

**LAND OFF LLYS GWYNANT, BRYN Y
BAAL, FLINTSHIRE**

EXTENDED PHASE 1 HABITAT SURVEY

REVISED JULY 2018



ces ecology
consultant ecologists

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EXECUTIVE SUMMARY

- Cheshire Ecological Services Ltd. (CES) was commissioned to conduct an Extended Phase 1 Habitat Survey of Land off Llys Gwynant, Bryn y Baal, where residential development is proposed.
- The purpose of the survey was to gain baseline ecological information of the site in order to assess its current status, to identify any ecological constraints to development that may currently be associated with the development areas and/or the surrounding land, and to recommend further survey if necessary.
- The proposed development site totals approximately 2.9 hectares and is bounded by farmland to the north and residential development to the south.
- At the time of survey the site was comprised of a grassland field predominantly of a poor-semi improved quality, a horse ménage, and a number of equine buildings and sheds. The site is bounded on three aspects by hedgerows with mature trees, all of which may qualify as 'Important' under the Hedgerow Regulations, 1997.
- Buckley Claypits and Commons SSSI and Deeside & Buckley Newt Sites SAC is located approximately 885m east of the site and is designated (in part) for its populations of great crested newt. The proposed development will not have any direct impact on this nationally and internationally important site and there will be no habitat losses as a result of it. However, parts of the SSSI and SAC are open to the public and there is a possibility that the sites will experience increased footfall as a result of the occupation of the new development.
- The proposed site layout plan indicates that it may be necessary to remove approximately 80m of hedgerow to facilitate the development. The hedgerow in question is species-rich and is considered likely to qualify as 'Important' under the Hedgerow Regulations, 1997. The local planning authority may therefore require a detailed hedgerow assessment to be first undertaken to ascertain its status in relation to the Regulations before any removal may be consented.
- Similarly, bat activity surveys may be required to establish the impacts of hedgerow removal on bats. Avoidance measures for the protection of nesting birds and hedgehog are recommended. Reptiles are considered likely to be absent from the site, however, scheduled vegetation reduction works of a small area of suitable habitat is recommended as a precautionary measure.
- All on-site buildings are of Negligible suitability for roosting bats, and great crested newts are predicted to be absent from the site. No badger setts were identified on site.
- Consideration should be given to using wildlife-sensitive lighting adjacent to the retained hedgerows to minimise effects on bats and other species of wildlife. If any mature trees are subsequently proposed to be remove or de-limbed, then they should first be surveyed from the ground by a suitably experienced ecologist, ideally when they are not in leaf. If this is not possible, the trees may have to be climbed to check for potential roost features.

1.0 INTRODUCTION

- 1.1 Cheshire Ecological Services Ltd. (CES), the consultancy arm of Cheshire Wildlife Trust, to which all profits are covenanted, was commissioned to conduct an Extended Phase 1 Habitat Survey of Land off Llys Gwynant, Bryn y Baal, Flintshire, where residential development is proposed.
- 1.2 The purpose of this survey was to gain up to date baseline ecological information of the site in order to assess its current status, to identify any ecological constraints to development that may currently be associated with the development area and/or the surrounding land, and to recommend further survey if necessary.
- 1.3 The survey was conducted by Matthew Lawton BSc (Hons) ACIEEM and Fiona Wood BSc (Hons) on 26th June 2018.
- 1.4 Weather conditions at the time of survey were sunny with a temperature of 28°C.

2.0 SITE DESCRIPTION

- 2.1 The survey was centred on the following OS grid reference: SJ 26065 64869.
- 2.2 The area of land requested to be surveyed totals approximately 2.9 hectares, and is hereafter referred to as 'the site'. The site is located within Bryn y Baal, to the north of the village of Myndd Isa, Flintshire.
- 2.3 At the time of the survey the site was comprised predominantly of a poor-semi improved grassland field, with some areas of semi-improved grassland, tall ruderal vegetation and bracken, a horse ménage and a number of buildings, sheds and shipping containers.
- 2.4 Land use in the wider area comprised residential development and mixed-use farmland (refer to Appendix A - Site Location Plan).
- 2.5 The site was bounded to the north-east and north-west by pastoral farmland, and to the south-east and south-west by residential development.

3.0 SURVEY METHODS

Desk-based study

- 3.1 The desk-based study comprised consultation with the following consultees:
 - Cofnod - the local biological records centre for North Wales
 - Ordnance Survey – OS mapping of the local and wider area
 - Magic - Mapping of nationally designated nature conservation sites

- 3.2 Cofnod was asked to provide information on statutory and non-statutory nature conservation sites and protected and Priority species within 1km of the centre of the site, within the past 20 years.
- 3.3 Ordnance Survey mapping of the local area was reviewed to search for the presence of habitats and features of potential ecological relevance to this survey, such as ponds.
- 3.4 Defra's interactive map 'Magic' was used to search for nationally designated nature conservation sites within 1km of the site.

Extended Phase 1 Habitat Survey

- 3.5 This survey involved the mapping of various habitat types on the site in addition to any habitat features and botanical species of conservation importance. A thorough walk-over survey was undertaken of the site. The methodology for this survey followed that described by the Joint Nature Conservation Committee (JNCC, 2010).
- 3.6 'Priority' habitats and species, for which there is a national or local Biodiversity Action Plan (BAP) and those listed under Section 7 list of the Environment (Wales) Act 2016, were recorded as such where present. Priority species and habitats are a material consideration for planning.
- 3.7 Preliminary searches were also carried out for protected and Priority species such as badgers, bats, reptiles and great crested newts (GCN) that may potentially use the site.
- 3.8 Scientific names and the national status of vegetative species recorded follow Stace (1997). Scientific and common names stated in the text are also presented in Appendix C.
- 3.9 The abundance of all recorded botanical species identified in potential Priority habitats was assessed using the DAFOR scale, as described by Sutherland (1996). The DAFOR scale is a broad interpretive assessment whereby the surveyor assigns one of the following categories to the abundance of the species; Dominant, Abundant, Frequent, Occasional or Rare.
- 3.10 All trees and/or buildings with features such as holes, cracks and crevices were assessed for their suitability to support roosting bats, and were categorised in accordance with the Bat Conservation Trust's (BCT) Bat Survey Good Practice Guidelines (2016) 3rd Edition. The guidelines outline the initial survey requirements of all trees and buildings, and where necessary, detail the required further actions and likely mitigation. Trees and buildings were allocated the following categories (based on an assessment of potential roost features when viewed from the ground):

High Suitability – Trees and buildings with one or more obviously suitable features capable of supporting larger roosts on a more regular basis and potential for longer periods of time.

Moderate Suitability – Trees and buildings with one or more potential roost sites considered unlikely to support a large roost.

Low Suitability - Trees with no obvious potential, although the tree is of a size and age that elevated surveys may result in cracks or crevices being found; or the tree supports some features which may have limited potential to support bats. Alternatively, a structure with one or more potential roost sites likely to support individual bats opportunistically i.e. unlikely to be suitable for maternity or hibernation roosts.

Negligible Suitability - Trees and buildings with no potential to support bats.

Survey Limitations

- 3.11 The observations made during this survey have been used to assess the presence, or potential presence, of protected and Priority species within the proposed area of works and to recommend further actions where required. It should however be noted that this survey serves as a single visit representing a 'snap-shot in time' whereby only the species present at the time of survey were recorded.
- 3.12 Positive evidence of species that use this site periodically or are in growth at different times of the year may not have been recorded. It is important to consider that the absence of a species from a particular survey does not necessarily indicate the absence (or continued absence) of that species from the area.
- 3.13 Areas of the site beneath hedgerows, particularly in the northern corner of the site, were inaccessible due to the vegetation being dense and impenetrable. It is possible that field signs of species such as badger, and the presence of botanical species not recorded elsewhere within the site, were present here but not identified.

4.0 RESULTS

Desk-based Study

- 4.1 Defra's online facility 'Magic' indicates that there is one statutorily designated nature conservation site within 1km of the site; Buckley Claypits and Commons SSSI lies approximately 885 m east of the site at its nearest point, while Maes Y Grug Site of Special Scientific Interest (SSSI) lies approximately 1,014m north of the site at its nearest point. Both SSSIs are components of the Deeside & Buckley Newt Sites Special Area of Conservation (SAC). Buckley Claypits and Commons has an area of approximately 99.8 hectares and Maes Y Grug an area of approximately 17.3 hectares. The total area of Deeside & Buckley Newt Sites is approximately 206 hectares.
- 4.2 Buckley Claypits and Commons is comprised of an area with ponds and adjacent terrestrial habitat and is host to a large great crested newt population. Several of the ponds were created as mitigation receptor ponds. In excess of 2600 great crested newts were translocated into the area now protected as a SSSI.

- 4.3 Maes Y Grug is a former mineral extraction site that was restored with a number of wetland features and subsequently colonised by great crested newt.
- 4.4 Cofnod indicates the presence of Coed Argoed Wildlife Site approximately 440m to the south-west of the site. This Wildlife Site of 4.1 hectares is a broad-leaved woodland dominated by sycamore and sessile oak. Species such as bluebell, wood anemone, lesser celandine, wood avens, woodruff, pignut and yellow archangel are found amongst the ground flora.
- 4.5 The Regionally Important Geodiversity Site (RIGS) Bryn y Baal Quarry is located approximately 113m to the south-west of the site. This site of 0.4 hectares was selected for its scientific and educational value with strata present in the coal measures.
- 4.6 Cofnod highlighted the presence of the following protected and Priority species occurring within approximately 1km of the proposed development site since 1998:

Scientific name	Common name	Designations
<i>Aegithalos caudatus</i>	Long-tailed Tit	WBA
<i>Anguis fragilis</i>	Slow-worm	Bern, S7, WCA5, LBAP
<i>Apus apus</i>	Swift	UKBA, WBA
<i>Bufo bufo</i>	Common Toad	Bern, S7, WCA5, LBAP
<i>Coenonympha pamphilus</i>	Small Heath	RD1(UK)NT, S7,
<i>Delichon urbicum</i>	House Martin	Bern, UKBA, WBA
<i>Erinaceus europaeus</i>	Hedgehog	Bern, S7, LBAP
<i>Falco tinnunculus</i>	Kestrel	Bern, CITES, S7, UKBA, WBR, LBAP
<i>Fringilla montifringilla</i>	Brambling	WCA1.1
<i>Hirundo rustica</i>	Swallow	Bern, WBA
<i>Lepus europaeus</i>	Hare	S7, LBAP
<i>Lissotriton helveticus</i>	Palmate Newt	Bern, WCA5, LBAP
<i>Lissotriton vulgaris</i>	Smooth Newt	Bern, WCA5, LBAP
<i>Meles meles</i>	Badger	Bern, PBA, LBAP
<i>Muscicapa striata</i>	Spotted Flycatcher	Bern, S7, UKBR, WBR, LBAP
<i>Natrix helvetica</i>	Grass Snake	Bern, S7, WCA5, LBAP
<i>Necropsis cambrica</i>	Welsh Poppy	RD2(UK)NS, RD2(UK)S
<i>Passer domesticus</i>	House Sparrow	S7, UKBR, WBA, LBAP
<i>Periparus ater</i>	Coal Tit	Bern, WBA,
<i>Phoenicurus phoenicurus</i>	Redstart	Bern, UKBA, WBA,
<i>Phylloscopus trochilus</i>	Willow Warbler	UKBA, WBR
<i>Pipistrellus pipistrellus</i>	Common Pipistrelle	Bern, Bonn, EPS, HDir, RD2(UK), S7, WCA5, LBAP
<i>Prunella modularis</i>	Dunnock	BAP, Bern, S7, UKBA
<i>Pyrrhula pyrrhula</i>	Bullfinch	BAP, S7, UKBA, WBR, LBAP
<i>Rana temporaria</i>	Common Frog	Bern, HDir, WCA5, LBAP
<i>Sturnus vulgaris</i>	Starling	BAP, BDir2.2, Bern, S7, UKBR, WBR, LBAP
<i>Triturus cristatus</i>	Great Crested Newt	Bern, EPS, HDir, RD2(UK), S7, WCA5, LBAP
<i>Turdus iliacus</i>	Redwing	BDir2.2, UKBR, WBA, WCA1.1
<i>Turdus philomelos</i>	Song Thrush	BAP, BDir2.2, Bern, S7, UKBR, WBA, LBAP

<i>Turdus pilaris</i>	Fieldfare	BDir2.2, UKBR, WBA, WCA1.1,
<i>Vanellus vanellus</i>	Lapwing	BDir2.2, S7, UKBR, WBR, LBAP
<i>Zootoca vivipara</i>	Common Lizard	Bern, S7, WCA5, LBAP

Note: All species names and designations provided by Cofnod.

Designations key:

UKBR - RSPB UK Birds Red List (not based on IUCN criteria)
WBR - RSPB Welsh Birds Red List (not based on IUCN criteria)
LBAP - Local Biodiversity Action Plan species for Denbighshire
WBA - RSPB Welsh Birds Amber List (not based on IUCN criteria)
RD1(UK) - Red Data Book listing for the UK based on IUCN guidelines
RD2(UK) - Red Data Book listing for the UK not based on IUCN guidelines
INNS - Invasive Non-native Species
WCA1.1 - Wildlife & Countryside Act 1981 Schedule 1.1 (Birds which are protected at all times)
WCA5 - Wildlife & Countryside Act 1981 Schedule 5
WCA8 - Wildlife & Countryside Act 1981 Schedule 8
Bern - Bern Convention on the Conservation of European Wildlife and Natural Habitats
UKBA - RSPB UK Birds Amber List (not based on IUCN criteria)
CITES - Convention on International Trade in Endangered Species of Wild Fauna and Flora
Bern - Bern Convention on the Conservation of European Wildlife and Natural Habitats
PBA - Protection of Badgers Act 1992

- 4.7 A number of other species records were provided but have not been included in this report as it is considered highly unlikely that they would be associated with the site. For example, records for mallard, cormorant and black-headed gull were provided. Given the habitat composition of the site and the nature of the proposed works, it is considered highly unlikely that the proposed development would impact upon such species.
- 4.8 Cofnod highlighted the presence of Deciduous Woodland BAP Priority habitat located within 1km of the site (refer to Appendix A: Site Location Plan).

Fieldwork

- 4.9 Features of interest recorded on the site during this survey are described in the Target Notes (TN) below. All numbered Target Notes correspond with the Phase 1 Habitat Maps (Appendix B). Species lists for each area and photographic plates are presented within Appendices C and D respectively.

Target Notes

TN1 – Buildings- negligible potential to support bat roosting (Plates 1a, 1b, 5a, 12a, 12b, 13a, 13b, 14a,14b)

TN2 – Hedgerows - potentially Important under the Hedgerow Regulations 1997 (Plates 7a, 7b, 8a, 8b, 16)

5.0 DISCUSSION

Designated Sites

- 5.1 Magic indicates that the closest statutorily designated nature conservation site is, collectively, Buckley Claypits and Commons SSSI and Deeside & Buckley Newt Sites SAC, which is located approximately 885m east of the site beyond mixed-use farmland (refer to Appendix A). Based on the terrestrial range of individual great crested newts (generally <250 metres, occasionally >500 metres, rarely >1 kilometre from their breeding site), it is considered highly unlikely that any GCN from this internationally important site would include the proposed development site within their terrestrial range. The proposed development will not have any direct impact on this important site and there will be no habitat loss as a result of the development.
- 5.2 Parts of the SSSI and SAC are open to the public and there is however a possibility that these sites will experience increased footfall and recreational pressures as a result of occupation of the new development.
- 5.3 Cofnod indicated that closest non-statutorily designated nature conservation site is Coed Argoed Wildlife Site, which is located approximately 440m to the south west of the site. Habitat connectivity between the site and Coed Argoed is poor with residential housing occupying much of the area between. Bryn y Baal Quarry, the closest non-statutorily designated RIGS site, lies 113m to the south west of the site. The proposed development will not affect the geological interest of Bryn y Baal Quarry with houses already present between the quarry and the site. It is therefore considered unlikely that these two non-statutorily designated sites will be affected by the development.

Habitats

5.4 Poor semi-improved grassland (Plates 2a, 2b)

The grassland field totalled approximately 2.26 hectares, and habitat type was categorised as predominantly 'poor semi-improved'. Species such as perennial ryegrass, meadow foxtail, sweet vernal grass, meadow buttercup, white clover, red clover and ribwort plantain were present. Forb species were generally at low frequency within the sward.

Increased diversity was evident in the field margins, with species such as selfheal, meadow vetchling, yellow rattle and common knapweed present in low abundances. The grassland had not recently been mown or grazed at the time of survey. An area of grassland was of sufficient diversity to be categorised (and therefore mapped) as semi-improved, which was present in the north-west of the field and covered an area of approximately 0.05Ha (refer to Appendix B). Here, meadow vetchling and tufted vetch red clover, common sorrel, meadow buttercup and ribwort plantain were also present.

The proposed site layout plan indicates that all areas of the grassland field will be developed (refer to Appendix E).

5.5 Tall ruderal vegetation (Plates 3a, 3b, 5a, 6a, 7a, 8a, 14b, 15a)

Tall ruderal vegetation was present around the field margins and it consisted of species such as nettle and broad-leaved dock.

Tall ruderal vegetation also dominated an area of land to the south of the site, where chicken coops, disused farm machinery and an allotment was present. The proposed site plan indicates that this area is to be lost to the development.

5.6 Bracken scrub (Plate 5b)

A relatively small area of bracken scrub was located to the west of the site. This area is likely to be of limited ecological interest and will be lost to the development.

5.7 Hardstanding (Plate 10a, 10b, 11a, 11b, 12a, 13b, 14a, 15b)

A horse ménage of approximately 0.15 hectares was located in the east of the site. The surfacing was of sand/grit. Other areas of hardstanding include a trackway associated with the buildings to the south east of the site. These areas of hardstanding are of low-negligible ecological value.

5.8 Scattered trees (Plates 9a, 9b, 10a, 10b, 11a, 13b, 15b)

Scattered immature trees with some younger saplings were present along the north-western and south-western boundaries of the ménage. Species included leylandii, goat willow, ash and rowan. These trees are of limited ecological value due to their relative immaturity. The proposed development layout plan indicates that these trees will be lost to the development.

5.9 Buildings

Several buildings were located within the site:

Building B1 (Plates 1a, 1b): Three metal storage units including shipping containers were located to the west of the entrance from Issa Farm. Two of these units were sealed and one open fronted.

B2 (Plate 5a): A corrugated metal shed with open front.

B3 (Plate 14b): An assortment of wooden chicken sheds.

B4 (Plate 13a): An open-fronted metal barn with metal storage container to rear.

B5 (Plate 14a) An open-fronted stable of wooden construction.

B6 (Plates 12a and 12b) A stable unit of wooden construction with open frontage on both sides.

B7 (Plate 13b) A metal barn with open frontage.

All buildings appeared to be single-skinned and without any voids, such as loft spaces.

5.10 Hedgerows

Three hedgerows were identified on site. Hedgerows which meet certain criteria are protected by *The Hedgerow Regulations, 1997*. Under the Regulations it is against the law to remove or destroy 'Important' hedgerows without permission from the local planning authority. Removal of a hedgerow in contravention of the Regulations is a criminal offence. The criteria used to assess such hedgerows relate to the value of a hedgerow from an archaeological, historical, landscape or wildlife perspective. They exclude hedgerows that have been in existence for less than 30 years, garden hedges and some hedgerows which are less than 20 metres in length. The aim of the Regulations is to protect 'Important' hedgerows in the countryside by controlling their removal through a system of notification.

All hedgerows consisting predominantly (i.e. 80% or more) of at least one woody UK native species qualify as UK Biodiversity Action Plan Priority habitat, and as such are a material consideration for planning.

The hedgerows identified on site are described below:

Hedgerow 1 (H1, Plates 3a, 3b, 4, 6a, 6b): A defunct hedgerow of approximately 155m in length with mature oak trees along the southern third. The hedgerow backed on to residential properties, where the shrubby components had been subject to recent cutting/trimming. A gappy section was present in the north where bracken replaced woody species. Seven native woody species were recorded in total.

Hedgerow 2 (H2, Plates 7a, 7b): An intact, unmanaged and species-rich hedge of approximately 180m with several mature oak trees. A gap was present but the tree canopy of the hedge remained closed; making it 'intact'. A dry ditch ran alongside the hedge. Eight native woody species were recorded in total.

Hedgerow 3 (H3, Plates 8a, 8b, 10a, 11b, 16): Measuring approximately 177m this hedgerow was intact, species-rich and unmanaged for most of its length. A dry ditch ran also ran along the hedge. The hedgerow was wide, particularly in the area adjacent to the ménage. Nine native woody species were recorded in total.

All on-site hedgerows contain a sufficient number of native woody species to potentially qualify as Important under the wildlife and landscape criteria of *the Hedgerow Regulations 1997*. Associated features, such as the presence of mature trees and associated dry ditches, also contribute towards their likely qualification. However, assessment against the Regulations requires detailed survey of certain sections of the hedgerow to record the number of native woody species over a given area. This survey does not constitute such assessment.

The site layout plan (refer to Appendix E) indicates the retention in full of Hedgerows 1 & 2, and the loss of approximately half of Hedgerow 3 to facilitate the development. The local planning authority may therefore require a detailed hedgerow assessment to be undertaken of Hedgerow 3 to ascertain its status in relation to the *Hedgerow Regulations 1997* before it may consent the removal of any sections of it or its associated features. Retention of Hedgerow 3 would likely negate the need for such assessment.

All retained hedgerows and the mature trees they contain should be sufficiently protected throughout the development. Protective fencing should be provided to demark appropriate root protection zones, as will be established by the supporting arboriculture survey report.

Features of Ecological Interest

5.11 The following features of 'ecological interest' were identified during the survey:

- Species-rich hedgerows (H 1-3) and the mature oak trees they contain, with potential to qualify as Important under *the Hedgerow Regulations 1997*.

5.12 The habitat composition of the site has potential to support legally protected and Priority wildlife species. It was not within the scope of this survey to carry out detailed searches for protected species, although the potential for the site to support the following species is discussed below:

- Badger
- Barn owl
- Bats
- Birds
- Brown Hare
- Butterflies
- Hedgehog
- Great crested newt and other amphibians
- Reptiles

Legislation relating to each species discussed in this report is presented in Appendix F – Legislation. No other legally protected species are considered likely to be associated with the proposed development site due to a lack of suitable habitat on, and surrounding the site.

5.13 Badgers

Badgers and their setts are protected under British law. Therefore surveys are required to check for the presence of badgers or their setts if they are likely to be disturbed for any reason. Statutory guidance indicates that a licence may be required if potentially disturbing works are to take place within 30m of a badger sett.

Cofnod provided details of badgers occurring within 1km of the proposed development site since 1998.

No evidence of badgers, such as dung pits, snuffle holes, pathways or setts were recorded during the survey. The grassland on site offers suitable commuting and foraging habitat for badger, and it is therefore possible that this species frequents the site. With due regard to the limitations of the survey, i.e. dense vegetation prevented thorough inspections of the hedgerow bases from being made, it is possible that setts could have potentially been present in these areas. However, badger field signs are usually prevent/obvious within close proximity of active badger setts, and the likely absence of badger setts on and within 30m of the site is therefore concluded.

Nevertheless, if the development timeframe permits, it would be pertinent to undertake a site inspection during the winter months when vegetation is not in growth, or alternatively a pre-commencement check if site clearance starts before November 2018. If any badger setts are subsequently found to be present on or within 30m of the working areas, a mitigation strategy for badgers will likely be required.

5.14 Barn owl

Barn owls receive special protection under Schedule 1 of the Wildlife & Countryside Act, 1981 (as amended). In addition to the protection afforded to all wild birds under Section 1 of the Act, species listed on Schedule 1 also receive special legal protection when breeding; making it an offence to intentionally or recklessly disturb any wild barn owl whilst it is at or near a nest containing eggs or young, or disturb the dependent young of such a bird. Barn owls nest and roost in buildings and within deep cavities in trees, and will readily utilise nest boxes where available.

The Cofnod data-search did not return any records of barn owl since 1998.

All on-site buildings were of low/negligible suitability to support barn owl nesting or roosting, and no evidence of this species was recorded anywhere within the site. Barn owl may however use the site for foraging, particularly whilst vegetation is tall and of increased suitability for their small mammal prey.

The site layout plan indicates the retention of all on-site mature trees. As part of the survey, these trees were subject to a ground-based inspection to search for the potential presence of holes that may be of sufficient size to support barn owl roosting or nesting within. No such features were found, however, it is noted that the trees were in full leaf at the time of survey and this may have obscured observations. The recommendation is therefore made that if it becomes necessary to remove or de-limb any mature on-site trees, then they should first be inspected by an appropriately experienced ecologist before any potentially disturbing works take place. This survey would ideally take place whilst the trees are not in leaf.

5.15 Bats

All British species of bat are protected under both European and British law. Therefore surveys are required to check for their presence in areas where bats or their roosts are likely to be disturbed for any reason.

Bats are known to roost in buildings and mature trees, where they rest, give birth, raise young and hibernate. Buildings provide a choice of safe, dry places and can present a whole range of potential roost sites such as within wall cavities, eaves or roofs.

Some bat species rely exclusively on trees for roost sites; others use them for only part of the year. The importance of trees to bats depends on species, season and foraging behaviour. Even in winter, deep cavities can provide protection against bad weather and fluctuations in temperature. Furthermore, trees and hedgerows, especially native ones, can host many species of insects, which are food for bats, and can also aid bat navigation.

Cofnod provided details of bats including common pipistrelle occurring within around 1km of the site since 1998.

All on-site buildings were considered to be of Negligible suitability to support bat roosting owing to a lack of suitable structural features, such as cavities and voids; all buildings were single-skinned and without voids.

All of the mature trees within the boundary hedgerows were categorised as having Low bat roost potential. Although no potential roost features were observed, the trees are of sufficient maturity to support age-related features (such as fissures and holes) which may have not been identifiable from the ground due to them being in full leaf at the time of survey. As for barn owl, the recommendation is made that if it becomes necessary to remove or de-limb any of the mature trees on site, then they should first be inspected from the ground by an appropriately experienced ecologist whilst they are not in leaf before any potentially disturbing works take place. If this is not possible, the trees may have to be climbed to check for potential roost features.

The hedgerows offer suitable foraging and commuting habitat to bats, and are likely to be used for such purposes by species such as common pipistrelle. The site layout plan indicates the retention in full of Hedgerows 1 & 2, and the loss of approximately half of Hedgerow 3 to facilitate the development. Although Hedgerow 3 does not appear to offer any particularly strong corridors to habitats in the wider area (terminating at residential development to the south), the hedgerow itself is of moderate/high suitability for commuting and foraging bats. The local planning authority may therefore require a bat activity survey to be undertaken to establish the value of this hedgerow to bats and the likely impacts resulting from its removal.

All retained hedgerows should ideally be protected against light spillage from adjacent street lighting by use of low-pressure sodium lamps and/or use of spill shields. This recommendation applies in particular to any street lighting proposed to be provided adjacent to Hedgerows 2 & 3, where new access roads/drives are proposed.

5.16 Birds

All species of wild bird, their nest and eggs are protected under Section 1 of the *Wildlife and Countryside Act*, 1981 (as amended). Therefore surveys are required to check for their presence where they are likely to be disturbed for any reason.

Cofnod provided numerous records of Priority and protected bird species occurring within the search area since 1998.

Swallow (an RSPB Welsh Amber list species) was recorded using the stable blocks for nesting. Several pairs were observed. The site does not offer suitable nesting opportunities for house martin or swift. The site is too enclosed by tall hedgerows and trees to be used by ground nesting species such as lapwing or skylark. The boundary hedgerows and the mature trees they contain are of greatest value to birds, and they are proposed to be largely retained.

The development will require the removal of the immature trees around the horse ménage and the likely removal of the southern section of Hedgerow 3. All woody vegetation on site has potential to support nesting birds. It is recommended that all site preparation works, including vegetation removal and building demolition, be conducted between October and February (i.e. outside of the nesting bird season,

which generally encompasses March to September). If this is not possible and works are required to be conducted during the bird nesting season, CES should be contacted and a nesting bird survey be conducted prior to any potentially disturbing works taking place. In the event that nesting birds are found to be present, an appropriate mitigation strategy should be formulated and implemented.

To help achieve net gains in biodiversity as a result of the development, the recommendation is made that at least one new house in every three be fitted with a bird nest box suitable for use by species that are: a) of conservation concern, b) likely to be associated with the local area and, c) readily utilise nest boxes. In this instance, it is appropriate to recommend the provision of nest boxes for house sparrow. Nest boxes should be fitted at least 1.5m above the ground and not on south-facing aspects where they are susceptible to the midday sun.

5.17 Butterflies

Cofnod provided records of small heath butterfly occurring within 1km of the proposed development site since 1998. Small heath is listed on S7 of the Environment (Wales) Act 2016, and like many other butterfly species of conservation concern, favour habitats where there are fine grasses, especially in dry, well-drained situations where the sward is short and sparse. The site therefore offers small heath with some suitable habitat, however, given its relatively small size (<3Ha), is considered unlikely to constitute an important butterfly site at the local level. No further survey effort in respect of butterflies is currently considered necessary.

5.18 Brown hare

Brown hare is a S7 and local Priority species. Cofnod provided details of brown hare occurring within around 1km of the proposed development site since 1998.

Brown hares are associated with farmland habitats, such as those found at the site, where they feed on grass shoots and utilise areas of tall vegetation for cover. Whilst the grassland remains tall, it offers suitable shelter habitat to brown hares and their leverets. The recommendation is therefore made that the vegetation be reduced in height (by mowing and/or grazing) to a height less than 10cm to dissuade brown hares and other small mammals from taking shelter in the working areas prior to the soil strip and tracking of machinery across the site.

If brown hares or leverets are discovered during development works, CES should be contacted for advice. No further survey effort in respect of this species is considered necessary.

5.19 Great crested newt

GCN are protected under both European and British law. Adult GCN predominantly live terrestrially, but utilise ponds for breeding purposes during the spring and summer months. Statutory guidance indicates that a survey may be necessary to check for the presence of GCN if background information on distribution suggests that they may be present. Detailed indicators include:

- Any historical records for GCN on the site, or in the general area

- A pond on or near the site (within around 500m), even if it holds water only seasonally. Note that muddy, cattle-poached, heavily vegetated or shady ponds, ditches and temporary flooded hollows can be used by GCN
- Sites with refuges (such as piles of logs or rubble), grassland, scrub, woodland, or hedgerows within 500m of a pond

Cofnod provided details of great crested newt, smooth newt and palmate newt occurring within 1km of the proposed development site. The nearest record for great crested newt was approximately 870m to the north west of the site.

There are no ponds on site and a review of OS mapping did not identify any ponds within 500m of the site. However, four waterbodies in the form of ditches appear to be located within this range (refer to Appendix A), consisting of waterbodies 1, A, B & C, which all appear to be flowing drainage ditches. UK amphibians, including GCN, do not generally breed in flowing waterbodies

GCN are considered likely to be absent from the site and no further survey in respect of this species is currently considered necessary. In the unlikely event that GCN are discovered on site, works should stop with immediate effect and CES should be contacted for advice.

The apparent lack of suitable breeding sites within close proximity of the site would appear to also preclude the use of it by other native amphibian species, such as smooth and palmate newt.

5.20 Hedgehog

Hedgehog is a S7 and local Priority species. Cofnod provided details of hedgehog occurring within approximately 320m of the proposed development site since 1998.

The site offers hedgehog with suitable foraging and shelter habitat. Development of the site does have the potential to impact upon hedgehogs, particularly if/where any hedgerow removal takes place. It is therefore recommended that a thorough search of all vegetation (dead or alive) to be removed is first made, and that such works proceed with caution; having regard to the potential presence of hedgehogs. Ideally, vegetation would be removed after the bird nesting season (generally accepted to end in September) and before the first hard frosts (typically November), to reasonably avoid encountering nesting birds and hibernating hedgehogs.

Upon completion of the development, it is recommended that hedgehogs be able to gain access to the gardens through a series of holes/gaps if close-panel fencing or walls are to be used; although ideally boundaries would comprise hedgerows. Gaps should be at ground level, approximately 13cm by 13cm, and incorporated in to each new garden.

5.21 Reptiles

All six species of British reptile are protected against intentional killing, injury or sale under Schedule 5 of the *Wildlife and Countryside Act*, 1981. The sand lizard and smooth snake are afforded a higher degree of protection under European law, which, amongst other things, makes it an offence to damage, destroy or obstruct their places

of shelter or disturb these species in such a place. However, the distribution of these species is limited, and is largely restricted to a few southern counties in England, with the exception of some coastal sites in Merseyside and North Wales which support populations of sand lizard. The distribution of the remaining species (i.e. adder, grass snake, slow worm and common lizard) is widespread. These are referred to as the 'widespread' reptiles. With some variation between species, reptiles prefer undisturbed habitats with open areas for basking and warmth, and more vegetated areas for shelter and feeding. They shelter and hibernate in crevices underground, such as within old mammal burrows, cracks within concrete bases and within spoil/rubble mounds.

Cofnod provided details of grass snake, slow worm and common lizard occurring within 1km of the site since 1998.

The site is predominantly of low suitability for the widespread reptile species, however, some habitat suitable to support slow worm was present to the south of the site in the area dominated by tall ruderal vegetation (refer to para. 5.5). Here, the combination of rank vegetation, bare ground and suitable shelter sites offers this species with some suitable habitat, albeit relatively limited in size. Nevertheless, slow worms (and all other reptile species) are considered likely to be absent from the site given that this area of suitable habitat is effectively isolated from other areas of similarly suitable habitats. However, as a precautionary measure, it is recommended that the tall ruderal vegetation to the south of the site (south of the access track shown in Appendix B), be cut back during autumn to encourage any reptiles potentially present to disperse from this area and to not recolonise. Vegetation should be cut at no less than 10cm above the ground to reduce the risk of killing or injuring reptiles, whilst suitably degrading the habitat to encourage dispersal. Cutting should begin to the west of this area and end at the east; allowing any reptiles and small mammals potentially present opportunity to disperse into adjacent farmland.

No further survey in respect of reptiles is currently considered necessary. In the unlikely event that reptiles are discovered on site, CES should be contacted for advice.

6.0 SUMMARY RECOMMENDATIONS TABLE

	Species potentially associated with the site/s?	Further survey effort required?	Survey timing	Recommendations
Badger	Yes	Advisable	-	An inspection of the boundary hedgerows during the winter months when vegetation has died back, or if this has not been possible, a pre-commencement check.
Barn owl	Yes	Potentially If it becomes necessary to remove or de-limb any mature on-site trees, then they should first be inspected by an appropriately experienced ecologist before any potentially disturbing works take place. This survey would ideally take place whilst the trees are not in leaf.	This survey would ideally take place whilst the trees are not in leaf.	-
Bats	Yes	Potentially: If it becomes necessary to remove or de-limb any mature on-site trees, then they should first be inspected by an appropriately licensed ecologist before any potentially disturbing works take place. This survey would ideally take place whilst the trees are not in leaf. A Bat Activity Survey may be required by the LPA to assess	This survey would ideally take place whilst the trees are not in leaf. May - September	No potentially disturbing work should take place until the results of the assessment are known.

		the impacts of removing the southern section of Hedgerow 3		Retention of hedgerows
Birds	Yes	Potentially: Nesting bird surveys will be required <u>if</u> vegetation removal works or building demolition works are to take place between March & September.	March - September	Vegetation removal works should take place outside of the bird breeding season (i.e. October – February). A survey will not be required if potentially disturbing works are undertaken during this period. Nest boxes for house sparrow should be provided on the new houses.
Brown hare	Yes	No	-	Grassland on site should be kept low (<10cm) to deter brown hare from using the site.
Hedgehog	Yes	No	-	Where possible, all woody/scrub vegetation to be affected should first be checked for the presence of hedgehogs prior to potentially disturbing works taking place. Any fences should incorporate gaps to allow hedgehogs to move across the site. Ideally hedgerows should be used to divide properties rather than fences.
Great crested newt	Unlikely	No	-	-
Reptiles	Unlikely	No	-	Reduction in height of the tall ruderal vegetation to the south of the site.
Hedgerows	On-site	Potentially: The LPA may require a detailed hedgerow assessment of Hedgerow 3 prior to consenting any removal works.	March - September (whilst still in leaf)	Retention of hedgerows where possible

7.0 REFERENCES

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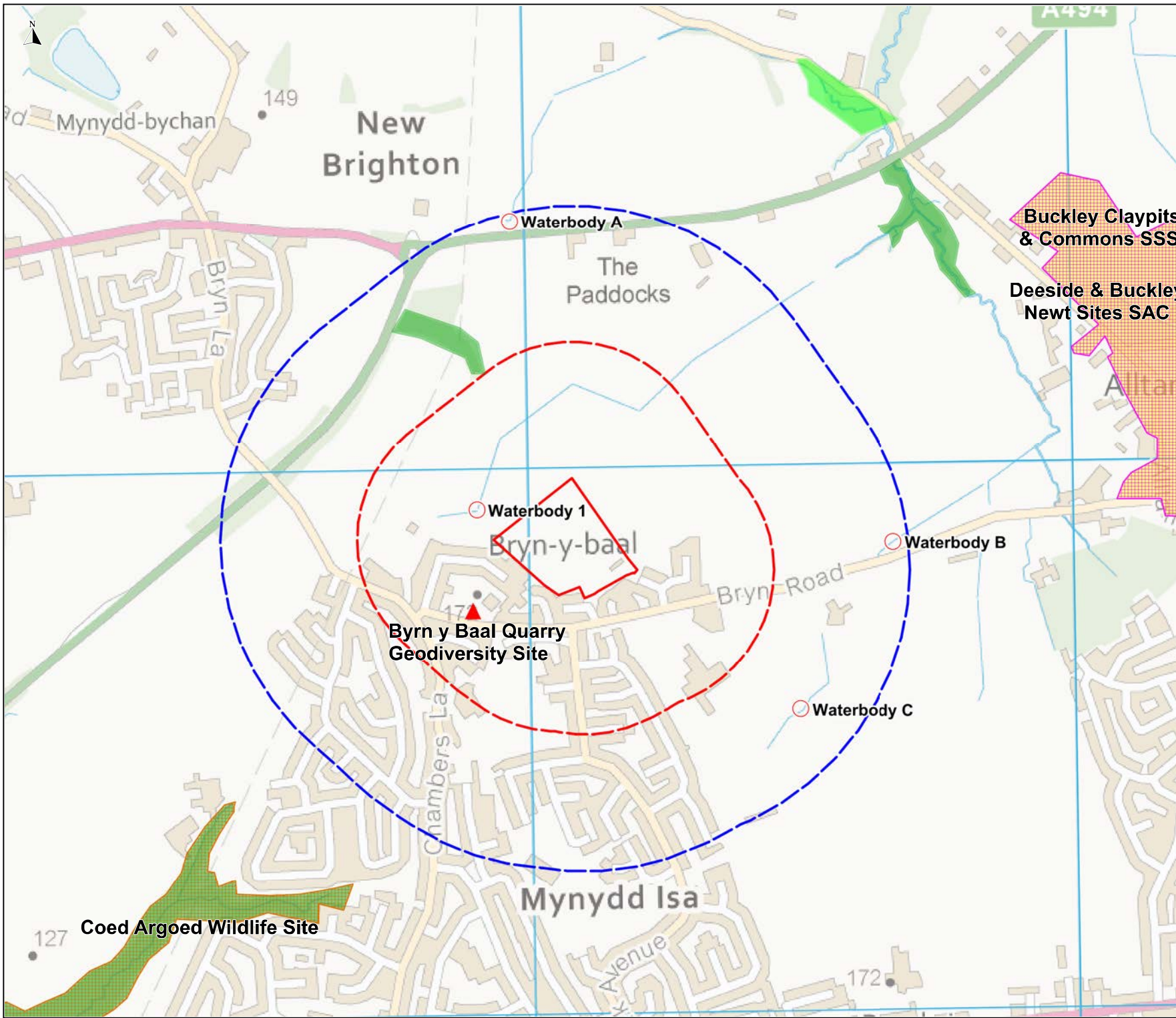
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Appendices

Appendix A: Site Location Plan



- Legend**
- Proposed development site boundary
 - - - 250m radius
 - - - 500m radius
 - Waterbodies
 - Buckley Claypits & Commons SSSI
 - Deeside & Buckley New Sites SAC
 - Coed Argoed Wildlife Site
 - ▲ Regionally Important Geodiversity Site
 - Restored ancient woodland
 - Ancient semi-natural woodland

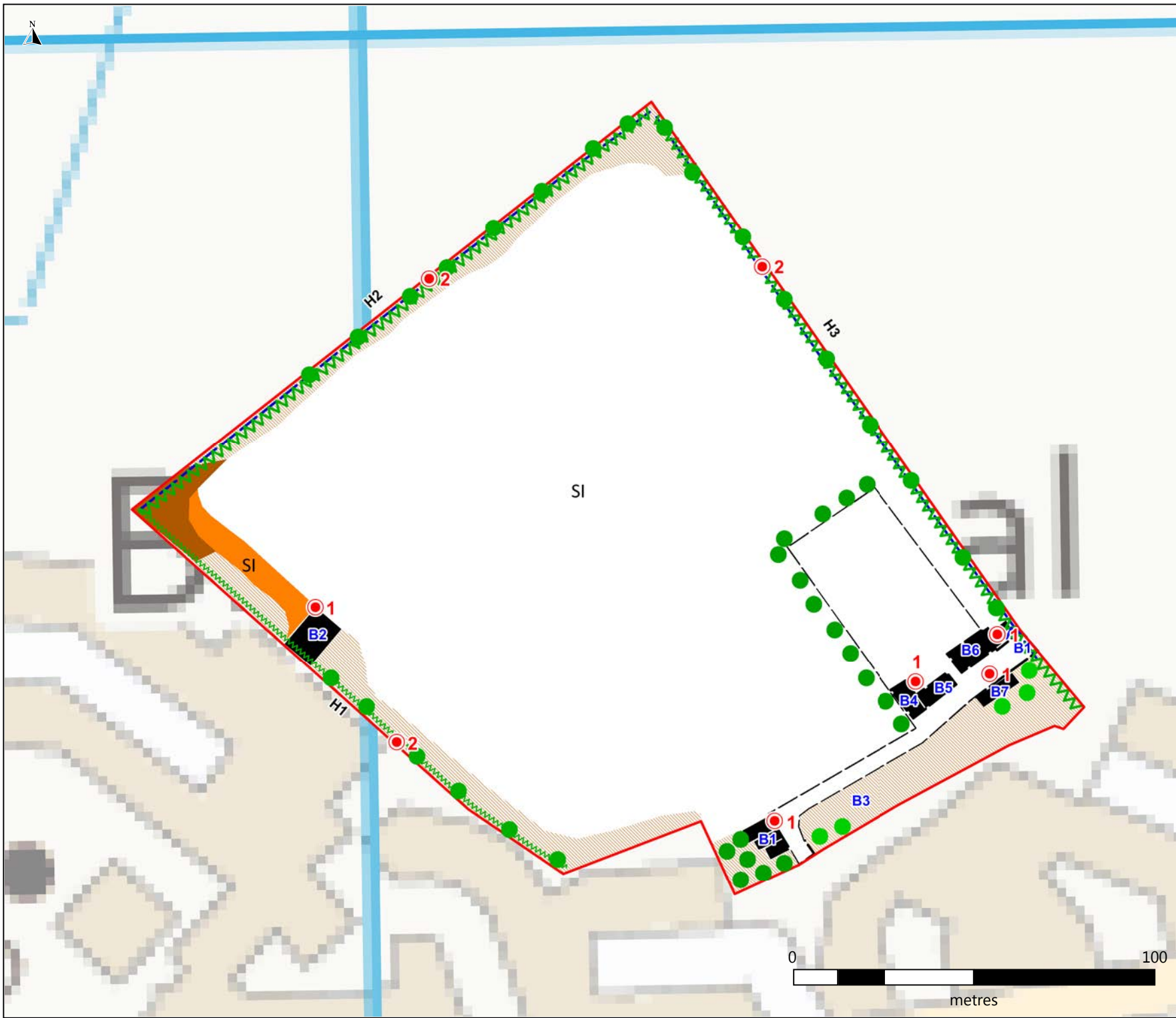
Project:	Land off Llys Gwynant, Bryn y Baal, Flintshire
Map:	Site Location Plan
CES Ref:	CES/1422/06-18/LO
Scale:	Not to scale / Indicative
Date:	June 2018

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Appendix B: Extended Phase 1 Habitat Survey Map & Key



- Legend**
- Proposed development site boundary
 - SI B2.2 - Semi-improved neutral grassland
 - C1.1 - Bracken
 - SI B6 - Poor semi-improved grassland
 - C3.1 - Tall ruderal
 - J3.6 - Buildings
 - Hard standing
 - Defunct species-rich hedgerow
 - Intact species-rich hedgerow
 - Dry ditch
 - Scattered trees
 - Target note
 - H#** Hedgerow Number
 - B#** Building Number

Project:	Land off Llys Gwynant, Bryn y Baal, Flintshire
Map:	Extended Phase 1 Habitat Map
CES Ref:	CES/1422/07-18/LO
Scale:	Not to scale / Indicative
Date	July 2018

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Appendix C: Species Lists

Species present in the grassland

Scientific name	Common name	Frequency (DAFOR)
<i>Agrostis capillaris</i>	Common bent	O
<i>Alopecurus pratensis</i>	Meadow foxtail	F
<i>Anthoxanthum odoratum</i>	Sweet vernal-grass	O
<i>Centaurea nigra</i>	Common knapweed	R
<i>Cerastium fontanum</i>	Mouse-ear chickweed	O
<i>Cirsium arvense</i>	Creeping thistle	LA
<i>Cynosurus cristatus</i>	Crested dog's-tail	O
<i>Equisetum arvense</i>	Field horsetail	R
<i>Holcus lanatus</i>	Yorkshire fog	O
<i>Lathyrus pratensis</i>	Meadow vetchling	R
<i>Lolium perenne</i>	Perennial rye-grass	A
<i>Plantago lanceolata</i>	Ribwort plantain	O
<i>Plantago major</i>	Greater plantain	R
<i>Poa trivialis</i>	Rough meadow-grass	O
<i>Potentilla anserina</i>	Silverweed	R
<i>Prunella vulgaris</i>	Selfheal	R
<i>Prunus spinosa</i> (saplings)	Blackthorn	R
<i>Ranunculus acris</i>	Meadow buttercup	O
<i>Ranunculus repens</i>	Creeping buttercup	LF
<i>Rhinanthus minor</i>	Yellow rattle	R
<i>Rumex obtusifolius</i>	Broad-leaved dock	O
<i>Senecio jacobaea</i>	Common ragwort	R
<i>Taraxacum officinale</i> agg.	Dandelion	R
<i>Trifolium pratense</i>	Red clover	O
<i>Trifolium repens</i>	White clover	O
<i>Vicia cracca</i>	Tufted vetch	R

Species present in the area of semi-improved grassland

Scientific name	Common name	Frequency (DAFOR)
<i>Agrostis capillaris</i>	Common bent	A
<i>Alopecurus pratensis</i>	Meadow foxtail	A
<i>Anthoxanthum odoratum</i>	Sweet vernal-grass	O
<i>Cynosurus cristatus</i>	Crested dog's-tail	A
<i>Holcus lanatus</i>	Yorkshire fog	O
<i>Lathyrus pratensis</i>	Meadow vetchling	LA
<i>Plantago lanceolata</i>	Ribwort plantain	A
<i>Prunella vulgaris</i>	Selfheal	R
<i>Ranunculus acris</i>	Meadow buttercup	O
<i>Ranunculus repens</i>	Creeping buttercup	R
<i>Rhinanthus minor</i>	Yellow rattle	R
<i>Rumex acetosa</i>	Common sorrel	O
<i>Senecio jacobaea</i>	Common ragwort	R
<i>Trifolium pratense</i>	Red clover	F
<i>Trifolium repens</i>	White clover	O
<i>Vicia cracca</i>	Tufted vetch	LA

Species present in Hedgerow 1

Scientific name	Common name
<i>Corylus avellana</i>	Hazel
<i>Crataegus monogyna</i>	Hawthorn
<i>Fraxinus excelsior</i>	Ash
<i>Ilex aquifolium</i>	Holly
<i>Quercus robur</i>	Oak
<i>Sambucus nigra</i>	Elder
<i>Sorbus aucuparia</i>	Rowan

Species present in tall ruderal vegetation adjacent to hedgerows H1 and H2.

Scientific name	Common name
<i>Cirsium arvense</i>	Creeping thistle
<i>Galium aparine</i>	Cleavers
<i>Heracleum sphondylium</i>	Hogweed
<i>Holcus lanatus</i>	Yorkshire fog
<i>Pteridium aquilinum</i>	Bracken
<i>Ranunculus repens</i>	Creeping buttercup
<i>Rumex obtusifolius</i>	Broad-leaved dock
<i>Urtica dioica</i>	Nettle

Species present in scrub to the east of H1

Scientific name	Common name
<i>Arrhenatherum elatius</i>	False oat-grass
<i>Calystegia sepium</i>	Hedge bindweed
<i>Cirsium arvense</i>	Creeping thistle
<i>Crataegus monogyna</i>	Hawthorn
<i>Epilobium hirsutum</i>	Giant willowherb
<i>Heracleum sphondylium</i>	Hogweed
<i>Lolium perenne</i>	Perennial rye-grass
<i>Pteridium aquilinum</i>	Bracken
<i>Rubus fruticosus</i> agg.	Bramble

Species present in Hedgerow 2

Scientific name	Common name
<i>Corylus avellana</i>	Hazel
<i>Crataegus monogyna</i>	Hawthorn
<i>Ilex aquifolium</i>	Holly
<i>Lonicera periclymenum</i>	Honeysuckle
<i>Prunus/Malus</i> sp.	Apple/plum sp.
<i>Quercus robur</i>	Oak
<i>Rosa</i> sp.	Rose
<i>Sambucus nigra</i>	Elder
<i>Sorbus aucuparia</i>	Rowan

Species present in tall ruderal between grassland and Hedgerow 2

Scientific name	Common name
<i>Chamerion angustifolium</i>	Rosebay willowherb
<i>Heracleum sphondylium</i>	Hogweed
<i>Pteridium aquilinum</i>	Bracken
<i>Rosa</i> sp.	Rose sp.
<i>Rubus fruticosus</i> agg.	Bramble
<i>Rumex obtusifolius</i>	Broad-leaved dock
<i>Urtica dioica</i>	Nettle

Species present in Hedgerow 3

Scientific name	Common name
<i>Acer pseudoplatanus</i>	Sycamore
<i>Betula pendula</i>	Silver birch
<i>Corylus avellana</i>	Hazel
<i>Cotoneaster</i> sp.	Cotoneaster sp.
<i>Crataegus monogyna</i>	Hawthorn
<i>Ilex aquifolium</i>	Holly
<i>Prunus spinosa</i>	Blackthorn
<i>Quercus robur</i>	Oak
<i>Rosa</i> sp.	Rose
<i>Rubus fruticosus</i> agg.	Bramble
<i>Salix caprea</i>	Goat willow
<i>Sambucus nigra</i>	Elder

Species present along north-west of menage

Scientific name	Common name
<i>Betula pendula</i>	Silver birch
<i>Corylus avellana</i>	Hazel
<i>Salix caprea</i>	Goat willow

Species present along south-west of menage, amenity tree planting

Scientific name	Common name
<i>Acer pseudoplatanus</i>	Sycamore
<i>Betula pendula</i>	Silver birch
<i>Crataegus monogyna</i>	Hawthorn
<i>Fraxinus excelsior</i>	Ash
<i>Quercus robur</i> (saplings)	Oak
<i>Rosa</i> sp.	Rose sp.
<i>Rubus fruticosus</i> agg.	Bramble
<i>Salix caprea</i>	Goat willow

Species present in tall ruderal vegetation in south-east of site

Scientific name	Common name
<i>Cirsium arvense</i>	Creeping thistle

<i>Dactylis glomerata</i>	Cocksfoot
<i>Lolium perenne</i>	Perennial rye-grass
<i>Potentilla anserina</i>	Silverweed
<i>Rubus fruticosus</i> agg.	Bramble
<i>Rumex obtusifolius</i>	Broad-leaved dock
<i>Urtica dioica</i>	Nettle

* The abundance of all recorded botanical species identified in potential Biodiversity Action Plan Priority habitats was assessed using the DAFOR scale. The DAFOR scale is a broad interpretive assessment whereby the surveyor assigns one of the following categories to the abundance of the species; Dominant, Abundant, Frequent, Occasional or Rare.

N.B. These species lists represent those species identified during the survey. Those species which were not in growth or could not be identified due to the growth stage are not included. Exotic species (such as garden escapes) may also have been omitted from the above lists. However, it is considered that the information gathered during the survey was sufficient to provide an accurate assessment of the site.

Appendix D: Photographic Plates



Plates 1a and 1b: View of storage containers- B1



Plates 2a and 2b: View of semi-improved grassland



Plates 3a and 3b: View of hedgerow- H1 (TN2)



Plate 4: View of oak tree within hedgerow- H1



**Plates 5a and 5b: View looking through tall ruderal vegetation at building - B2;
view of area of semi-improved grassland to north of building**



Plates 6a and 6b: View of north end of hedgerow - H1; bracken scrub



Plates 7a and 7b: View north-east along hedgerow - H2; View south-west along hedgerow - H2 (TN2)



Plates 8a and 8b: View south-east along hedgerow - H3; View north-west along hedgerow - H3 (TN2)



Plates 9a and 9b: View of trees around north-west end of menage, looking south-east; view looking north-west out of menage



Plates 10a and 10b: View of menage; View of north-west corner of menage



Plates 11a and 11b: View of trees along south-west of menage; View to northern corner of menage



Plates 12a and 12b: View of open fronted stable looking south, building B1; View of open fronted stable B1 looking north



Plates 13a and 13b: View of open fronted barns B4 and B7



Plates 14a and 14b: View of open fronted stable B4; View of various chicken sheds B3



Plates 15a and 15b: View of tall ruderal in south-east corner; View of conifers next to current entrance gate from Issa Farm



Plate 16: View of hedgerow adjacent to menage - H3 (TN2).

Appendix E: Proposed Site Layout

Appendix F: Legislation

Species/Habitat	Protected by:	UK BAP
Badger	<i>Protection of Badgers Act, 1992</i>	No
Barn owl	Schedule 1, Part 1 of the <i>Wildlife and Countryside Act, 1981</i>	No
Bats	Regulation 42 of <i>The Conservation of Habitats and Species Regulations, 2017</i> Section 9 of the <i>Wildlife and Countryside Act, 1981</i> (as amended) Section 7 of the <i>Environment (Wales) Act 2016</i>	Dependent on species
Brown hare	Section 7 of the <i>Environment (Wales) Act 2016</i>	Yes
Butterflies & Moths	Section 7 of the <i>Environment (Wales) Act 2016</i>	Dependent on species
Great crested newt	Regulation 42 of <i>The Conservation of Habitats and Species (Amendment) Regulations, 2017</i> Section 9 of the <i>Wildlife and Countryside Act, 1981</i> (as amended) Section 7 of the <i>Environment (Wales) Act 2016</i>	Yes
Hedgehogs	Section 7 of the <i>Environment (Wales) Act 2016</i>	Yes
Hedgerows	<i>The Hedgerows Regulations, 1997</i>	Yes
Nesting birds	Section 1 of the <i>Wildlife and Countryside Act, 1981</i>	Dependent on species
'Widespread' reptiles	Provisions 1 and 5 of Section 9 of the <i>Wildlife and Countryside Act, 1981</i> (as amended) Section 7 of the <i>Environment (Wales) Act 2016</i>	Yes

The Conservation of Habitats and Species Regulations, 2017

European protected species are listed on Schedule 2 of the *Conservation of Habitats and Species Regulations 2010*. Those species listed on Schedule 2 are protected under Regulation 41, which refers to the protection of wild animals of a European Protected Species. The following is a summary of the offences listed under Regulation 41, however, the *Conservation Regulations* should always be referred to for the exact and current wording:

Under Regulation 41 of the *Conservation of Habitats and Species Regulations, 2010* it is an offence to –

- deliberately capture or kill a wild animal of a European protected species;
- deliberately disturb wild animals, in particular any disturbance which is likely:
 - to impair their ability to survive, to breed or reproduce, or to rear or nurture their young; or
 - to impair their ability, in the case of animals of a hibernating or migratory species, to hibernate or migrate;
 - to affect significantly the local distribution or abundance of the species to which they belong
- deliberately take or destroy the eggs of such an animal; or
- damage or destroy a breeding site or resting place of such an animal.

- keep, transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal of a European protected species, or any part of, or anything derived from, such an animal.

Wildlife and Countryside Act, 1981 (as amended)

British protected species of animal are listed on Schedule 5 of the *Wildlife and Countryside Act, 1981* (as amended). Those species listed on Schedule 5 are protected under Part 1, Section 9, which refers to the protection of certain wild animals. The following is a summary of the offences listed under Section 9; however the Act should always be referred to for the exact and current wording:

Under Section 9 of the *Wildlife and Countryside Act, 1981* (as amended) if any person –

- intentionally kills, injures or takes any wild animal included in Schedule 5;
- has in his possession or control any live or dead wild animal included in Schedule 5 or any part of, or anything derived from such an animal;
- intentionally or recklessly damages or destroys, or obstructs access to, any structure or place which any wild animal included in Schedule 5 uses for shelter or protection;
- disturbs any such animal included in Schedule 5 while it is occupying a structure or place which it uses for that purpose;
- sells, offers or exposes for sale, or has in his possession or transports for the purpose of sale, any live or dead wild animal included in Schedule 5, or any part of, or anything derived from, such an animal; or,
- publishes or causes to be published any advertisement likely to be understood as conveying that he buys or sells, or intends to buy or sell, any of those things, he shall be guilty of an offence.

Wildlife and Countryside Act, 1981 (as amended) - Birds

All species of wild bird, their nests and eggs are protected under Section 1 of the *Wildlife and Countryside Act, 1981* (as amended); therefore surveys are required to check for their presence where they are likely to be disturbed for any reason.

The following is a summary of the offences listed under Section 1; however the Act should always be referred to for the exact and current wording:

Under Section 1 of the *Wildlife and Countryside Act, 1981* (as amended), if any person:

- Intentionally kills, injures or takes any wild bird;
- Intentionally takes, damages or destroys the nest of any wild bird while that nest is in use or being built;
- Intentionally takes or destroys an egg or any wild bird, he shall be guilty of an offence;
- Has in his possession or control any live or dead wild bird or any part of, or anything derived from, such a bird; or
- Has in his possession or control an egg of any wild bird or any part of such an egg, he shall be guilty of an offence.

Schedule 1 (Part 1 and Part 2) of the *Wildlife and Countryside Act, 1981* (as amended) lists bird species that receive special attention under Section 1. Any person convicted of an offence listed above, in respect of a bird included in Schedule 1 or any part of, or anything derived from, such a bird; the nest of such a bird; or an egg of such a bird or any part of such an egg, shall be liable to a special penalty.

Also, if any person intentionally or recklessly disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or disturbs dependent young of such a bird, he shall be guilty of an offence and liable to a special penalty.

Schedules 1, 2, 3 and 4 of the *Wildlife and Countryside Act, 1981* (as amended) list different species of bird and different Parts of Section 1 of the Act refer to different offences which may be committed in relation to the varying Schedules. The following is a summary of the type of protection offered to species of wild bird listed on each of the Schedules, however the Act itself should always be referred to for the exact and current wording and full species lists:

Schedule 1: Birds which are protected by special penalties:

Part 1: At all times.

Part 2: During the close season.

Schedule 2: Birds which may be killed or taken:

Part 1: Outside the close season.

Part 2: By authorised persons at all times.

Schedule 3: Birds which may be sold:

Part 1: Alive at all times if ringed and bred in captivity.

Part 2: Dead at all times.

Part 3: Dead from 1st September to 28th February.

Schedule 4: Birds which must be registered and ringed if kept in captivity.

The Environment (Wales) Act, 2016

Section 7 of the *Environment (Wales) Act, 2016* replaces the duty in Section 42 of the *Natural Environment and Rural Communities (NERC) Act, 2006* (as amended). Section 7 comprises a list of species and habitats of principle importance which is the same as the list under the superseded Section 42 of the *NERC Act, 2006*. The *Environment (Wales) Act* itself should be referred to for the exact and current wording however a summary is detailed below:

- The Welsh Ministers will publish, review and revise lists of living organisms and types of habitat in Wales, which they consider are of key significance to sustain and improve biodiversity in relation to Wales;
- They must therefore consider any appropriate evidence, for example as provided in the State of Natural Resources Report, and also engage with any relevant stakeholders;
- The Welsh Ministers must also take all reasonable steps to maintain and enhance the living organisms and types of habitat included in any list published under this section, and encourage others to take such steps.

The Hedgerow Regulations, 1997

Hedgerows are distinctive features in the countryside and are the traditional type of field boundary in many areas of England and Wales. Many of these date back to the original enclosure of the land and so are of historic interest and importance.

Hedgerows (particularly older hedgerows) can contain a diverse mix of species and provide important links between other areas of habitat thus allowing wildlife to disperse. This role that

hedgerows play in conserving and enhancing biodiversity is recognised by the UK BAP for this habitat type.

Hedgerows which meet certain criteria are protected by *The Hedgerows Regulations, 1997*. The aim of the Regulations is to protect important hedgerows in the countryside by controlling their removal through a system of notification. Under the Regulations it is against the law to remove or destroy certain hedgerows without permission from the Local Planning Authority (LPA). The criteria used to assess hedgerows relate to the value of a hedgerow from an archaeological, historical, landscape or wildlife perspective. They exclude hedgerows that are less than 30 years old. If a hedgerow is at least 30 years old and qualifies under any one of the criteria, then it is important and LPA approval is required before it can be lawfully removed or destroyed.

Removal of a hedgerow in contravention of the Regulations is a criminal offence, punishable in some cases in the Magistrates Court, by a fine of up to £5,000. For anyone convicted on indictment in the Crown Court, the fine is unlimited.

If a hedgerow is over 30 years old and meets the criteria in the Regulations it is classified as 'important'. A summary of the criteria is set out below, however, *The Hedgerow Regulations, 1997* should be referred to for the exact and current wording:

- Marks a pre-1850 parish or township boundary; or
- Incorporates an archaeological; or
- Is part of, or associated with, an archaeological site; or
- Marks the boundary of, or is associated with, a pre-1600 estate or manor; or
- Forms an integral part of a pre-Parliamentary enclosure field system; or
- Contains certain categories of species of birds, animals or plants listed in the Wildlife and Countryside Act or Joint Nature Conservation Committee (JNCC) publications.
- Includes:
 - At least 7 woody species, on average, in a 30 metre length; or
 - At least 6 woody species, on average, in a 30 metre length and has at least 3 associated features; or
 - At least 6 woody species, on average, in a 30 metre length, including a black-poplar tree, or large-leaved lime, or a small-leaved lime, or wild service-tree; or
 - At least 5 woody species, on average, in a 30 metre length and has at least 4 associated features.
- Runs alongside a bridleway, footpath, road used as a public path, or byway open to all traffic and includes at least 4 woody species, on average, in a 30 metre length and has at least 2 of the associated features listed at (i) to (v) below.

(Note: The number of woody species is reduced by one in the North of England (which does not include Cheshire). The list of 56 woody species comprises mainly shrubs and trees. It generally excludes climbers (such as clematis, honeysuckle and bramble) but includes wild roses)

Associated features:

- (i) A bank or wall supporting the hedgerow;
- (ii) Less than 10% gaps;
- (iii) On average, at least one tree per 50 metres;
- (iv) At least 3 species from a list of 57 woodland plants;
- (v) A ditch;
- (vi) A number of connections with other hedgerows, ponds or woodland; and
- (vii) A parallel hedge within 15 metres.

The *Protection of Badgers Act, 1992*

The following is a summary of the offences contained in the Act; however the *Protection of Badgers Act, 1992* itself should always be referred to for the exact and current wording.

Under the *Protection of Badgers Act, 1992* a person is guilty of an offence if, except as permitted by or under this Act he:

- wilfully kills, injures or takes, or attempts to kill, injure or take, a badger;
- has in his possession or under his control any dead badger or any part of, or anything derived from, a dead badger;
- cruelly ill-treats a badger;
- uses badger tongs in the course of killing or taking, or attempting to kill or take, a badger;
- digs for a badger; or,
- sells a live badger or offers one for sale or has a live badger in his possession or control.

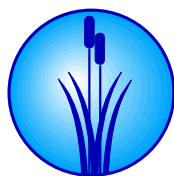
A person is also guilty of committing an offence under the *Protection of Badgers Act, 1992* if he intentionally or recklessly interferes with a badger sett by doing any of the following things:

- damaging a badger sett or any part of it;
- destroying a badger sett;
- obstructing access to, or any entrance of, a badger sett;
- causing a dog to enter a badger sett; or,
- disturbing a badger when it is occupying a badger sett,

The definition of a badger sett within the meaning of the 1992 Act is given as “any structure or place, which displays signs indicating current use by a badger”. ‘Current’ is not defined in the Act, and may be open to interpretation. Natural England indicates that a sett is in ‘current’ use if it has been occupied at all over the previous 12 months. Whatever the interpretation of ‘current use’ however, it is important to note that a sett is protected whether or not there is a badger actually in residence at the time of inspection.

Natural England Guidelines (which is also referred to in Wales) state that work that disturbs badgers or their setts is illegal if not carried out under licence. Badgers could be disturbed by work near their sett even if there is no direct interference or damage to the sett itself, for example, using very heavy machinery within 30 metres of an active sett. Lighter machinery (particularly for any digging operation) within 20 metres, or light work such as hand digging or scrub clearance within 10 metres of an active sett, all require a licence. There are some activities which can cause disturbance at a far greater distance (such as using explosives or pile driving) and should therefore be given individual consideration. Certain criteria must be met before a licence can be issued to enable otherwise prohibited works to proceed. Such criteria may be subject to change without notice.

Timing of operations should also be considered. If required, site-specific badger disturbance licences are normally only issued between the months of July and October so as to avoid the badger’s breeding season. This aspect should be borne in mind when assessing any possible constraints upon the development timetable.



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