



Ecological Appraisal Report:

Parc y Delyn, Penlan Road, Carmarthen, Carmarthenshire.

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Summary

I & G Ecological Consulting were commissioned to undertake an ecological appraisal of an area of land of approximately 1.2 hectares in size, located off Penlan Road to the north of Carmarthen in the county of Carmarthenshire.

The land within the site boundary consists predominantly of semi-improved neutral grassland, bracken, blackthorn and bramble scrub with isolated trees, and hedgerows.

No signs of European protected species were observed.



Figure 1. Location of site Grid Ref: SN 41119 20909

An area of land of approximately 0.8 hectares adjoining the development parcel to the north was also surveyed. The land has been provisionally allocated for potential mitigation measures. This land is mainly semi-improved neutral grassland with small areas of bracken, bramble and blackthorn scrub with hedgerow to the eastern and western boundaries.

In terms of the application site, the mixture of semi-improved neutral grassland, bracken, scrub and trees is of moderate ecological interest.

1. INTRODUCTION

- 1.1.1 I & G Ecological Consulting were commissioned to undertake an ecological appraisal of an area of land off Penlan Road, Carmarthen. The site is approximately 1.2 hectares in size, with an additional 0.8 hectares for potential mitigation measures to the immediate north. The report is to inform an application for Planning Permission for a residential development.
- 1.1.2 This report presents the findings of both a desk study and a site appraisal undertaken in June 2020. The report outlines the ecological constraints and opportunities associated with the site.
- 1.1.3 The survey was conducted during optimal conditions. Areas of dense scrub were inaccessible and limited survey coverage.

2. METHODOLOGY

- 2.1.1 Both a desk-based survey and an ecological site survey were undertaken to establish the ecological conditions on site.
- 2.1.2 A field botanical survey was carried out using survey methods that were based on standard Phase 1 Habitat survey techniques. The CIEEM Guidelines for Preliminary Ecological Appraisal were also followed and adhered to.

2.2 *Badgers*

- 2.2.1 The surrounding habitat was assessed for its suitability for badgers which includes the presence of setts, well-worn paths and runs, snagged hair, latrines, footprints and foraging. Any such incidental signs of badgers were recorded if they were encountered.

2.3 *Otters*

- 2.3.1 The surrounding habitat was assessed for its suitability to support otters. The area was searched for otter field signs such as spraint marking, slides, hovers or footprints.

2.4 *Dormouse*

- 2.4.1 The habitats on site, particularly the hedgerows were assessed for their suitability to support dormice.

2.5 *Birds*

- 2.5.1 The habitats on site were assessed for their suitability for breeding birds, including trees, scrub and grassland.

2.6 Bats

- 2.6.1 Habitats on site were assessed for their suitability to support bats, particularly any trees on site that could have bat roosting potential or opportunities.

2.7 Reptiles

- 2.7.1 The habitats on site were assessed for their suitability to support reptiles.

2.8 Amphibians

- 2.8.1 The habitats on site were assessed for their suitability to support amphibians.

2.9 Water Voles

- 2.9.1 The surrounding habitats on site were assessed for their suitability to support water voles.

2.10 Marsh Fritillary

The surrounding habitats on site were assessed for their suitability to support marsh fritillary butterfly and their food plant Devil's bit scabious *Succisa pratensis*.

2.11 Non-Native Invasive Species

- 2.11.1 Any pernicious weeds under Schedule 9, Section 14 of the Wildlife and Countryside Act 1981 (as amended) were also noted and mapped during the site survey. These species include Japanese knotweed (*Fallopia japonica*) and Himalayan balsam (*Impatiens glandulifera*).

3. RESULTS

3.1 Desk study

- 3.1.1 A data search was requested from the West Wales Biodiversity Information Centre for the planning application site and surrounding area of up to 2km. The species information was returned to I&G Ecology on 30th June 2020. A number of protected and notable species records were returned within 2km of the site centre, but none within the site boundary (Fig.11). The records will not be listed here, but the most significant, those which are considered to potentially be affected by development of the site, will be briefly summarised. However, the full data are available upon request to those nominated on the request form, as some data may be classified as sensitive.

- 3.1.2 The significant findings from the data search are summarised below: -

3.1.3 Birds

The data search returned 97 entries of birds which are categorised as priority species. These include starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*),

song thrush (*Turdus philomelos*), dunnoek (*Prunella modularis*) and red kite (*Milvus milvus*) in the near vicinity to the site.

3.1.4 Mammals

The data search returned 97 records of mammals within 2km of the site centre, most significantly these included:-

- 39 entries for bats including common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*P. pygmaeus*) noctule (*Nyctalus noctula*), whiskered (*Myotis mystacinus*), daubentons (*M. daubentonii*) and brown long-eared (*Plecotus auritus*). No roosts are recorded in the vicinity
- 3 entries for badger (*Meles meles*), closest over 900m from site.
- 11 entries for otter (*Lutra lutra*), the closest over 1km away.

3.1.5 Invertebrates

The data search returned 84 records of invertebrates within 2km of the site, mainly for moths. There is 1 record for brown hairstreak (*Thecla betulae*) at the 1km square level, with a number just outside the 2km buffer at Glangwili.

3.1.6 Plants

The data search returned 35 records within 2km of the site, all bar one for bluebell.

3.1.7 Reptiles

The data search returned 9 records of reptiles within 2km of the site – for grass snake (*Natrix helvetica*) common lizard (*Zootoca vivipara*) and slow worm (*Anguis fragilis*). Adder (*Vipera berus*) are recorded just outside the buffer zone.

3.1.8 Amphibians

The data search returned 5 records for amphibians, frog (*Rana temporaria*), common toad (*Bufo bufo*) and palmate newt (*Lissotriton helveticus*) all over 500m away.

3.1.9 Non-native Invasive species

The data search returned 119 records of INNS within 2km of the site. These include Japanese knotweed, Himalayan balsam, Montbretia, Cotoneaster. The nearest record is for Japanese knotweed 500m from the site.

3.1.10 Statutory Designated Sites

There is one site within the search buffer – Afon Tywi SSSI & SAC 1km to the south (Fig. 12).

3.1.11 Non-statutory Sites

SINC – There are no formally notified SINC's within Carmarthenshire.

3.1.12 NRW Priority Areas

There are a number of Priority Areas of habitat within the search buffer but none in close proximity to the site (Fig. 12).

3.1.13 CCW Phase 1 Survey

Information obtained from the Phase 1 Survey of Wales (CCW.1997), was also used to provide an indication of the broad habitat types previously recorded in the local area. The survey mapped the majority of the site as improved grassland, with hedgerow, dense scrub, semi-improved neutral grassland, bracken to the boundaries. It should be noted that whilst the CCW data-set is useful to indicate broad habitat types locally, it is not suitable for site specific assessment. The data set was gathered over a period of years (1979 – 1997) and habitats will have changed in the interim period depending on land use, management, development works etc.

3.2 Site Appraisal

3.2.1 On site survey

3.2.2 The site survey was undertaken on the 24th June 2020 by a suitably qualified ecologist. Where possible, the habitats were cross-referenced to any important UK priority habitats or local habitats adopted by the Local Biodiversity Action Plan.

3.2.3 The land within the red line site boundary (Fig. 2) comprises of semi-improved neutral grassland, hedgerow, bracken, bramble scrub with scattered trees and dense blackthorn scrub. To the north and south east of the site is farmland, with housing development to all other boundaries.



Figure 2. Area surveyed (from Google maps)

Parc y Delyn, Penlan Rd, Carmarthen

- 3.2.4 A significant area of the development site is scrub and bracken with scattered trees and shrubs. A small area of grassland remains to the north. This is contiguous with a larger area of grassland above. Hedgerows/tree lines run to the west, north east and east.

Habitats recorded within red line boundary were as follows:-

3.3 Scrub

- 3.3.1 A band of dense bramble scrub over 2m high encircles the grassland. Bramble is dominant, with frequent nettle and cleavers. More open areas have stands of rosebay willowherb. Trees and shrubs are developing within the bramble and include oak, sycamore and hazel TN1 (Fig. 3). Bracken is frequent, and there are occasional male and harts tongue fern. There is a small stand of montbretia to the north of the access spur.



Fig. 3

- 3.3.2 There are 3 discrete areas of dense blackthorn scrub (TN2, Fig 4). Ivy is the only species present on the ground layer.



Fig.4 Dense blackthorn scrub beyond bracken stand

3.4 Semi-improved neutral grassland

- 3.4.1 Within the development boundary is a small area of semi-improved neutral grassland. This is dominated by Yorkshire fog, with coarser species such as cocksfoot and false oat grass indicating the lack of grazing. Forbes include abundant creeping buttercup, with angelica, hogweed, lesser stitchwort and ragwort frequent and occasional common knapweed, birds-foot trefoil and docks. This then grades to an edge of dense bracken or bramble scrub on all but the northern edge. (Fig. 5; TN3).



Fig. 5

- 3.4.2 To the north of the development boundary and contiguous with it is a larger area of semi-improved grassland (Fig. 6; TN4). False oat grass is conspicuously dominant here, but there is a good variety of meadow grass species. More open areas support a diverse forb community with yarrow, broad leaved willowherb, germander speedwell, common knapweed, hedge woundwort and a number of stands of male and lady fern.



Fig. 6

3.5 Bracken

- 3.5.1 A dense stand of bracken separates the bramble scrub from the grassland in a number of areas. The bracken is tall and there is little ground layer present due to the heavy shading. (Fig. 7; TN5).



Fig. 7

Parc y Delyn, Penlan Rd, Carmarthen

3.6 Hedgerow/Tree-line (boundary feature)

- 3.6.1 The dense scrub precluded a full examination of the hedgelines within the field. All the hedgerows were accessed at a number of locations, and the western boundary hedgerow was surveyed from the roadside.
- 3.6.2 The hedgerow running along the south-eastern boundary is formed on a bank sloping away to the adjacent fields (Fig. 8; TN6). The hedge is dense, with poor ground cover, and comprises of mature, outgrown hazel, holly, and blackthorn, elm, and mature and semi-mature ash and sycamore. Most of the ash is showing signs of die-back. The sparse ground flora includes nettle, hogweed, cow parsley, herb Robert and wood avens, with ivy dominating the more shaded sections. This then transitions to a fringe of suckering elm and then dense bramble.



Fig. 8

- 3.6.3 The hedge running along the western boundary of the site fronts a farm access lane. It is formed on a high earth and stone bank. Blackthorn is dominant with frequent oak, sycamore and hazel are occasional. The road side of the bank is diverse with species including wood sage, bluebell, enchanter's nightshade, cow parsley, red campion, harts tongue and broad buckler fern. (Fig. 8; TN3).



Fig. 9

3.7 Badgers

- 3.7.1 No setts or evidence of badger activity was found on the site. There was significant fox activity, with runs, dens and latrines throughout.

3.8 Bats

- 3.8.1 The majority of trees on the site are semi-mature and lack features suitable for bat roosts. A small number of mature sycamore and ash (showing signs of die-back) within the southern tree line may have potential for bats. The tree lines and hedgerow are likely to provide flight lines and foraging opportunities for bats.

3.9 Otters

- 3.9.1 There is no suitable habitat for otter on site

3.10 Reptiles

- 3.10.1 The vegetation cover over the site is of mixed height, density and structure, and the range of habitats (scrub, bracken and grassland) give the site the structural complexity that reptiles require to provide suitable ecotone areas for basking and cover. The site is south facing, open and sunny and has potential to support reptiles, especially slow worm and adder.

3.11 Amphibians

- 3.11.1 There is no suitable breeding habitat for amphibians on site. The scrubby transition areas between the grassland and hedgerows will support terrestrial phase amphibians and provide refugia.

3.12 Hazel Dormouse

3.12.1 There are no records of dormouse in the area. The hedgerows are well connected to adjacent habitat but have poor structure. Hazel is present in moderate density, but honeysuckle is scarce. The bramble scrub will provide cover and food resource.

3.13 Water Voles

3.13.1 No features suitable for water vole are present on site.

3.14 Birds

3.14.1 A number of bird species were noted during the survey; robin (*Erithacus rubecula*), great tit (*Parus major*), song thrush (*Turdus philomelos*), blackbird (*Turdus merula*), house sparrow (*Passer domesticus*), swallow (*Hirundo rustica*), wren (*Troglodytes troglodytes*), blue tit (*Cyanistes caeruleus*), magpie (*Pica pica*) and jackdaw (*Corvus monedula*). The hedgerows and scrub will provide forage and shelter/nesting opportunities for a range of species.

3.15 Butterflies

3.15.1 No suitable habitat for marsh fritillary is present on site.

3.15.2 Blackthorn scrub is present at a number of locations, but is mainly too mature for brown hairstreak.

3.16 Non-native Invasive Species

3.16.1 A small amount of montbretia is present near the Parc y Delyn access spur. This is being used as a tipping area for garden waste (Fig. 10).



Fig. 10

4. ECOLOGICAL ASSESSMENTS

4.1.1 The following values have been provided to assess the importance of an ecological feature value within a geographical context, as recommended within the CIEEM Guidelines for Ecological Impact Assessment (2016) and the CIEEM Guidelines for Ecological Report Writing (Dec.2015). See Table 1 below:

4.1.2 Table 1: Ecological Value Assessments

Importance	Examples of features
International & European	European designated or proposed sites such as Ramsar Sites, Special Protection Areas, Special Areas of Conservation, World Heritage sites or Biosphere Reserves; or otherwise meeting criteria for European or International designation. Sites supporting populations of European important species. Species listed within the Annex's of The Conservation of Habitats & Species Regulations 2010
National	Nationally designated sites such as Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs), areas of key habitats and species within the UK Biodiversity Action Plan. Sites supporting viable breeding populations of Red Data Book (RDB) species (excluding scarce species), or supplying critical elements of their habitat requirements. Species listed within the schedules of the Wildlife & Countryside Act 1981.
Regional	Sites containing viable areas of threatened habitats and species listed in a regional Biodiversity Action Plan, sites exceeding Site of Importance for Nature Conservation (SINC) criteria. Sites supporting viable populations of Nationally Scarce species or those included in the Regional Biodiversity Action Plan on account of their rarity, or supplying critical elements of their habitat requirements.
High Local	Sites meeting the criteria for a county, vice county or metropolitan area designation (such as SINC), which may include amenity and educational criteria in urban areas. Ancient semi-natural woodland. Designated Local Nature Reserves. Sites containing viable areas of any key habitat type or species identified in the Local Biodiversity Action Plan (LBAP). Sites supporting viable breeding populations of species known to be county/metropolitan rarities e.g. featuring in county 'red data book' or LBAP, or supplying critical elements of their habitat requirements.
Moderate Local	Undesignated sites or features considered appreciably to enrich the habitat resource within the context of the Borough or District, or included in the Borough or District LBAP. Amenity and educational functions will be recognised in urban areas. Sites with viable breeding populations of species listed as rare in the District or Borough LBAP or supplying critical elements of their habitat requirements.
Low Local	Undesignated sites or features considered appreciably enriching the habitat resource within the context of the Parish or neighbourhood.
Negligible	Low-grade and widespread habitats.

4.1.3 Table 2: Impact level Criteria

Severe	Permanent impacts
Major	Loss of feature and/or quality and integrity of feature; severe damage to key characteristics, features or elements.
Moderate	Loss of feature, but not adversely affecting the integrity; partial loss of/damage to key characteristics, features or elements.
Minor	Some measurable change in attributes, quality or vulnerability; minor loss of, or alteration to, one (maybe more) key characteristics, features or elements
Negligible	Very minor loss or detrimental alteration to one or more characteristics, features or elements
Neutral	No impacts

4.2 Priority Habitats and Species

4.2.1 UK BAP priority habitats and species were those that were identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP). As a result of devolution, conservation action is now focused at a country-level rather than a UK-level, and the UK BAP was succeeded by the UK Post-2010 Biodiversity Framework in July 2012. The UK list of priority species, however, remains an important reference source and has been used to help draw up statutory lists of priority species and habitats in the four countries of the UK.

4.2.2 The Environment Wales Act (2016) (EWA) Section 6 places a duty on public authorities to 'seek to maintain and enhance biodiversity' and seek to 'promote the resilience of ecosystems'. The duty replaces the section 40 duty in the Natural Environment and Rural Communities Act 2006 (NERC Act 2006), in relation to Wales, and applies to those authorities that fell within the previous duty. Section 7 lists both Priority Species and Habitats of Principle Importance for the purpose of maintaining and enhancing biodiversity in relation to Wales.

4.2.3 The Carmarthenshire Local Biodiversity Action Plan (LBAP) aims to maintain and enhance biodiversity which covers a range of selected habitats and species which reflect both national and local priorities; develop effective local partnerships; monitor progress in achieving local biodiversity targets.

4.3 Assessments on the Habitats & Species Identified During the Survey

4.4. Habitats

4.4.1 Semi-improved neutral grassland

The grassland is rank and significantly diminished in area by encroaching bracken, bramble and scrub with isolated self-set trees and bushes. There are plant indicator species present that suggest with appropriate management an ecologically diverse habitat could be achieved. Similar habitat occurs within the parcel of land to the north. The value of the grassland within the development parcel has been assessed

as: **Moderate Local**. Loss of this habitat, without mitigation, is considered to be **Moderate**.

4.4.2 Bracken

Bracken can provide habitat for a number of rare invertebrates, ground nesting birds and reptiles. The stands are very dense with little ground layer, and no sign of species such as bluebell or violets. Similar stands occur within the parcel of land to the north. The value of the bracken habitat within the development parcel has been assessed as: **Low Local**. Loss of this habitat, without mitigation, is considered to be **Minor**.

4.4.3 Hedgerow and scrub

The mixture of hedgerow, scrub and trees along the southern, eastern and western boundaries provide a valuable matrix of habitats suitable for a range of species. They will provide structure for nesting birds, cover for small mammals and reptiles, flight lines for bats. Similar habitat, with the exception of mature hedgerow trees occurs within the land parcel to the north. Overall, the value of this habitat within the development parcel has been assessed as: **Moderate Local**. *Loss or damage to this habitat would be **Moderate, without mitigation**.*

4.5 Species

4.5.1 The field survey identified the on-site habitats as having the potential to support the following species which are also listed under UK BAP: Breeding Birds, Bats, Brown Hairstreak, Reptiles and Amphibians.

4.5.2 The survey concluded that the site consisted of suitable habitat which could support priority species such as bats and a range of bird species.

4.6 Ecosystem Resilience

4.6.1 Area loss can cause populations of organisms to decline due to a decrease in habitat size. The area to be developed consists of four habitat types: Semi-improved neutral grassland, Bracken, Hedgerow, Scrub. If the site is cleared without any mitigation for development the impact is expected to be **Moderate**, due to the potential loss of grassland, hedgerow and scrub.

5. CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER SURVEY

5.1 The combination of desk and field surveys undertaken at the proposed development site identified that the majority of the area within the planning site boundary has moderate ecological value. The mix of habitats present supports a diverse range of species and is likely to provide nesting opportunities for birds, cover for small mammals and invertebrates and flight lines for bats.

5.2 Grassland

- 5.2.1 The area of grassland within the development site boundary is small and is rapidly being lost to scrub and woodland. Without appropriate management its ecological value as a grassland will continue to decline.
- 5.2.2 The area of grassland to the north is outside the site boundary but within the developer's ownership. This area of grassland if appropriately managed could provide a valuable ecological resource which would off-set the loss of the small area of grassland within the development parcel.
- 5.2.3 Management of the grassland to the north would require annual cutting and removal, ideally as a hay crop, and/or grazing pressure from an appropriate stocking density of ponies or cattle.

5.3 Hedgerow & Scrub

- 5.3.1 All the boundary hedgerows should be retained to provide a buffer and connectivity to adjacent habitats. **Note that references to "hedgerow" includes a minimum 2m width of adjacent habitat.**
- 5.3.2 Sympathetic hedgerow management should be re-established, including laying/coppice management and gapping up through supplementary planting with species of local provenance
- 5.3.3 It is recommended that a native species rich hedgerow be established on the northern boundary of the site to off-set loss of trees and shrubs within the development parcel.
- 5.3.4 Any loss of dense scrub habitat should be mitigated for by suitable new planting, detailed in the landscape scheme and approved by the LA ecologist. Any new planting should be with trees and shrubs of local provenance. Landscaping should include berry bearing species such as guelder rose, rowan and purging/alder buckthorn, which will also attract brimstone butterfly.
- 5.3.5 Protection of remaining scrub and trees is recommended; the use of Root Protection Zones and appropriate working methodology as well as proximity of development boundary must be considered. Management of blackthorn scrub to provide a varied age structure could provide egg-laying sites for brown hairstreak butterfly.
- 5.3.6 Whilst the retention of grassland to the north of the development parcel is the preferred option, appropriate management in the long term to maintain and "improve" the conservation value of the grassland may not be feasible. An alternative option would be to establish a woodland/scrub habitat on this parcel of land.

5.4 Birds

- 5.3.1 All nesting birds are protected under Section 1 of the Wildlife and Countryside Act of 1981. Therefore, vegetation clearance should be planned outside the nesting bird season.

5.4 Bats

- 5.4.1 The majority of the trees on site are semi-mature and unlikely to provide roosting features. The mature sycamore and diseased ash in the southern tree-line have potential to provide bat roosting features, however none were observed in the course of the survey. The hedgerows will provide foraging opportunities and flight lines for bats and any dark corridors should be maintained as such. An appropriate lighting plan in relation to bats should take such habitat into consideration. Any mature trees which require felling or management in order to accommodate the development will be subject to inspection and assessment for suitability for use by bats, by a licenced bat surveyor following current guidelines (Bat Conservation Trust).

5.5 Dormice

- 5.5.1 The native hedgerows and areas of dense bramble scrub provide suitable, but sub-optimal habitat for dormice. However there are no records for the species in the wider area, and further survey is not considered justified. The retention and improvement of suitable habitat and connectivity as part of the scheme, together with a watching brief is recommended.

5.6 Reptiles & Amphibians

- 5.6.1 A **method statement and mitigation plan** should be prepared in order to protect reptiles and amphibians during site clearance and construction.
- 5.6.2 Opportunities exist to create suitable reptile habitat in the form of hibernacular and basking sites in the area of land to the north of the development boundary.

5.7 Invasive Non-native species

- 5.7.1 Materials brought into the site should be clean and free from INNS.

5.8 Biodiversity and Resilience of Ecosystems Duty (Section 6 Duty)

- 5.8.1 The Environment (Wales) Act 2016 introduced an enhanced biodiversity and resilience of ecosystems duty (Section 6 Duty) applicable to Local Authorities. This duty filters through to all those participating in the Planning process.

- 5.8.2 Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This means development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity.
- 5.8.3 It is therefore recommended, that in order to mitigate for loss of any scrub, new native hedgerow/planting should be incorporated into the development. However, in order to *enhance* the site for biodiversity, additional hedgerow should be planted, and it is suggested that this forms the boundary to the north.

New dwellings should include artificial habitats such as bat bricks/boxes, bird boxes/bricks or Swift/Swallow cups; the details of which should be agreed with the LA ecologist.

6. LEGISLATION

6.1 Otters and the Law.

6.1.1 The otter is a European Protected Species (EPS). It is against the law to damage or destroy an otter breeding site or resting place, or deliberately to capture, kill, injure or disturb an otter.

6.1.2 Otters are fully protected by the following pieces of legislation:

- The Conservation of Habitats and Species Regulations 2017 (regulation 42) fully protects otters, making it **an offence to:-**
 - *Intentionally or deliberately capture, injure or kill an Otter.*
 - *Damage or destroy a breeding or resting place of an Otter, or intentionally or recklessly damage or destroy any structure or place used for shelter or protection*
 - *Intentionally or recklessly disturb an Otter in a place used for shelter or protection, or deliberately disturb Otters in such a way as to be likely significantly to affect (i) the ability of any significant group of Otters to survive, breed, rear or nurture their young, or (ii) the local distribution or abundance.*
 - *Intentionally or recklessly obstruct access to a place used for shelter or protection.*
 - *Possess an Otter (alive or dead), or any part of an Otter*
- Schedule 5 of the Wildlife and Countryside Act 1981 (as amended by the CROW [Countrywide Rights of Way] Act 2000) fully protects otters, making it **an offence to:-**
 - *Intentionally or recklessly disturb any otter while it is occupying a structure or place which it uses for shelter or protection*
 - *Intentionally or recklessly obstructs access to any structure or place used by an otter for shelter or protection*
 - *Sell, offer or expose for sale any otter*

6.1.3 For any disturbance to occur a derogation or **EPS licence** must be gained from Natural Resources Wales. To gain an EPS Licence from Natural Resources Wales (NRW), NRW must be satisfied that;

- i. granting the licence would not be detrimental to the Favourable Conservation Status (fcs) of the populations of species concerned within its natural range.
- ii. the derogation (licence) is in the public interest of Health and Safety or for other reasons of over-riding public interest, including those of a socio-economic nature or will have a benefit of primary importance to the environment.
- iii. there is no satisfactory alternative to the derogation which would allow the described development to proceed but which would avoid or reduce the need for any adverse impact to the species.

6.1.4 Otters are also protected by;

- Natural Environment and Rural Communities Act 2006 and now the Environment (Wales) Act 2016.
- Annex II Habitats Directive (protection through Special Areas of Conservation)
- UK Biodiversity Action Plan Priority Species and Species of Principal Importance in Wales

6.2 Bats and the Law

6.2.1 Bats are protected by the following pieces of legislation:

- Schedule 5 and 6 of the Wildlife and Countryside Act 1981 (as amended by the CROW [Countryside Rights of Way] Act 2000)
- The Environmental Damage (Prevention & Remediation) Regulations 2009 – A protected species and its habitat is protected under this legislation as well as others.
- The Conservation of Habitats and Species Regulations 2017 (regulation 42) fully protects all bats and their roosts, making it **an offence** *to deliberately kill, injure or capture* (take) bats; *to deliberately disturb bats; damage or destroy bat roosts* or resting places (this is considered an “Absolute Offence” as damage and destruction may detrimentally effect the Continuous Ecological Functionality of that roost / resting place); possess or transport a bat or any part of a bat; sell (or offer for sale) or exchange bats or parts of bats.
- For any disturbance to occur a derogation or **EPS licence** must be gained from Natural Resources Wales. To gain an EPS Licence from Natural Resources Wales (NRW), NRW must be satisfied that;
 - i. the licence would not be detrimental to the Favourable Conservation Status (fcs) of the populations of species concerned within its natural range.
 - ii. the derogation (licence) is in the public interest of Health and Safety or for other reasons of over-riding public interest, including those of a socio-economic nature or will have a benefit of primary importance to the environment.
 - iii. there is no satisfactory alternative to the derogation which would allow the described development to proceed but which would avoid or reduce the need for any adverse impact to the species.

6.2.2 Bats are also protected by;

- Appendix III of the Bern Convention
- Appendix II of the Bonn Convention (including the Convention's Agreement on the conservation of Bats in Europe)

- Natural Environment and Rural Communities Act 2006 and now the Environment (Wales) Act 2016.
- All bats are listed in Annex IV of the EC Habitats Directive and the British species listed in Schedule 2 of the Habitats Regulations 1994 (as amended) and are therefore designated as *European Protected Species*. These *protected* species are afforded enhanced protection and more stringent licensing provisions than those protected by the Wildlife and Countryside Act (WACA) alone.

6.3 The Hazel Dormouse and the Law

6.3.1 The hazel dormouse is a European Protected Species (EPS). It is against the law to damage or destroy a dormouse breeding site or resting place (summer or hibernation nest), or deliberately to capture, kill, injure or disturb a dormouse.

6.3.2 Dormice are fully protected by the following pieces of legislation:

- The Conservation of Habitats and Species Regulations 2017 (regulation 42) fully protects dormice, making it **an offence to:-**
 - *Intentionally or deliberately capture, injure or kill a dormouse.*
 - *Damage or destroy a breeding or resting place of a dormouse, or intentionally or recklessly damage or destroy any structure or place used for shelter or protection*
 - *Intentionally or recklessly disturb a dormouse in a place used for shelter or protection, or deliberately disturb dormouse in such a way as to be likely significantly to affect (i) the ability to survive, breed, rear or nurture their young, and includes in the case of animals of a hibernating or migratory species, to hibernate or migrate or (ii) the local distribution or abundance.*
 - *Intentionally or recklessly obstruct access to a place used for shelter or protection.*
 - *Possess a dormouse (alive or dead), or any part of a dormouse*
- Schedule 5 of the Wildlife and Countryside Act 1981 (as amended by the CROW [Countryside Rights of Way] Act 2000) fully protects dormice, making it **an offence to:-**
 - *Intentionally or recklessly disturb any dormouse while it is occupying a structure or place which it uses for shelter or protection*
 - *Intentionally or recklessly obstructs access to any structure or place used by a dormouse for shelter or protection*
 - *Sell, offer or expose for sale any dormouse*

6.3.3 For any disturbance to occur a derogation or **EPS licence** must be gained from Natural Resources Wales. To gain an EPS Licence from Natural Resources Wales (NRW), NRW must be satisfied that;

- i. granting the licence would not be detrimental to the Favourable Conservation Status (fcs) of the populations of species concerned within its natural range.
- ii. the derogation (licence) is in the public interest of Health and Safety or for other reasons of over-riding public interest, including those of a socio-economic nature or will have a benefit of primary importance to the environment.
- iii. there is no satisfactory alternative to the derogation which would allow the described development to proceed but which would avoid or reduce the need for any adverse impact to the species.

6.3.4 Dormice are also protected by;

- Natural Environment and Rural Communities Act 2006 (England) and the Environment (Wales) Act 2016.
- Annex II Habitats Directive (protection through Special Areas of Conservation)
- UK Biodiversity Action Plan Priority Species and Species of Principal Importance in Wales

6.4 Reptiles and the Law

- 6.4.1 All of the UK native reptiles are protected by law. The common species of reptiles found in this locality are common lizard, slow-worm, adder and grass snake. It is illegal to intentionally kill or injure these species under Section 9 (1) of the Wildlife and Countryside Act 1981 (as amended).
- 6.4.2 All native UK reptiles are considered of 'principle importance' under Section 7 of the Environment (Wales) Act 2016. This places a duty on every public authority, in exercising its functions, to have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.
- 6.4.3 Under the National Planning Policy Framework (NPPF April 2012), the presence of any Protected Species (which includes all reptiles species) are a material planning consideration. The ODPM 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact within the Planning System, provide additional advice and support the NPPF.

6.5 Amphibians and the Law

- 6.5.1 All of the UK native amphibians are protected by law. The common species of amphibians in this locality are common frog, common toad, smooth newt and palmate newt. It is illegal to intentionally kill or injure these species under Section 9 (1) of the Wildlife and Countryside Act 1981 (as amended).
- 6.5.2 The common toad is considered of 'principle importance' under Section 7 of the Environment (Wales) Act 2016. This places a duty on every public authority, in

exercising its functions, to have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.

- 6.5.3 Under the National Planning Policy Framework (NPPF April 2012), the presence of any Protected Species (which includes the Common Toad) are a material planning consideration. The ODPM 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact within the Planning System, provide additional advice and support the NPPF.

6.6 Birds and the Law

- 6.6.1 All species of bird are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended). Protection was extended by the Countryside and Rights of Way (CRoW) Act 2000. Under the above legislation it is an offence to intentionally:

- kill, injure or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use or being built; or
- take or destroy an egg of any wild bird.

- 6.6.2 Certain species are listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and receive protection under Sections 1(4) and 1(5). The protection was extended by the Countryside and Rights of Way (CRoW) Act 2000. There are special penalties where the offences listed above are committed for any Schedule 1 species and it is also an offence to intentionally or recklessly:

- disturb any such bird when it is building its nest or while it is in or near a nest containing dependant young; or
- disturb the dependant young of any such bird.

6.7 Badgers and the Law

- 6.7.1 The protection of Badgers Act 1992 makes it illegal to kill, injure or take a badger, or interfere with a sett. In addition, they are listed on Schedule 6 of the Wildlife & Countryside Act 1981, which prohibits certain methods of killing and capture.

6.8 Water Voles and the Law

- 6.8.1 Water voles are listed under Schedule 5 of the Wildlife & Countryside Act 1981, receiving full protection since 2008. The Wildlife & Countryside Act 1981 (as amended), lists the following offences:-

- Intentionally kill, injure or take water voles (Section 9 (1)).
- Possess or control live or dead water voles or derivatives (Section 9 (2)).

- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection (Section 9 (4) (a & c)).
- Intentionally or recklessly disturb water voles whilst occupying a structure or place used for that purpose (Section 9 (4) (b)).
- Sell water voles or offer or expose for sale or transport for sale (Section 9 (5)).
- Publish or cause to be published any advertisement which conveys the buying or selling of water voles (Section 9 (5)).

6.9 Environment Act (Wales) 2016

- 6.9.1 This act has replaced the section 40 duty in the Natural Environment and Rural Communities Act 2006 (NERC Act 2006), in relation to Wales, and applies to those authorities that fell within the previous duty. It came into force in May 2016.
- 6.9.2 Section 6 of the Act places a duty on public authorities to 'seek to maintain and enhance biodiversity' so far as it is consistent with the proper exercise of those functions. In so doing, public authorities must also seek to 'promote the resilience of ecosystems'. Under Section 6 public authorities will be required to report on the actions they are taking to improve biodiversity and promote ecosystem resilience.
- 6.9.3 Section 7 of the Act places a duty on public authorities to take steps to maintain and enhance biodiversity. This section replaces the duty in section 42 of the NERC Act 2006. The Section 7 Priority Species under this act is a list of the living organisms of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales. The Section 7 Priority Habitats is a list of the habitats of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales.

7. REFERENCES

Amphibian & Reptile Conservation UK (Sept. 2010) *Legislative Protection for Herpetofauna (England & Wales)*

British Standard (2005) *Trees in relation to construction – recommendations BS 5837:2005*

Crown copyright (1992) *Protection of Badgers Act 1992*

CIEEM (2015) *Guidelines for Ecological Report Writing*, Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2016) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, 2nd edition*. Chartered Institute of Ecology and Environmental Management, Winchester

DEFRA (2007) *Hedgerow Survey Handbook A standard procedure for local surveys in the UK*

English Nature (2002) *Badgers & Development*, English Nature.

Environment & Heritage Service (2004) *Badgers & Development*, Environment & Heritage Service Publishing Unit.

Hundt L (2012) *Bat Surveys, Good Practice Guidelines*, Bat Conservation Trust.

JNCC (2004) *National Vegetation Classification, Field Guide to Woodland*, Joint Nature Conservation Committee.

National Federation of Badger Groups (2005) *Badgers and the Law*, NFBG
www.badger.org.uk/action/index.html

Poland. J & Clement. E (2009) *The Vegetative Key to the British Flora*, BSBI.

Rose, F. (2006) *The Wildflower Key (2nd end.)*, Penguin London.

Wales Biodiversity Partnership (2016) *Environment Act (Wales)*.

Welsh Assembly Government (WAG 2016). Environment (Wales) Act 2016 Section 7 – list of the living organisms of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales. Welsh Government, Cardiff.

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We confirm that in preparing this Report we have exercised reasonable skill and care, taking into account the project objectives, the agreed scope of the work and prevailing site conditions.

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9. Representative Species List

	Target Note				
	1	3	4	6	7
Common bent <i>Agrostis capillaris</i>		F	O		
Creeping Bent <i>A stolonifera</i>		F	O		
Cock's foot <i>Dactylis glomerata</i>		A	F		F
False oat grass <i>Arrhenatherum elatius</i>		A	D		F
Fescue Red fescue <i>Festuca rubra</i>		F	F		
Holcus Yorkshire fog <i>H. lanatus</i>		D	F		
Meadow foxtail <i>Alopercus pratensis</i>		F	O		
Sweet vernal grass <i>Anthoxanthum odoratum</i>		F	F		
Angelica <i>Angelica archangelica</i>		F	O		
Bindweed <i>Convolvulus arvensis</i>	O	F			
Birds foot trefoil <i>Lotus corniculatus</i>		O	O		
Bluebell <i>Hyacinthoides non-scripta</i>					O
Creeping buttercup <i>Ranunculus repens</i>		A			
Cleavers <i>Galium aparine</i>	F	F			
Cow parsley <i>Anthriscus sylvestris</i>				O	F
Cut leaved cranesbill <i>Geranium dissectum</i>		R			
Broad leaved dock <i>Rumex obtusifolius</i>		O			
Clustered dock <i>R conglomeratus</i>			O		O
Curled dock <i>R crispus</i>		O	O		
Enchanter's nightshade <i>Circaea lutetiana</i>					O
Figwort <i>Scrophularia nodosa</i>					O
Common fleabane <i>Pulicaria dysenterica</i>		R			
Foxglove <i>Digitalis purpurea</i>					R
Ground elder <i>Aegopodium podagraria</i>	O				
Ground ivy <i>Glechoma hederacea</i>	R				
Hedge woundwort <i>Stachys sylvatica</i>		R	O		O
Herb Robert <i>Geranium robertianum</i>	O				

Hogweed <i>Heracleum sphondylium</i>		F		O	
Honeysuckle <i>Lonicera periclymenum</i>					O
Ivy <i>Hedera helix</i>	F				F
Ivy leaved toadflax <i>Cymbalaria muralis</i>				D	
Common knapweed <i>Centaurea nigra</i>		O	R		
Montbretia <i>Crocsmia</i>	R				
Nettle <i>Urtica dioica</i>	A	F	R	O	F
Nipplewort <i>Lapsana communis</i>					O
Ragwort <i>Jacobaea vulgaris</i>		F	R		
Ribwort Plantain <i>Plantago lanceolata</i>		F	O		O
Red campion <i>Silene dioica</i>					O
Lesser stitchwort <i>Stellaria graminea</i>		F			
Germander speedwell <i>Veronica chamaedrys</i>		O	F		A
Creeping thistle <i>Cirsium arvense</i>		F	O		
Spear thistle <i>Cirsium vulgare</i>		R			
Tufted vetch <i>Vicia cracca</i>		R	R		
Wallpenny <i>Umbilicus rupestris</i>					A
Broad leaved willowherb <i>Epilobium montanum</i>			O		
Rose-bay willowherb <i>Chamerion angustifolium</i>	F				O
Square stalked willowherb <i>E. tetragonum</i>		R	R		
Wood Avens <i>Geum urbanum</i>	F				O
Wood sage					O
Yarrow <i>Achillea millefolium</i>		R	O		
Apple <i>Malus sp.</i>	R				
Ash <i>Fraxinus excelsior</i>	O			O	O
Blackthorn <i>Prunus spinose</i>	O				D
Box <i>Buxus sempervirens</i>				R	
Bramble <i>Rubus fruticosus agg</i>	D				A
Dogwood <i>Cornus sanguinea</i>	R			R	
Elder <i>Sambucus nigra</i>	R				
Hazel <i>Corylus avellana</i>	O			A	F

Hawthorn <i>Crataegus monogyna</i>	O			F	
Holly <i>Ilex aquifolium</i>				A	
Pendunculate oak <i>Quercus robur</i>	O	O	O		A
Privet					O
Sycamore <i>Acer pseudoplatanus</i>	R	R		F	O
Wych elm <i>Ulmus glabra</i>				F	
Dog rose <i>Rosa canina</i>					O
Nutmeg bush	R				
Bracken <i>Pteridium aquilinum</i>	F				F
Broad buckler fern <i>Dryopteris dilatata</i>	O			R	
Hart's tongue fern <i>Asplenium scolopendrium</i>	O			O	F
Lady Fern <i>Athyrium filix femina</i>		R	F		
Male Fern <i>Dryopteris Felix-mas</i>	R	R	F		O
Soft shield fern <i>Polystichum setiferum</i>	R				
Rough stalked feather moss <i>Brachythecium rutabulum</i>	R				

10. WWBIC Data Search

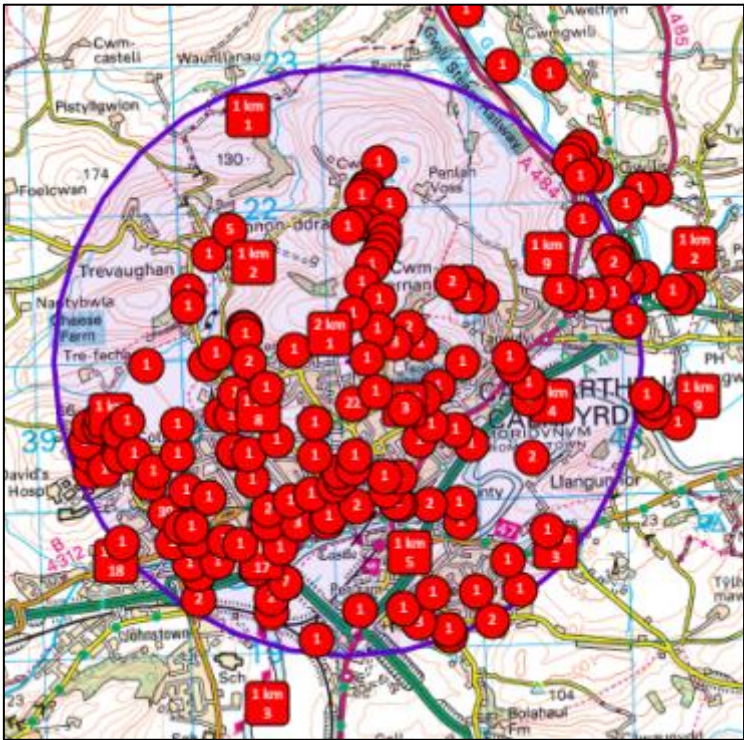
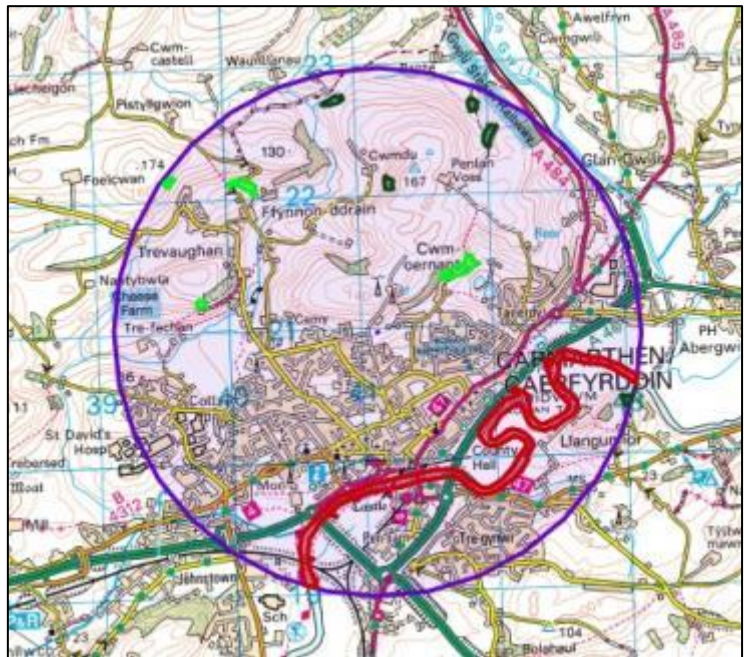


Fig. 11. Protected Species Data Search 30th June 2020



Site Type	Key	Number of sites	Category	Intersection Area	Percentage of search area	Display
Special Area of Conservation		1	International - Statutory	288,634 m ²	2.31%	☒
Site of Special Scientific Interest		1	National - Statutory	288,634 m ²	2.31%	☒
Ancient Semi Natural Woodland		7	Priority Area	29,251 m ²	0.23%	☒
Restored Ancient Woodland Site		5	Priority Area	33,885 m ²	0.27%	☒

Fig. 12. Protected Sites & Priority Areas Data Search 30th June 2020

Fig. 13 Phase 1 Habitat Plan.

Colour	Code	Description
 SI	B2.2	Semi-improved neutral grassland
	A2.1	Blackthorn Scrub
	A2.1	Bramble scrub
	J3.1	Hedgerow / Tree line
	C1.1	Bracken

Phase 1 Habitat Code Key:

