any Priority Habitat categories.

J1.4 – Introduced Shrub

- 3.2.13. A small area of introduced shrub was recorded, this consisted of ornamental hedgerow species.
- 3.2.14. This habitat does not align with any Priority Habitat categories.

J2.3.2 – Hedgerow with Mature Trees

- 3.2.15. A small section of hedgerow with mature trees was in the southeast corner of the Site. It appeared to be irregularly maintained, resulting in an open Hawthorn hedgerow with Goat Willow, Bramble, Dogwood and Dog Rose *Rosa canina*.
- 3.2.16. This hedgerow qualifies as the Priority Habitat 'Hedgerows,' owing to its size, lack of large gaps, and composition of native woody species, although it does not qualify as an Important Hedgerow under the Hedgerow Regulations 1997.

J2.6 - Dry Ditch

- 3.2.17. A dry ditch was recorded on the southwest of the site, this was noted to join with the other, wet drainage channel (G2.1) and was connected to the two culverts within the southern border.
- 3.2.18. This habitat does not align with any Priority Habitat categories.

J4 – Bare Ground

- 3.2.19. A small patch of bare ground consisting of exposed hardcore was located within the northwest of the Site.
- 3.2.20. This habitat does not align with any Priority Habitat categories.

HS – Hard Standing

- 3.2.21. Hard Standing in the form of a tarmacked area of land connecting the Site to a road and public footpath.

3.3. Ground Level Tree Roost Assessment

- 3.3.1. No Trees on Site were assessed as having suitability for supporting roosting bats and are therefore not considered further within this report.

3.4. Protected and Notable Species Assessment

- 3.4.1. The potential for the Site to support legally protected species and notable species has been assessed using the results of the desk study and observations made during the site survey of habitats within and immediately surrounding the Site. A summary of desk study information is included within Appendix A. Desk study records have only been considered below if they are recent (from the last 10 years) and / or if they relate to species that may be supported by habitats at the Site. Habitats present within the Site are suitable for the following species; further consideration is given below to the likelihood for these species to be present within the Site:
- Badger;
 - Hazel Dormouse;
 - Western European Hedgehog *Erinaceus europaeus*;
 - Bats;
 - Birds;
 - Amphibians;
 - Reptiles; and
 - Invertebrates.
- 3.4.2. The Site does not provide suitable habitat for other protected or notable species and other species, beyond those listed above, will not be considered further in this PEA.

Badger

- 3.4.3. One record of Badger were provided within 1km of the Site, 819m from the Site.
- 3.4.4. No Badger setts were recorded during the habitat survey or field signs were recorded during the field survey. The marshy grassland and small area of broadleaved woodland habitats across the Site provide limited foraging and commuting habitat for Badger.
- 3.4.5. Badger are not considered further in this assessment.

Hazel Dormouse

- 3.4.6. One record of Hazel Dormouse were provided within 1km of the Site, 986m the Site.
- 3.4.7. Habitats within the Site were considered to fragmented and sub-optimal for dormice. Sub-optimal habitat for nesting and foraging Dormouse was identified on Site in the form of the small parcel of woodland, species poor hedgerows. Hedgerows within the Site were patchy. In addition, the woodland understory was also quite limited, providing poor foraging and nesting opportunities for dormice.
- 3.4.8. The Site is also isolated from areas of likely optimal Dormouse habitat off-Site and within the wider landscape, such as extensive woodland habitat. Roads, industrial estates and residential areas surround the Site limit the connectivity within the wider landscape.
- 3.4.9. Dormice are not considered further in this assessment.

Western European Hedgehog

- 3.4.10. No records of Western European Hedgehog were provided within 1km of the Site.
- 3.4.11. The Site provides suitable habitat for foraging and commuting Hedgehog, in addition, scrub within the woodland understory is considered suitable to be used as resting locations and nesting sites.

Bats

- 3.4.12. The desk study provided 10 records of bat within 1km of the Site. All records were for a single species; Common Pipistrelle *Pipistrellus pipistrellus*, the closest being 622m from the Site.
- 3.4.13. The Site provides low suitability habitat for foraging and commuting habitats in the form of woodland, hedgerows and grassland.

Birds

- 3.4.14. No records of bird species were provided within 1km of the Site.
- 3.4.15. The majority of the Site was considered to be suitable for common and widespread nesting birds, including the parcels of woodland and hedgerows.

Amphibians

- 3.4.16. No records of amphibians were provided within 1km of the Site. Additionally, no waterbodies were identified within 500m of the Site.
- 3.4.17. Suitable terrestrial habitat for amphibians is present within the Site, in particular within the marshy grassland.

Reptiles

- 3.4.18. No records of reptiles were provided within 1km of the Site.
- 3.4.19. The marshy grassland present on Site were flanked by woodland and scrub, which provided optimal habitat for supporting common reptiles such as Slow-Worm *Anguis fragilis*, Grass Snake *Natrix helvetica* and Common Lizard *Zootoca vivipara*.

Invertebrates

- 3.4.20. A total of eight invertebrate species which are listed as Priority Species in accordance with Section 7 of the Environment (Wales) Act 2016 were identified within 1km of the Site. These are listed in Appendix A. Areas of scrub and marshy grassland present on Site were considered suitable to support mainly common invertebrate species.

Non-native Invasive Plant Species

- 3.4.21. The desk study returned four records of invasive non-native plants within 1km of the Site. Species included Japanese knotweed *Reynoutria japonica*, Himalayan Honeysuckle *Leycesteria Formosa* and Montbretia *Crocasmia × crocosmiiflora*.
- 3.4.22. No invasive species were recorded as part of the Site survey, they are not considered further in this assessment.

4. Discussion and Recommendations

4.1. Designated Sites

Statutory Designated Sites

- 4.1.1. One statutory designated site for national importance was located within 1km of the Site. Due to the localised nature of the Proposed Development (confined to the Site boundary), lack of pathway for potential impacts and distance from the Sites, it is considered that the Proposed Development will not impact upon the statutory designated sites.

Non-Statutory Designated Sites

- 4.1.2. No non-statutory nature conservation sites were located within 1km of the Site. Therefore, it is considered that the Proposed Development will not impact upon non-statutory designated sites.

4.2. Habitats

- 4.2.1. Hedgerows Priority Habitats under the provisions of the Environment Wales Act (2016). In accordance with the Stepwise Approach, these habitats are protected within the Site as part of the Proposed Development. Mitigation measures for the loss of these habitats however are included in Table 3. Written consent will be required from the Local Planning Authority to remove or destroy Priority Habitats within the Site.
- 4.2.2. Impacts upon habitats arising from the Proposed Development therefore could lead to detrimental effects on biodiversity. To ensure a measurable net benefit for biodiversity is achieved recommendations are included in (see Table 3).

4.3. Protected and Notable Species

- 4.3.1. The habitat within the Site is considered to have the potential to support several protected species or species of conservation concern within the Site, or within the immediate surroundings of the Site. These include Badger, Dormouse, Hedgehog, bats, reptiles, amphibians, birds, and invertebrates. The legal protection afforded to these species is outlined below and, where appropriate, the requirement for further survey and / or mitigation measures are identified.

Western European Hedgehog

- 4.3.2. The Western European Hedgehog is listed on Schedule 6 of the Wildlife and Countryside Act (1981) which makes it illegal to kill or capture wild Hedgehogs and is listed under the Wild Mammals Protection Act (1996), which prohibits cruel treatment of Hedgehogs. The species is also listed as a Priority Species in accordance with Section 7 of the Environment (Wales) Act 2016. Public bodies have an obligation under Section 7 to have regard for these species when carrying out their functions.
- 4.3.3. It is likely that Hedgehogs are present and use the Site to forage and commute. Therefore, there may be a negative impact on Western European Hedgehog as a result of the Proposed Development, particularly during site clearance works and through the loss of foraging habitat / resting places. Mitigation measures to minimise effects on Hedgehogs are detailed in Table 3.

Bats

- 4.3.4. All species of bats recorded within the UK are protected from killing, injury and disturbance³ and their roosts protected from damage or destruction under the Habitats Regulations. Protection is also afforded under the Wildlife and Countryside Act 1981 (as amended) with respect to disturbance of individuals occupying places of rest or shelter and obstruction of access to these. Activities that would otherwise constitute an offence under this legislation may be licensed by Natural Resources Wales for certain purposes.
- 4.3.5. Certain species of bats, including the Bechstein's Bat *Myotis bechsteinii*, Greater Horseshoe *Rhinolophus ferrumequinum*, lesser horseshoe *Rhinolophus hipposideros*, Noctule Bat *Nyctalus noctula*, Brown Long-eared Bat *Plecotus auritus* and Soprano Pipistrelle bat *Pipistrellus pygmaeus* are also listed as Priority Species for the conservation of biodiversity in Wales in accordance with Section 7 of the Environment (Wales) Act 2016. Section 7 obliges public bodies to have regard for the conservation of biodiversity (including Priority Species) when discharging their duties (including determining planning applications).
- 4.3.6. Habitats within the Site were considered to be of Low suitability for bats (Collins 2023). Due to the small amount of foraging habitat to be lost as a result of the Proposed Development and abundance of adjacent foraging habitat within the wider area, the Proposed Development it is not anticipated to have a notable impact on bats.
- 4.3.7. Further surveys are therefore not recommended. However general measures to reduce disturbance during construction and operation are included within Table 3, with additional measures proposed in section 4.6 to improve the overall value of the Site for bats.

Birds

- 4.3.8. The Habitat Regulations 2017 Part 1 Regulation 10(2) & (3) state that local authorities 'must take such steps in the exercise of their functions as they consider appropriate to contribute to...the preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds in the UK including by means of the upkeep, management and creation of such habitat...'. The legislation continues to state that economic and recreation requirements must be taken into consideration in considering which measures are appropriate.
- 4.3.9. Under the Wildlife and Countryside Act 1981 (as amended) all wild birds are protected from killing and injury, and their nests and eggs protected from taking, damage and destruction whilst in use. Additional protection is extended to species listed under Schedule 1 of the Act, meaning it is also an offence to disturb these species at or near the nest, or whilst they have dependent young.
- 4.3.10. Various bird species are also listed as Priority Species in accordance with Section 7 of the Environment (Wales) Act 2016.
- 4.3.11. The Site contained a range of habitats with suitability to support common and widespread breeding birds. Further survey recommendations and mitigation measures to avoid effects on birds are described in Table 3.

³ Disturbance is defined within the Habitats Regulations as that which is likely to impair a species ability to survive, breed or reproduce, hibernate or migrate or to significantly affect the local distribution or abundance of the species.

Reptiles

- 4.3.12. Widespread reptile species (Common or Viviparous Lizard, Adder *Vipera berus*, Grass Snake and Slow-Worm) are partially protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This includes protection from killing and injury.
- 4.3.13. All reptile species are also listed as Priority Species in accordance with Section 7 of the Environment (Wales) Act 2016. Public bodies have an obligation under Section 7 to have regard for these species when carrying out their functions.
- 4.3.14. No records of reptiles were returned within 1km of the site. Suitable habitat for reptiles (common lizard, slow-worm and grass snake) is present across the Site, including hedgerows, scrub and marshy grassland.
- 4.3.15. In the first instance it is recommended that where possible, habitat known to support reptiles is retained within the Proposed Development designs. Although the habitat of widespread reptile species is not directly protected by law, habitat removal or alteration has potential to cause death or injury to individual reptiles. This should be avoided to ensure legal compliance. Further survey recommendations and mitigation measures to avoid impacts on reptiles are included in Table 3.

Amphibians

- 4.3.16. Great crested newts are protected from killing, injury and disturbance and their places of rest or shelter (occupied habitat) protected from damage or destruction under the Habitats Regulations. Protection is also afforded under the Wildlife and Countryside Act 1981 (as amended) with respect to disturbance of individuals occupying places of rest or shelter and obstruction of access to these. Activities that would otherwise constitute an offence under this legislation may be licensed by Natural Resources Wales for certain purposes.
- 4.3.17. Great crested newts and common toad are also listed as Priority Species in accordance with Section 7 of the Environment (Wales) Act 2016. Public bodies have an obligation under Section 7 to have regard for these species when carrying out their functions.
- 4.3.18. No records of great crested newt were returned within the desk study and Carmarthenshire is typically considered to be outside of the natural distribution range of great crested newts (French *et al*, 2014).
- 4.3.19. Suitable terrestrial habitat for amphibians is present within the Site, particularly within the marshy grassland. Ditches within the Site also provide suitable breeding habitat for common amphibian species.
- 4.3.20. The Proposed Development could result in the disturbance or destruction of suitable amphibian habitat. Further survey recommendations and mitigation measures to avoid effects on amphibians are described in Table 3.

Invertebrates

- 4.3.21. Common and widespread habitats within the Site (grassland and scrub) were considered suitable to support mainly common invertebrate species. Targeted presence / likely absence surveys are therefore not considered necessary however enhancement measures to ensure the Site remains suitable for invertebrates are included in Section 4.6.

4.4. Further Survey Requirements

- 4.4.1. Potential ecological constraints for which further surveys are required to ensure legal and planning policy compliance are listed in Table 3.

Table 3 - Key Ecological Constraints and Further Survey and Mitigation Recommendations

Ecological Receptor	Potential Constraints	Further Survey Requirements	Constraints (e.g. Seasonal)
Priority Habitats	Loss of priority habitats (hedgerow)	Ecological Management Plan (EcMP) and Construction Environmental Management Plan (CEMP) to be produced in agreement with the Local Planning Authority (LPA) and employed throughout construction works. Retain and protect habitats where possible. Reinststate / replace habitats after completion of works to a higher ecological value. Incorporation of hedgerow / scrub / woodland creation into Proposed Development with native species of local provenance. Biodiversity Net Gain assessment (if undertaken) should be factored into the replacement planting. Priority Habitats lost to be replaced at a ratio greater than 1:1.	Written consent will be required from the LPA to remove or destroy Priority Habitats within the Site
Western European Hedgehog	Killing / injury of Hedgehog through vegetation clearance / construction works.	EcMP and CEMP to be produced in agreement with the LPA and employed throughout construction works. Clearance of suitable terrestrial habitat should be checked in advance by a suitably qualified ecologist to minimise the risk of disturbance and injury / killing. Avoidance of vegetation clearance during the hibernation season, if possible. Specific mitigation measures will require safeguarding by the implementation of a Precautionary Method of Working and ECoW.	Hibernation period - October/November through to March/April
Breeding birds	Destruction of nests through vegetation clearance.	EcMP and CEMP to be produced in agreement with the LPA and employed throughout construction works.	The breeding bird season is considered to be March to September inclusive.

Ecological Receptor	Potential Constraints	Further Survey Requirements	Constraints (e.g. Seasonal)
		Avoidance of vegetation clearance during the breeding bird season. If works must occur within the breeding bird season, then all vegetation must be hand-searched by a suitably qualified ecologist immediately prior to removal. If an active nest is discovered, an appropriate exclusion zone must be set up and no works are to occur within it until the chicks have fledged.	
Bats	Disturbance to foraging and commuting bats through increased light levels	EcMP and CEMP to be produced in agreement with the LPA and employed throughout construction works. Specific measures to be included in relation to a sensitive lighting design in line with guidelines as to reduce the impact of lighting on foraging and commuting bats during construction and operational phases of the proposed development.	n/a
Reptiles / amphibians	Killing / injury of reptiles / amphibians through vegetation clearance/construction works.	A targeted reptile survey is recommended within suitable habitat within the Site. It is likely that prior to clearance of the Site a programme of reptile translocation will be required.	Reptiles are active between March and October. Reptile surveys are best carried out during April, May and September, periods when reptiles are most visible. Seven survey visits are typically required. Mitigation for the loss of suitable grassland habitat will be provided within a reptile survey report.

4.5. Environmental Best Practice

- 4.5.1. General environmental protection measures must be implemented during the construction phase of the Proposed Development. Such measures include best environmental practice guidance outlined in the NRW Guidance for Pollution Prevention (NRW, 2018) and those outlined by the Construction Industry Research and Information Association guidance (CIRIA, 2015). The following minimum standards must be adhered to prevent ecological impacts beyond the Site boundary:

- Measures must be taken to prevent dust and other emissions from construction affecting land beyond the Site.
- Chemicals and fuels must be stored in secure containers located away from watercourses or water bodies. Spill kits must be available.
- Excavations must be covered or securely fenced (with no potential access points beneath fencing) when the Site is closed (e.g. overnight) to prevent entrapment of animals.
- Retained trees must be protected in accordance with BS5837;
- Noise and vibration must be controlled and kept to the minimum necessary.
- Lighting used for construction must be switched-off when not in use and positioned so as not to spill on to adjacent land or retained vegetation within the Site.

4.6. Ecological Enhancement Opportunities

- 4.6.1. Planning Policy Wales (2024) states that the planning system must ensure development results in a net benefit for biodiversity and ecosystem resilience to enhance well-being.
- 4.6.2. It defines a net benefit as development leaving ‘biodiversity and the resilience of ecosystems in a significantly better state than before, through securing immediate and long term, measurable and demonstrable benefit, primarily on or immediately adjacent to the site.’
- 4.6.3. To support local authorities in achieving their Section 6 duty to “promote the resilience of ecosystems” when determining planning applications, the DECCA Framework should be adhered to, in order to ensure a Net Benefit for Biodiversity (NBB) (CIEEM, 2022). This includes following the stepwise approach to minimise land take within the Site.
- 4.6.4. Plans of the proposed development received prior to the completion of this report include the following enhancement opportunities:
 - The incorporation of a wildflower area to the west of the Site;
 - Inclusion of Hedgehog, reptile and invertebrate hibernacula/refugia
- 4.6.5. To encourage compliance with planning policy additional measures have been identified and are recommended for inclusion within the Proposed Development; where possible:
 - Incorporation of sensitive / low UV lighting during construction and operation in line with industry guidance (BCT & ILP 2023) so as to keep visual disturbance of bats to a minimum;
 - Creation of additional hedgerows using native species of local provenance;
 - Installation of bird and bat boxes in trees to provide additional refuge sites for these species’ groups;
 - Good horticultural practice should be utilised, including the use of peat-free composts, mulches and soil conditioners and favouring native plants of local provenance in landscaping; and
 - Avoidance of the use of invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) in the planting.

5. Conclusions

- 5.1.1. The Site comprised of a single land parcel predominantly consisting of marshy grassland with a woodland and scrub habitats, small areas of bare ground, introduced shrub, hedgerows, and ditches were distributed throughout the Site.
- 5.1.2. One national statutory nature conservation site was identified within 1km of the Site. Due to the localised nature of the Proposed Development (confined to the Site boundary), lack of pathway for potential impacts and distance from the Sites, it is considered that the Proposed Development will not impact upon the statutory designated sites.
- 5.1.3. Further survey is required to determine the presence / likely absence of bats and reptiles. Preliminary avoidance and / or mitigation measures are recommended for Hedgehogs, amphibians, breeding birds and in the form of protection / retention of habitats, ECoW and Precautionary Methods of Working.
- 5.1.4. An EcMP and CEMP to be produced in agreement with the LPA and employed throughout construction works.
- 5.1.5. Ecological enhancements are also recommended, such as incorporation of a sensitive lighting scheme, retention of woodland and species-diverse grassland, bird and box installation in order to increase the value of the Site for biodiversity.
- 5.1.6. Priority Habitat identified within the Site (hedgerows) should be retained where possible. Where not possible, the destruction of the habitats should be agreed with the LPA and replaced at a ratio greater than 1:1.

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7. Figures

Figure 1 – Site Location Plan

Figure 2 – Phase 1 Survey Results



Main Map Scale:1:1500 (A3)
Date Modified:27/04/2024

Legend

 Survey Area



Figure 2:

Parc Hendre
Phase 1 Survey Results

Main Map Scale:1:750 (A3)
Date Modified:27/04/2024

Legend

- Survey Area
- Target Note
- G2.1 - Running water
- eutrophic
- J2.3.2 - Hedge with trees
- species-poor
- J2.6 - Dry ditch
- A1.1.1 - Broadleaved
woodland - semi-natural
- A2.2 - Scrub - scattered
- B5 - Marsh/marshy
grassland
- J1.2 - Cultivated/disturbed
land - amenity grassland
- J1.4 - Introduced shrub
- J4 - Bare ground
- Hard Standing



Appendix A

Classifications summary of ecological desk study data

Protected and notable species for which records have been identified within 1km of the Site.

Species common name	Species Latin name	No. of records	Distance from Site (closest)	Legal / Conservation Status ⁴
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	10	622	EPS, HDir, WCA5, S7, Bern, RDB2 (UK), LBAP
Eurasian Badger	<i>Meles meles</i>	1	984	BA, Bern, LBAP
Hazel Dormouse	<i>Muscardinus avellanarius</i>		986	EPS, HDir, WCA5, S7, Bern, RDB2 (UK), LBAP,
Buff Ermine	<i>Spilosoma lutea</i>	1	812	S7
Rustic	<i>Hoplodrina blanda</i>	1	812	S7
Blood-vein	<i>Timandra comae</i>	1	812	S7
Lackey	<i>Malacosoma neustria</i>	1	812	S7
Dot Moth	<i>Melanchra persicariae</i>	1	812	S7
Garden Tiger	<i>Arctia caja</i>	1	812	S7
White Ermine	<i>Spilosoma lubricipeda</i>	1	812	S7
Cinnabar	<i>Tyria jacobaeae</i>	1	812	S7
Wall Screw-moss	<i>Tortula muralis</i>	1	714	RDB1 (Wales)
Japanese Knotweed	<i>Reynoutria japonica</i>	2	427	WCA9, INNS
Himalayan Honeysuckle	<i>Leycesteria formosa</i>	1	459	INNS
Montbretia	<i>crocasmia x crocosmiiflora</i>	1	933	WCA9, INNS

⁴ HabReg = Conservation of Habitats and Species Regulations (2017), W&CA = Wildlife and Countryside Act (1981), NERC = Schedule 42 Natural Environment and Rural Communities Act (2006), LBAP = Local Biodiversity Action Plan, RD1 (Wales) = Welsh Red Data Book listing based on IUCN guidelines, RD1 (UK) = UK Red Data Book listing based on IUCN guidelines, RD2 (UK) = UK Red Data Book listing not based on IUCN guidelines (Nationally Rare and Scarce).

Appendix B

Target Notes

Target Note Number	Target Note Description	Photograph
TN1	Culvert in drainage channel on southern border of site	
TN2	Culvert in drainage channel on southern border of site	

Appendix C

Site Photographs

		
Photograph 1 – Marshy Grassland	Photograph 2 – Hedge with Mature Trees	Photograph 3 – Introduced Shrub
		
Photograph 4– Broadleaved Woodland	Photograph 5 – Running Water	Photograph 5 - Scrub