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**Preliminary Ecological Assessment
Land at Maes Mona
Proposed Extra Care Housing Development**

22nd June 2020



Report by: Chris Hall ACIEEM

Client: Isle of Anglesey County Council

Planning Authority: Isle of Anglesey County Council

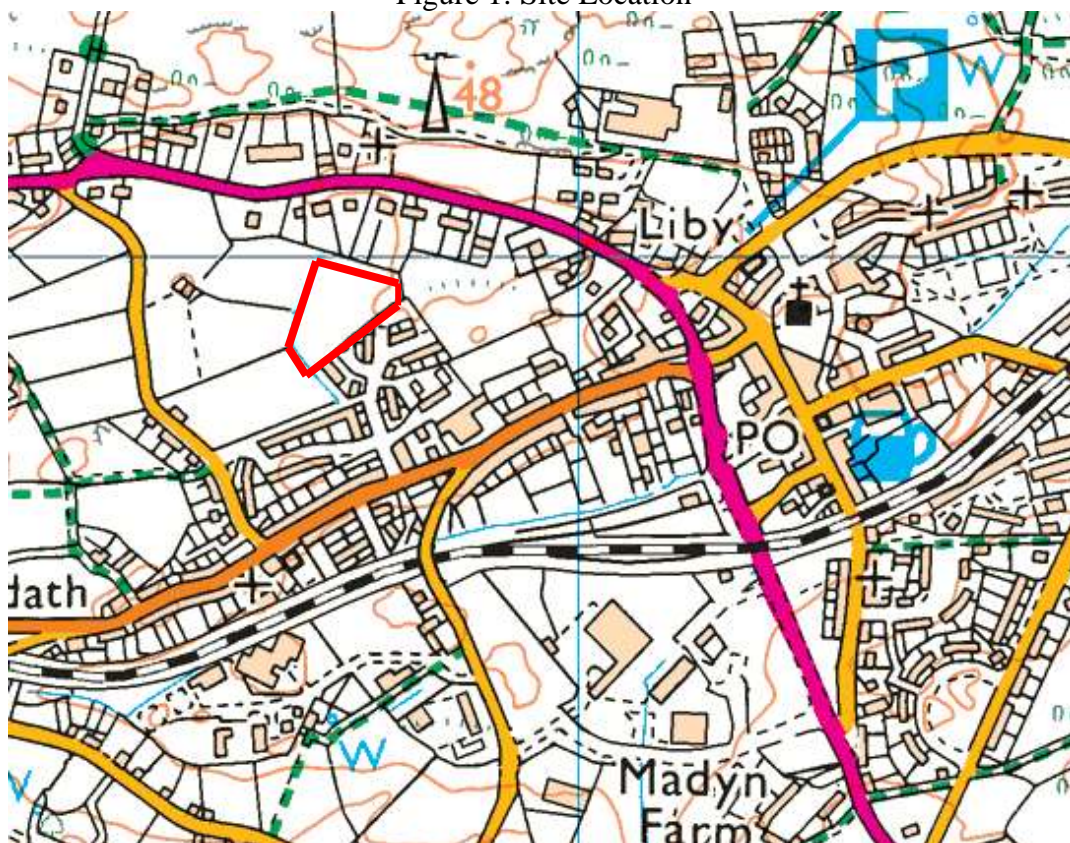
Grid Reference: SH 437 929 (Approximate site centre)

CONTENTS

Page No

| | | |
|------|--|----|
| 1. | Summary | 3 |
| 2 | Introduction | 4 |
| 3 | Methodology | 4 |
| 4 | Survey Limitations | 5 |
| 5 | Results | 5 |
| 6 | Habitat Evaluation & Impact Assessment | 10 |
| 7 | Species Evaluation & Impact Assessment | 11 |
| 8 | Protected/designated Sites Impact Assessment | 12 |
| 9 | Mitigation Measures | 12 |
| 10 | Biodiversity Enhancement | 15 |
| 11 | Legal Implications | 17 |
| 12 | Appendices | 18 |
| 12.1 | Site Photographic Record | |
| 12.2 | Phase 1 Habitat Map | |
| 12.3 | Review Table | |

Figure 1: Site Location



**Preliminary Ecological Assessment
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Proposed Extra Care Housing Development**

22nd June 2020

1. Summary

A preliminary ecological assessment, (PEA) was carried out by Cambrian Ecology Ltd on land at Maes Mona in Amlwch. It is intended to submit a planning application to develop the site for extra care housing.

The surveys revealed that the habitats present on the site are broadleaved woodland, improved grassland and scrub. There is also a drain just outside the western site boundary.

No protected species were recorded during the survey although there is some potential for nesting birds and hedgehogs to be present in the areas of dense scrub that will be lost.

A biological records search was carried out with the Local Records Centre, (LRC) Cofnod as recommended in the guidance from the Chartered Institute of Ecology & Environmental Management, (CIEEM). This enables the proposed development site to be assessed in a wider context and a potential wider 'zone of influence' of the development to be taken into account.

The biological records search revealed that there are a large number of hedgehog; (*Erinaceous europaeus*) records in the area which will need to be taken into account in the site design for this rapidly declining species, along with records of red squirrel; (*Sciurus vulgaris*).

There is a ditch just outside the western boundary of the site and while this is of little significance from an ecological point of view, watercourses such as this can act as a transmission vector for pollutants during the construction phase. This could then extend the 'zone of influence' of the proposals beyond the site boundary. Precautionary measures will be required to be in place to minimise the risk of this occurring,

Due to the botanically impoverished nature of the site, no negative impact is anticipated on Biodiversity as a result of the development.

Under Chapter 6 of Planning Policy Wales 10, planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. To satisfy this condition, the use of plants of benefit to Biodiversity has been recommended for inclusion in any landscaping schemes, along with the provision of bat tubes as an integral part of the fabric of the buildings.

Key Messages:

- 1. There is the potential for nesting birds, hedgehogs and red squirrels to be present for which mitigation measures will be required, see Section 9.2**

2. **There is the potential for reptiles to be present therefore reptile surveys have been recommended, see Section 9.2**
3. **There is the potential for pollution of the watercourse if precautionary measures are not taken, see Section 9.1**
4. **Enhancements are recommended in the form of new planting of benefit to wildlife, and new accommodation for bats, see Section 10**

2. Introduction

Cambrian Ecology Ltd was commissioned by the client Trystan Evans of Isle of Anglesey County Council, (IoACC) to carry out a PEA of land at Maes Mona in Amlwch. It is intended to submit a planning application to develop the site for extra care housing.

The relevant planning authority is IoACC who require ecological surveys to be carried out as an integral part of the planning process.

The proposed development site is located at Grid Reference SH 437 929.

3. Methodologies

3.1 Habitats

The Habitat survey was carried out on 8th June 2020 by ecologist Chris Hall. The survey took the form of an extended Phase I survey and identified baseline ecological conditions, as well as any important or notable habitats. All habitats within the proposed development site were classified and species lists were drawn up for each habitat type identified and the habitat condition was assessed. In the context of this report, *important or notable habitats* are considered to be those which are of a sustainable size and which meet any of the following criteria:

- Habitats which have a high intrinsic ecological value, i.e. they support a diverse range of vascular plant and/or faunal species;
- Mature or semi-natural habitats in built-up areas;
- Environment Wales Act priority habitats;
- Habitats considered having a significant extent and/or ecological interest.
- Invasive Non-Native Species, (INNS)

All habitats considered to have the potential to support rare, protected or otherwise notable species of flora and fauna were noted, as were any direct signs of these species. Where possible, habitats were cross-referenced to any relevant UK/Wales priority habitats.

3.2 Protected Species

The site was assessed on its potential to support any protected or important species, including reptiles. During this survey, a search was made for field signs of protected or notable species and

assessments made of the potential of habitats to support these species. In the context of this report important or notable species are considered to be those that meet any of the following criteria:

- Species protected by British or international law
- Environment Wales Act priority species or local BAP species
- Nationally rare or scarce species
- Species of Conservation Concern (e.g. JNCC Red List, RSPB/BTO Red or Amber lists)

3.3 Desk Study

The desktop study aims to collate existing information about priority species, habitats and designated sites within 1km of the survey area. This information has relevance to the likelihood of priority species being present within the survey area, as well as giving context to any species and habitat records from the actual site.

A data search for all priority species, habitats and designated sites was conducted with Cofnod. The search parameters were 1km from the survey site area.

4 **Survey Limitations**

Field signs for protected and important species are often difficult to find or absent from a site. For this reason, the site and its habitats are assessed on their potential to support these species.

5 **Results**

The Phase I Habitat Map can be found in Appendix 2.

5.1 Habitat

The habitat on the proposed development site is dominated by improved grassland. There is also a strip of broadleaved woodland, areas of scrub, a minor ditch and the remnants of a defunct hedge.

Broadleaved Woodland

The woodland is relatively young and comprises ash; (*Fraxinus excelsior*), sycamore; (*Acer pseudoplatanus*), elder; (*Sambucus nigra*) and hawthorn; (*Crataegus monogyna*).

The ground flora is very similar to the improved grassland in which the trees were planted but there is some incursion by bramble; (*Rubus fruticosus*) and foxglove; (*Digitalis purpurea*).

Defunct Hedge

There is a defunct hedge along the southern site boundary growing against a stone wall which is now little more than occasional hawthorn bushes with some bramble growing in the gaps.

Improved Grassland

This is by far the most dominant habitat on the site and is currently heavily grazed by livestock. Grasses present include perennial ryegrass; (*Lolium perenne*), common bent; (*Agrostis capillaris*) and Yorkshire fog; (*Holcus lanatus*). Cock's foot; (*Dactylis glomerata*) is also present in places around the field margins. Broadleaved species include creeping buttercup; (*Ranunculus repens*), broadleaved dock; (*Rumex obtusifolius*), creeping thistle; (*Cirsium arvense*) and chickweed; (*Stellaria media*).

Scrub

There are areas of fairly dense scrub on the site. The scrub habitat on the woodland edge is a virtual mono-culture of gorse; (*Ulex europaeus*) with bramble present as a relatively minor component.

The scrub habitat along the extreme western boundary on the bank of the watercourse is dominated by willow; (*Salix spp*), while the remainder of this habitat is primarily bramble with some hawthorn and occasional dog rose; (*Rosa canina*) and honeysuckle; (*Lonicera periclymenum*).

Tall Ruderal

There is a very small area of tall ruderal vegetation in the form of nettle; (*Urtica dioica*) just outside the boundary of one of the properties. This is likely to be as a result of nutrient enrichment from the deposition of garden waste.

Watercourse

There is a small ditch just outside the western boundary of the site. This watercourse appears to be ephemeral and held no water at the time of the survey. There is no specific aquatic vegetation associated with the ditch which was choked with Yorkshire fog, bramble and soft rush; (*Juncus effusus*).



Figure 2: Aerial Image of the proposed development site

5.2 Protected Species

The protected species survey was negative.

There is the potential for nesting birds to be present at the appropriate time of the year and hedgehogs in the areas of scrub which are all proposed for removal.

There is also the potential for reptiles to be present around the perimeter of the site where the combination of scrub for concealment adjacent to open habitat for basking provides the correct conditions. This potential is enhanced by the presence of a stone wall along the southern boundary which has crevices with the potential to be used for hibernating.

The woodland and woodland edge has the potential to be used as a flight path and foraging area by bats, although the trees are not yet of sufficient age to provide crevices for roosting.

5.3 Desk Study

The most relevant record received from the biological record search was that there are numerous records of hedgehog within the search area.

There are also some records of red squirrels with five records within the 1km radius search area and two records of bats in the form of pipistrelles; (*Pipistrellus spp*).

With regards to protected/designated sites, the nearest is the Porth Llechog Wildlife Site just over 400m away to the north, and the North Anglesey Marine Special Area of Conservation, (SAC) and the Anglesey Terns Special Protection Area, (SPA) which lie just over 500m away to the north.



Figure 3: Location of hedgehog records



Figure 4: Location of red squirrel records



Figure 5: Location of protected/designated site: SAC/SPA: Blue and Wildlife Site: Brown

6 Habitat Evaluation & Impact Assessment

Broadleaved Woodland

Broadleaved woodland is a particularly valuable habitat for a range of species and taxa and due to the very nature of the habitat, takes a long time to replace once lost. Although this is only a relatively young woodland, this habitat becomes progressively more valuable to Biodiversity as it ages. With time, dead wood and other defects on trees provide an even more diverse habitat. The loss of this habitat could have a negative impact at a local level, not only from a botanical point of view, but also from a perspective of the species that it supports such as nesting birds, foraging bats and potentially red squirrels.

Defunct Hedge

The defunct hedge is currently of minimal value to Biodiversity being little more than occasional hawthorn bushes. As a result this habitat feature does not contribute significantly to habitat connectivity. The loss of this habitat would therefore not have any negative impact at any level.

As a result there is the potential for a positive impact on Biodiversity if this hedge is replanted with a wider diversity of species.

Improved Grassland

The improved grassland has negligible ecological value being composed of a very limited range of common and widespread species of no conservation concern. The value is further diminished by the current management regime. No negative impact on Biodiversity at any level is therefore anticipated as a result of the loss of this habitat.

There is however the potential for a positive impact on Biodiversity as a result of the development if plants of benefit to wildlife are utilised in the landscaping schemes.

Scrub

The scrub habitat on the site currently lacks diversity being composed of a limited range of common and widespread species. No negative impact on Biodiversity at any level is anticipated as a result of the loss of this habitat. There are however potential protected species issues that will need to be taken into account in the form of nesting birds, hedgehogs and potentially reptiles.

Tall Ruderal

No impact at any level is anticipated as a result of the loss of this small patch of nettles

Watercourse

Although dry at the time of the survey, this watercourse has the potential to act as a transmission vector for any siltation/pollution incident during wetter periods of the construction phase. This could then extend the 'zone of influence' of the proposals beyond the site boundary.

Due to the very heavily vegetated condition of the dry watercourse, there are also potential protected issues in the form of nesting birds and hedgehogs.

7 Species Evaluation & Impact Assessment

Bats

Although there are records of bats within the 1km radius search area, there are no potential roosts on the site that could be impacted by the proposals. The loss of the woodland habitat could however result in a loss of foraging habitat but due to the very mobile nature of bats, combined with the small size of the habitat that may be lost, it is considered that any impact as a result of habitat loss would be negligible.

Due to the lack of potential roosts within the site boundary, there is the potential for enhancement for this species to satisfy the Planning Authority's obligations under the Environment Wales Act (2016).

Hedgehogs

The scrub habitats on the site provide potential foraging habitat for hedgehogs in addition to secure day-time concealment.

There is the potential for the killing and/or injury of hedgehogs during the removal of the scrub habitat on the site if this is carried out in an insensitive manner. This could result in a negative impact on hedgehogs at a local level.

There is also the potential for the killing/injury of animals during the construction phase if simple precautionary measures are not in place. The entrapment of animals in open excavations is the primary risk.

The hedgehog is a priority species across North Wales including Anglesey and as a result of this conservation status, any negative impact must be avoided.

Nesting Birds

Nesting birds will potentially be present in the scrub habitat by the proposed new site entrance. Any disturbance during the nesting season resulting in the failure of the brood could have a negative impact at a local level.

All birds, with the exception of some 'pest species' which can be controlled under licence, are protected while nesting. This factor must be taken into account in the mitigation strategy.

Red Squirrels

The loss of the woodland habitat has the potential to impact on foraging opportunities for red squirrels, although this is likely to be minimal due to the current composition of the woodland providing minimal foraging opportunities for this species. More important is the maintenance of connectivity of the woodland, especially arboreal linkage. Red squirrels spend around 70% of their time in the canopy and do not like to have to cross open areas. There is potential for disturbance and injury/killing of individuals during felling. Some RAMs are recommended in Section 9, which will minimise the likelihood of this occurring.

Due to the conservation status of the red squirrel which is a 'Priority BAP Species' listed under what is now Section 7 of the Environment Wales Act (2016) loss of any individuals can have a significant impact at the local and regional levels.

Reptiles

The proposed development site currently offers potential reptile habitat with a combination of scrub, stone walls and open areas for basking. It is however not known if reptiles are present, and if so, which species are present and what the population density is. It is however reasonable to assume, that due to the relatively small scale of the proposed development, that any negative impact would be restricted to a local level.

8 Protected/Designated Sites Impact Assessment

Due to the location of the protected/designated sites in relation to the proposed development site, it is not considered feasible that there could be any negative impact as a result of the proposals.

9 Mitigation Measures

9.1 Habitats

Broadleaved Woodland

It is strongly recommended that the strip of broadleaved woodland along the northern site boundary is retained and it is understood that this is feasible as it provides screening between the site and the properties on Bull Bay Road.

If it is not possible to retain the woodland, a comparable number of trees will be required to be planted as replacements. It is recommended that the new planting utilises the species detailed in Section 10 as being of benefit to red squirrels.

There are also protected species issues that will be required to be taken into account with regards to felling including nesting birds and red squirrels.

Defunct Hedge

No mitigation measures are required from a habitat point of view for the loss of the defunct hedge.

There are however potential protected species relating to the removal of habitat in the form of hedgehogs, nesting birds and reptiles.

It is recommended that the hedge is replanted as part of the landscaping proposals as detailed in Section 10; Biodiversity Enhancement.

Improved Grassland

Due to the very limited range of common and widespread species associated with this habitat, no mitigation measures for habitat loss are required.

Scrub

No mitigation measures are required for the loss of areas of scrub habitat due to the limited range of common and widespread species present. Again, there are potential protected species issues that will need to be taken into consideration, in particular nesting birds, hedgehogs and reptiles.

Watercourse

In the case of the watercourse, due to the potential for any pollution incidents to have a negative impact in the wider landscape, extending the 'zone of influence' of the proposals outside the site boundaries, precautionary measures will be required to be in place.

All works must be carried out in accordance with (Pollution Prevention guidelines (PPG 5 & 6) which can be found at:-

<http://www.netregs.org.uk/media/1303/gpp-5-works-and-maintenance-in-or-near-water.pdf>

<https://www.sepa.org.uk/media/60125/ppg-6-working-at-construction-and-demolition-sites.pdf>

Due to the heavily vegetated nature of the watercourse, there are potential protected species issues that will need to be taken into consideration, in particular nesting birds, hedgehogs and reptiles.

9.2 Protected Species

Bats

No bats or bat roosts will be lost, damaged or disturbed as part of the proposals. No mitigation measures are therefore required.

It is however recommended that the opportunity to enhance the habitat for bats is taken by providing new roosting opportunities as detailed in Section 10; Biodiversity Enhancement.

Hedgehogs

To prevent the killing or injury of hedgehogs, it is recommended that the scrub habitat is initially cut by hand under the supervision of a site ecologist. Any animals found during this operation can then be moved to a place of safety prior to machinery commencing work on the site.

To prevent hedgehogs, and other animals becoming trapped, any excavations left open overnight must be fitted with escape ramps.

To allow hedgehogs to move freely post-development, the new garden boundaries must be permeable to hedgehogs. This involves creating small holes in fencing or walls (13cm x 13cm) at ground level or using permeable fencing. These are easy to include for most fencing contractors and both wooden and concrete hedgehog-friendly boards can be purchased from some suppliers ready-made.

Nesting Birds

Any vegetation removal in habitats where nesting birds may be present must take place outside the nesting season, recognised by RSPB as 1st March – 30th September to avoid potential disturbance to nesting birds. If this is not possible, a thorough search for the presence of active nests must be undertaken by a suitably experienced ecologist prior to work commencing. If any active nests are found, work must be delayed until such time as the young have fledged.

Red Squirrels

It is strongly recommended that the woodland habitat on the site is retained. Although it is possible to replant woodland, this process takes a long time to establish and for the woodland to be of significant value to Biodiversity.

If the retention of the woodland is not feasible, the timing of the felling must be undertaken outside of the period 1st February to 31st October. This will avoid the potential for any inadvertent breach in the legislation pertaining to nesting birds and also will avoid the red squirrel breeding period when there are likely to be young in the nests.

Prior to felling, a thorough search of the woodland habitats will need to be conducted by an experienced ecologist to look for red squirrel dreys. The work will then be supervised by the site ecologist. Some areas may need to be cleared by hand to enable an appropriate level of search to be conducted.

If the woodland is to be lost, there will be a requirement for replacement planting. This should be carried out using the species of value to red squirrels detailed in Section 10.

Reptiles

Reptile mitigation is dependent on the potential impact on reptiles being assessed which in turn requires up-to-date survey data to enable an accurate estimate on both population and species assemblage to be made.

It has been established that the site offers potential reptile habitat with a combination of scrub, stone walls and open areas for basking.

In order to be able to assess the potential impact on reptiles, and to facilitate the formulation of a comprehensive mitigation strategy, there will be a requirement for further surveys to be carried out. These surveys must comply with the standard survey methodology as described in the Herpetofauna Workers Manual to ensure that an accurate and detailed picture of reptile occupation of the site is established.

This standard recognised methodology entails the setting out of ‘refugia’, usually bitumen felt squares of 0.5m x 0.5m in size. A minimum of 50 refugia should be set out around the site and then checked on five occasions, with a period of at least a week between each survey. All reptiles and amphibians encountered during the surveys will be recorded to species levels, and if possible, to sex and age class. Surveys must be carried out in appropriate environmental conditions.

10 Biodiversity Enhancement

Under Chapter 6 of Planning Policy Wales 10, planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This policy addresses the Section 6 Duty of the Environment (Wales) Act 2016 and results in the likelihood of planning applications being refused unless they can show a positive impact on biodiversity.

Red Squirrels

The following species are recommended for inclusion in the landscaping scheme to provide additional high value food sources for red squirrels.

- Oak; (*Quercus petraea*)
- sweet chestnut; (*Castanea sativa*)
- hazel; (*Corylus avellana*)
- cherry; (*Prunus avium*)
- European walnut; (*Juglans regia*)

Bat Roosts

It is also recommended that new bat accommodation is built into the new properties. There are a number of ‘Bat Tubes’ available which would be ideal for this purpose as they are built into the fabric of the buildings. These are very discreet as they are rendered over leaving only the small access point exposed. It is recommended that one bat tube is built into the elevation of each building facing the hedge on the northern boundary of the site where it will be unaffected by lighting, and

where the woodland provides habitat connectivity. These bat tubes must be clearly shown on the architect's drawings.

Hedges

It is recommended that this opportunity is taken to replant the defunct hedge on the site boundary and that the diversity of species is increased.

The following species are considered appropriate:

Hawthorn; (*Crataegus monogyna*)

Blackthorn; (*Prunus spinosa*)

Holly; (*Ilex aquifolium*)

Hazel; (*Corylus avellana*)

Elder; (*Sambucus nigra*)

Dog rose; (*Rosa canina*)

Guelder rose; (*Viburnum opulus*)

Rowan; (*Sorbus aucuparia*)

Whitebeam; (*Sorbus aria*)

Cherry; (*Prunus avium*)

Bird cherry; (*Prunus padus*)

Cherry plum; (*Prunus cerasifera*)

Crab apple; (*Malus sylvestris*)

Ornamental Planting

In some cases, such as landscaping within the gardens of the houses, it may be more appropriate to utilise exotic/ornamental species. Advice on beneficial species can be obtained from the North Wales Wildlife Trust at: <https://www.northwaleswildlifetrust.org.uk/take-action/wildlife-gardening>

There are however a number of plant species to avoid in any planting scheme for the site, as they can become invasive and/or cause long-term problems. The *Cotoneaster* genus is a prime example. Almost all of this species produce a profusion of flowers in spring which attract an equally profuse quantity of pollinating insects, particularly bees. The plant then produces a large crop of berries, which are eaten by birds and most 'wildlife gardening' sources heartily recommend the planting of *Cotoneasters*. The problem however lies with this attractiveness of the berries to birds. There is no way of controlling the spread of *Cotoneaster* into the wild via seeds deposited in bird's droppings. This spread can be over vast distances.

As a result, five *Cotoneasters* are listed as INNS under the Wildlife & Countryside Act. While it is not illegal to grow these plants in a garden situation, it is recommended that they are avoided due to this lack of control over the spread of the species into the wild. The five to avoid are *C. horizontalis*, *C. simonsii*, *C. integrifolius*, *C. Bullatus* & *C. microphyllus*.

Provided that these five are avoided, the planting of this species can be very beneficial to biodiversity in a garden situation.

The planting of *Buddleia* is also widely recommended in many sources. Again, care should be taken with regards to cultivar/species selection. While not listed as ‘invasive’ it is recommended that the planting of *B. davidii* is avoided. There are however some *Buddleias* worthy of consideration. Their common name of ‘butterfly bush’ is deserved and *B. x weyeriana* is a hybrid that is worth consideration along with *B. fallowiana alba*.

11 Legal Implications

11.1 Hedgehogs

The hedgehog is a priority species across North Wales, including Anglesey and is included in Section 7 of the Environment Wales Act (2016) as a species of importance to the maintenance and enhancement of Biodiversity in Wales.

11.2 Nesting Birds

Under the Wildlife and Countryside Act 1981, all nesting birds and their nests are protected. Once a bird places a single piece of material then it constitutes a nest. It is then an offence to cause damage to the bird, nest, eggs or chicks and immediate habitat which is likely to result in damage by causing the bird to desert its nest. This covers all bird species, with a small number of exceptions (pest species which can be controlled by special license).

In 2000, the Countryside and Rights of Way Act (CROW Act) was made law, strengthening the legal protection for many species and introducing a ‘reckless disturbance’ offence. Planning Authorities are also obliged to take nesting birds into account in relation to planning decisions following guidance from the Welsh Government detailed in Technical Advice Note (TAN) 5.

11.3 Red Squirrels

The red squirrel is classified as near threatened by the IUCN on the Red List and is listed under Appendix III of the Berne Convention. It is threatened in the UK and protected under Schedules 5 & 6 of the Wildlife & Countryside Act (as amended).

They are also a ‘Priority BAP Species’ listed under what is now Section 7 of the Environment Wales Act (2016) which places an obligation on all Competent Authorities to consider these species in all of their activities, including planning and development issues.

11.4 Reptiles

All British reptiles are protected under ‘Schedule 5’ of the Wildlife & Countryside Act 1981 (as amended). This legislation protects reptiles from deliberate killing, injury or unlicensed trade.

Reptiles are also included in Section 7 of the Environment Wales Act (2016) as species of importance to the maintenance and enhancement of Biodiversity in Wales.

12 Appendices

12.1 Site photographic record



The woodland strip on the northern site boundary



The woodland interior



Dense gorse scrub on the woodland edge



The scrub on the north-western site boundary



The watercourse which was dry at the time of the survey









Willow scrub along part of the watercourse



Bramble scrub on the southern site boundary

12.2 Phase 1 Habitat Map



| <u>Key</u> | |
|---|-----------------------|
|  | Broadleaved Woodland |
|  | Defunct Hedge |
|  | Improved Grassland |
|  | Scrub |
|  | Tall Ruderal |
|  | Watercourse |
| <i>Ue</i> | <i>Ulex europaeus</i> |
| <i>Sx</i> | <i>Salix spp</i> |

12.3 Review Table

| Name | Task | Date |
|-----------------|---------------|-------------|
| Chris Hall | Author | 22.06.2020 |
| Kate Williamson | Review | 23.06.2020 |
| Natalie Parry | Proof Reading | 25.06.2020 |