



**New Mount Elim Church  
Pontardawe**

**Preliminary Ecological Appraisal**

**June 2020**

# Acer Ecology

## REPORT CONTENTS

|      |                                                                                                                  |    |
|------|------------------------------------------------------------------------------------------------------------------|----|
| 1.   | INTRODUCTION .....                                                                                               | 1  |
| 1.1. | BRIEF .....                                                                                                      | 1  |
| 1.2. | SITE DESCRIPTION .....                                                                                           | 1  |
| 1.3. | PROPOSED WORKS .....                                                                                             | 1  |
| 1.4. | SCOPE OF THE STUDY .....                                                                                         | 1  |
| 1.5. | REPORTING .....                                                                                                  | 2  |
| 2.   | METHODS.....                                                                                                     | 3  |
| 2.1. | DESK STUDY.....                                                                                                  | 3  |
| 2.2. | FIELD STUDY .....                                                                                                | 4  |
| 3.   | RESULTS .....                                                                                                    | 11 |
| 3.1. | DESK STUDY.....                                                                                                  | 11 |
| 3.2. | FIELD SURVEY.....                                                                                                | 13 |
| 3.3. | HABITAT DESCRIPTIONS .....                                                                                       | 13 |
| 3.4. | PROTECTED AND NOTABLE SPECIES .....                                                                              | 19 |
| 4.   | ECOLOGICAL EVALUATION, LEGISLATION AND IMPACT ASSESSMENT.....                                                    | 27 |
| 4.1. | STATUTORY AND NON-STATUTORY DESIGNATED SITES.....                                                                | 27 |
| 4.2. | ASSESSMENT OF ECOLOGICAL VALUE OF ON-SITE SECTION 7, LBAP AND SINC HABITATS .....                                | 29 |
| 4.3. | ASSESSMENT OF ECOLOGICAL VALUE OF ON-SITE HABITATS WHICH DO NOT QUALIFY AS SECTION 7, LBAP AND SINC HABITAT..... | 29 |
| 4.4. | ASSESSMENT OF IMPACTS OF INVASIVE SPECIES.....                                                                   | 29 |
| 4.5. | PROTECTED AND NOTABLE SPECIES .....                                                                              | 29 |
| 5.   | REQUIRED ACTIONS .....                                                                                           | 34 |
| 5.1. | PROPOSAL DESIGN AMENDMENT (AVOIDANCE) .....                                                                      | 34 |
| 5.2. | FURTHER SURVEY WORK.....                                                                                         | 35 |
| 5.3. | PRECAUTIONARY MEASURES.....                                                                                      | 35 |
| 5.4. | MITIGATION MEASURES.....                                                                                         | 36 |
| 5.5. | COMPENSATION AND ENHANCEMENT MEASURES.....                                                                       | 36 |
| 5.6. | LICENSING .....                                                                                                  | 38 |
| 6.   | REFERENCES AND BIBLIOGRAPHY .....                                                                                | 39 |

# Acer Ecology

---

## PLANS

PLAN 1: LOCATION PLAN

PLAN 2: SITE LOCATION AND PROTECTED SITES PLAN (2KM BUFFER)

PLAN 3: HABITATS AND VEGETATION

PLAN 4: LOCATION OF WATER BODIES WITHIN 0.5KM OF SITE

PLAN 5: MITIGATION PLAN

## APPENDIX CONTENTS

APPENDIX 1: PROPOSED DEVELOPMENT WORKS

APPENDIX 2: LEGISLATION AND POLICY RELATING TO STATUTORY AND NON-STATUTORY DESIGNATED SITES

APPENDIX 3: CORRESPONDENCE RECEIVED

APPENDIX 4: GUIDELINES FOR ASSESSING THE POTENTIAL SUITABILITY OF A BUILDING AND PROPOSED DEVELOPMENT SITE FOR BATS

APPENDIX 5: DEFINITIONS OF SITE VALUE

APPENDIX 6: SPECIES RECORDED

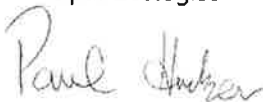
APPENDIX 7: OPEN-FRONTED NEST BOX

APPENDIX 8: STANDARD HOLE NEST BOX

APPENDIX 9: HOUSE SPARROW NEST BOX

APPENDIX 10: SCHWEGLER 1FR BAT TUBE

## Document Verification Table

| New Mount Elim Church, Pontardawe<br>Preliminary Ecological Appraisal |              |                              |                                                                                                                               |                                                                                                                                    |
|-----------------------------------------------------------------------|--------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Revision                                                              | Date         | Prepared by                  | Checked by                                                                                                                    | Verified by                                                                                                                        |
| 1.0                                                                   | 02 June 2020 | Melissa Northam<br>Ecologist | Rory Jones MCIEEM<br>Senior Ecologist<br> | Paul Hudson MCIEEM<br>Principal Ecologist<br> |

Acer Ecology Ltd accepts no responsibility or liability for the use for which this document is made, other than by the client for the purpose for which it was originally commissioned and prepared.

# Acer Ecology

## Summary

|                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Brief and Site Location</b>                         | Acer Ecology Ltd was commissioned by Alan Thomas to conduct a preliminary ecological appraisal of land at New Mount Elim Church, Brecon Road, Pontardawe, SA8 4PD, within the boundary of Neath Port Talbot County Borough Council (Ordnance Survey Grid Reference centred at: SN 7274 0469).                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Development Proposals</b>                           | The proposed development works comprise near complete clearance of the site to facilitate the construction of a church with meeting facilities and a car park. Precise details of the development are unavailable at the time of writing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Statutory and Non-Statutory Nature Designations</b> | There are no statutory or non-statutory designated sites immediately on or adjacent to the development site. The nearest site is 0.1km away. Consequently, it is not envisaged that any such sites will be affected by the development works.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Impacts on Habitats of Value</b>                    | <p>No parts of the site are currently considered to be of international, national, regional, district vale or high local value.</p> <p>Whilst the loss of the on-site habitats would be unlikely to have a significant impact outside of the context of the site, it would nevertheless be desirable that the impacts be either minimised or appropriately mitigated where possible.</p>                                                                                                                                                                                                                                                                                                                                                 |
| <b>Impacts on Protected and Notable Species</b>        | The proposed development could potentially have adverse impacts of varying degrees on a range of legally protected species, including nesting birds, common reptiles and commuting/foraging bats.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Invasive Non-native Species</b>                     | None recorded.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Requirements for Additional Survey</b>              | Further surveys to determine the presence or likely absence of reptiles are ongoing at the time of writing. These are dealt with in a separate report (Acer Ecology, 2020).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Licensing Requirements</b>                          | No European Protected Species development licenses are required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Recommendations</b>                                 | <p>The following provisional recommendations have been developed based on the development proposals available at the time of writing:</p> <ul style="list-style-type: none"><li>• Proposal Design Amendment;</li><li>• Further surveys for reptiles (on-going);</li><li>• Precautionary measures, including vegetation clearance, species deterrence measures and wildlife-friendly construction practices;</li><li>• Mitigation measures including sensitive lighting strategy; and</li><li>• Compensatory and enhancement measures.</li></ul> <p>It should be noted that they may be subject to change upon completion of further surveys outlined in Section 5.</p> <p>Details of mitigation are outlined in detail in Section 5.</p> |

## **1. Introduction**

### **1.1. Brief**

Acer Ecology Ltd was commissioned by Alan Thomas to conduct a preliminary ecological appraisal of land at New Mount Elim Church, Brecon Road, Pontardawe, SA8 4PD, within the boundary of Neath Port Talbot County Borough Council (Ordnance Survey Grid Reference centred at: SN 7267 0459). The purpose of the assessment was to document the baseline ecological condition of the survey area, which comprises the red line boundary shown in Plan 1. This included identification of any designated sites or habitats that could be affected by the proposed works, and identification of or potential for, protected and/or otherwise notable species of conservation interest that could be affected. Potential ecological constraints were identified, and subsequent recommendations developed.

This assessment will provide initial recommendations based on the development proposals available at the time of writing. They should be revised upon finalisation of the design.

### **1.2. Site Description**

The site proposed for development measures approximately 0.11ha in area and comprises an area of scrub and individual trees on the corner of a street, adjacent to a nursing home. It is situated at the eastern boundary of Pontardawe, and the landscape to the west and south-west comprises high density housing and roads. To the north and east of the site are areas of woodland, and approximately 0.2km to the east is the River Tawe. The site's northern boundary lies approximately 60m above sea level and slopes gently downwards to 50m at its southern boundary.

### **1.3. Proposed Works**

The proposed development works comprise near complete clearance of the site to facilitate the construction of a church with meeting facilities and a car park. Precise details of the development are unavailable at the time of writing.

The proposed development plan is provided in Appendix 1.

### **1.4. Scope of the Study**

The study comprised the following:

- A desk study to identify existing information on statutory and non-statutory sites of nature conservation interest, and records of notable or protected habitats or species within the site and its environs;
- A Phase 1 Habitat Survey of the site, extended to search for evidence of, and potential for, protected fauna; and
- Identification of potential ecological constraints to the proposed works at the site and assessments of impacts including appropriate mitigation measures where necessary.

## **1.5. Reporting**

This report aims to:

- Outline the methodology used during the survey;
- Present the results of the survey;
- Provide an ecological evaluation of on-site habitats, including an assessment of the potential for protected species;
- Provide an assessment of the potential impacts of the development proposals on ecological receptors identified through the desk and field study;
- Provide an assessment of the potential ecological constraints to the proposals; and
- Provide recommendations for further survey, avoidance, mitigation and enhancement where appropriate.

# Acer Ecology

## 2. Methods

The survey was undertaken following standard methods as described in the Chartered Institute of Ecology and Environmental Management (CIEEM) Preliminary Ecological Appraisal 2016 guidelines, and the Phase 1 Habitat Survey methodology (Joint Nature Conservation Committee, 2010). The methodology utilised for the survey work comprised a desk study, habitat survey and a survey of protected and notable species.

### 2.1. Desk Study

#### 2.1.1. Protected Sites, Habitats and Species

Information on designated sites (Table 1) and protected species was obtained from the following sources (Table 2). The legislation and policy relating to statutory and non-statutory designated sites can be found in Appendix 2. Plan 2 shows the protected sites in relation to the proposed development site.

Table 1: Summary of Designated Sites and Other Abbreviations

| Abbreviations                              |        |
|--------------------------------------------|--------|
| Special Areas of Conservation              | SAC    |
| Special Protected Area                     | SPA    |
| Site of Special Scientific Interest        | SSSI   |
| National Nature Reserve                    | NNR    |
| Local Nature Reserve                       | LNR    |
| Site of Importance for Nature Conservation | SINC   |
| Ancient Semi-Natural Woodland              | ASNW   |
| Restored Ancient Woodland Site             | RAWS   |
| Plantation on Ancient Woodland Site        | PAWS   |
| South East Wales Biological Records Centre | SEWBRc |
| Natural Resources Wales                    | NRW    |

Table 2: Sources of Data

| Source                                                        | Data                                                                                           | Radius of Search                                                                                         |
|---------------------------------------------------------------|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| NRW<br>Geographical<br>Information<br>Systems (GIS)<br>Layers | Statutory and non-statutory nature<br>conservation designated sites<br><br>ASNW, RAWS and PAWS | Ramsar/SACs/SPAs/SSSIs/NNRs)/LNRs – 2km <sup>1</sup> .<br>SACs (designated for bats) - 10km.<br><br>2km. |
| SEWBRc                                                        | Protected species records<br><br>SINCs                                                         | 1km.<br><br>1km.                                                                                         |

All available records of bat roosts were considered. For other species, only records collected within the last 10 years were considered relevant.

<sup>1</sup> The citations of all the SSSIs and SACs within 2km of the site were consulted to determine if any of them had features or species which could be affected by the development proposals.

## **2.1.2. Landscape Context**

The site and wider landscape were assessed and characterised using aerial images, Ordnance Survey maps and SEWBRc NRW phase 1 habitat maps dating from the 1990s. The presence of off-site features and habitats, which add to the ecological value within the wider area (for example, ponds within 0.5km of the site) were identified. Where appropriate, such features were scoped into the detailed assessment of impacts presented in Section 4 below.

## **2.1.3. Ancient Woodland**

Although ancient woodland is not a designated site as such, it is often listed as a designated site due to its ecological significance and associated protection. Ancient woodland has therefore been included within the non-statutory designated site section of this report.

## **2.1.4. Planning Authority**

The Neath Port Talbot County Borough Council Planning portal<sup>2</sup> was consulted to determine if any previous survey information was available for the site, or immediate surroundings.

An internet-based search of the Neath Port Talbot County Borough Council Action Plan (BAP) was undertaken.

## **2.2. Field Study**

### **2.2.1. Personnel**

The field survey was undertaken in good weather on the 6th May 2020 by Melissa Northam.

### **2.2.2. Vegetation and Habitats**

The vegetation and habitat types present within the survey area were categorised and mapped in accordance with the standard<sup>3</sup> Phase 1 Habitat assessment methodology (Joint Nature Conservation Committee, 2010), dominant and conspicuous plant species were recorded for each habitat. Target notes were used to record information on features of ecological interest, such as evidence of, or habitats with potential to support protected species. Following the completion of the survey, a colour-coded habitat plan was digitised using QGIS to show the extent and distribution of the different habitat types present within the site (see Plan 3).

Hedgerows were not recorded on site.

---

<sup>2</sup> <https://planning.npt.gov.uk/welcome.asp>

<sup>3</sup> Some additional categories were also used if applicable e.g. hard standing and Japanese knotweed.

# Acer Ecology

---

The presence of invasive plant species listed on Schedule 9<sup>4</sup> of the Wildlife and Countryside Act 1981 (as amended), such as Himalayan balsam (*Impatiens glandulifera*), giant hogweed (*Heracleum mantegazzianum*) and Japanese knotweed (*Fallopia japonica*) were also noted during the survey, if present.

## 2.2.3. Protected and Notable Species

During the survey, emphasis was placed on searching for evidence of, and habitats with, potential to support protected or notable species, especially species meeting any of the following criteria:

- Listed under the and the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species and Planning (various amendments) (England and Wales) Regulations 2018, until and unless superseded by The Conservation of Habitats and Species (Amendment) (EU Exit) [‘CHSAEU’] Regulations 2019;
- Listed under Section 7 of the Environment (Wales) Act 2016 as being of principal importance for maintaining and enhancing biodiversity in Wales;
- Listed as a local priority for conservation, for example in the relevant Local Biodiversity Action Plan (LBAP);
- Red Listed using International Union for the Conservation of Nature (IUCN) criteria (e.g. in one of the UK Species Status Project<sup>5</sup> reviews, in the Species of Conservation Concern Red, Amber or Near Threatened List<sup>6</sup>, Birds of Conservation Concern in Wales<sup>7</sup>, or, where a more recent assessment of the taxonomic group has not yet been undertaken, listed in a Red Data Book);
- Listed as a Nationally Rare or Nationally Scarce species (e.g. in one of the Species Status Project reviews) or listed as a Nationally Notable species where a more recent assessment of the taxonomic group has not yet been undertaken; and/or
- Endemic to a country or geographic location (it is appropriate to recognise endemic sub-species, phenotypes, or cultural behaviours of a population that are unique to a particular place).

It should be noted that only those species with potential to be present on-site are mentioned within this report. The methodologies used were as follows:

### **Birds**

Any birds observed during the field survey were recorded, in addition to features capable of supporting nesting birds (e.g. trees, hedgerows, buildings, bramble, ruderal vegetation and rough grassland etc.). The site was also assessed for its actual and potential suitability to support Wildlife and Countryside Act 1981 (as amended) Schedule 1 species.

---

<sup>4</sup> Schedule 9 species of plants and animals are ones that do not naturally occur in Great Britain but have become established in the wild and represent a threat to the natural fauna and flora.

<sup>5</sup> The Species Status project is the successor to the JNCC's Species Status Assessment project, providing up-to-date assessments of the threat status of various taxa using the internationally accepted Red List guidelines (<http://jncc.defra.gov.uk/page-1773>).

<sup>6</sup> Eaton *et al.* (2015) Birds of conservation concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. British Birds 108: 708-746.

<sup>7</sup> Johnstone, I. and Bladwell, S. (2016) Birds of Conservation Concern in Wales 3: the population status of birds in Wales. Birds in Wales 13 (1).

# Acer Ecology

---

A comprehensive bird survey, such as a breeding bird survey, was not undertaken as this was beyond the scope of the assessment.

## **Bats**

### Preliminary Ground-level Roost Assessment

A preliminary ground-level roost assessment of the trees within the survey area was undertaken looking for features that bats could use for roosting (Potential Roost Features<sup>8</sup> (PRF) and evidence of bats (i.e. droppings in, around or below a PRF; odour emanating from a PRF; audible squeaking at dusk or during warm weather; or staining below the PRF). A systematic inspection was carried out around all accessible aspects of the tree, from both close to the trunk and further away. The location of the trees is shown on **Error! Reference source not found.3.**

The trees were assessed for their suitability to support roosting and hibernating bats in accordance with Table 4.1 of the Bat Conservation Trusts Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016). A high-powered torch (Clulite) and a ladder were used as appropriate during the survey.

### Buildings Assessment

#### Daytime External Structure Inspection

A single storey metal housing unit for an electrical sub-station is located within the boundary of the survey area. A systematic visual inspection was made of the exterior of the structure, situated in the western section of the survey area, looking for features that bats could use for entry/ exit and roosting<sup>9</sup> and to search for the presence of bats or evidence of bat use, such as droppings, feeding remains, urine staining, scratch marks and the remains of dead bats. The visual inspection was undertaken on the 6<sup>th</sup> May 2020 by Melissa Northam but did not include a full building survey/ Preliminary Roost Assessment. A high-powered torch (Clulite) was used as appropriate during the visual inspection.

The internal parts of the structure were inaccessible at the time of survey.

The location of the structure (S1) is shown on Plan 3.

### Terrestrial Habitat Assessment

A preliminary assessment of the value of the site for bats (and any potential roost sites therein) was made in accordance with Table 4.1 of the Bat Surveys for Professional Ecologists (Collins, 2016) (see Appendix 4). The assessment was based on the relative abundance and quality of habitat features within the site, and surrounding landscape, suitable for roosting, foraging and commuting bats.

---

<sup>8</sup> Potential Roost Features that bats may use identified by Andrews include: woodpecker-holes; squirrel-holes; knot-holes; pruning-cuts; tear-outs; wounds; cankers; compression-forks; butt-rot; lightning strikes; hazard-beams; subsidence-cracks; shearing cracks; transverse cracks; welds; lifting bark; frost-cracks; fluting and ivy.

<sup>9</sup> Bats may utilise gaps as small as 8mm by 20mm (Bat Conservation Trust, Cluster flies leaflet)

# Acer Ecology

---

## ***Dormice***

The scrub on site and the nearby woodland, which lies off-site, was assessed for their suitability to support dormice (*Muscardinus avellanarius*) with reference to guidance such as The Dormouse Conservation Handbook (Bright, Morris & Mitchell-Jones, 2006). The structure and composition of these habitats within the site were assessed with respect to the presence of flower, fruit or nut-bearing food-plants such as hazel (*Corylus avellana*) (a favoured food-plant of dormice), oak (*Quercus* sp.), honeysuckle (*Lonicera periclymenum*), bramble (*Rubus fruticosus* agg.), sycamore (*Acer pseudoplatanus*), as well as other trees and shrubs listed in Bright, Morris & Mitchell-Jones (2006) as being of value to dormice. In addition, connectivity to other areas of suitable habitat in the wider landscape, such as hedgerows and woodland, was assessed.

A search for hazelnuts opened by dormice was undertaken to aid determination of their presence<sup>10</sup>. No hazel was present on site and therefore it was not possible to undertake a search for hazelnut shells to determine if they had been opened by dormice.

A full nest tube/box survey was not undertaken as this was beyond the scope of the assessment.

## ***Great Crested Newts***

The survey area was appraised for its suitability to support great crested newts (*Triturus cristatus*). The assessment was based on guidance outlined in the Herpetofauna Workers' Manual (Joint Nature Conservation Committee, 2003) and the Great Crested Newt Conservation Handbook (Langton, Beckett & Foster, 2001).

Ordnance Survey maps and aerial images of the land surrounding the site were consulted to determine if any water bodies were present within the site or within 0.5km of it. Whilst no ponds were identified within the study area (see Plan 4), several ditches offered potentially suitable water bodies. However, upon visiting, water bodies were either found to have been built over by residential developments or within private property.

Swansea Canal and the river Tawe also lie within 0.5km of the study area. However, flowing water is considered to act as a barrier to great crested newt migration (English Nature, 2001). These water bodies were therefore deemed unsuitable for supporting great crested newts.

Furthermore, major highways are considered to act as barriers to great crested newt migration (English Nature, 2001). Flowing water bodies and standing water bodies within 0.5km of the site but separated from the site by hard barriers, therefore, are considered unlikely to support great crested newts.

A full great crested newt survey was not undertaken, as this was beyond the scope of this assessment.

---

<sup>10</sup> As far as was practical given the vegetation structure within the survey area, the guidance set out in The Dormouse Conservation Handbook (Bright, Morris & Mitchell-Jones, 2006) was adhered to, whereby three 10m x 10m areas of heavily fruiting hazel were searched for 20 minutes each, therefore enabling an 80% confidence rating of dormouse absence in these areas.

# Acer Ecology

---

## **Otters**

A preliminary assessment for signs of otter (*Lutra lutra*) was undertaken following the advice provided by Strachan & Jefferies (1996) and Chanin (2003). Where access was available, the banks of the Swansea Canal (approximately 80m to the south-east) and the River Tawe (approximately 200m to the south-east) were searched for evidence of otter activity within 10m of the bank. Field signs of otter were recorded if present including spraints (faeces showing food remains), footprints, feeding remains and couches (above ground resting sites normally in thick vegetation cover), as well as potential or actual breeding sites and resting places (i.e. holts or natal dens) which are usually found under roots of bank side trees or in rock piles.

A full otter survey was not undertaken as this was beyond the scope of the assessment.

## **Water Voles**

An assessment of water bodies adjacent to the survey area was undertaken to determine their suitability for supporting water voles (*Arvicola amphibius*), following methods set out in the Water Vole Conservation Handbook (Strachan & Moorhouse, 2006). In addition, a search for evidence of activity was undertaken, including droppings, latrines, burrows, footprints and feeding lawns, of any areas considered suitable.

A full water vole survey was not undertaken as this was beyond the scope of this assessment.

## **White-Clawed Crayfish**

An assessment of the water bodies adjacent to the survey area was undertaken to determine their suitability to support white-clawed crayfish (*Austropotamobius pallipes*), based on the habitat requirements set out in the Ecology of the White-Clawed Crayfish Handbook (Holdich, 2003). Specifically, the presence of undermined/overhanging banks, soft banks for burrows, cobble and rock substrate, submerged refugia and macrophytes.

A full white-clawed crayfish survey was not undertaken as this was beyond the scope of the assessment.

## **Badgers**

Earth embankments, wooded copses, hedgerows and dense bramble beds are habitat features that often contain evidence of badger (*Meles meles*). Where present on-site and within a 30m buffer adjacent to the site these and other suitable habitat features were searched for such evidence. Where present, the location of badger signs such as setts, runs, dung pits or latrines, prints, hair and foraging snuffle holes were recorded.

A full badger survey was not undertaken as it was beyond the scope of this assessment.

## **Reptiles**

An assessment of the suitability of on-site habitats to support reptiles was made. Reptiles require a diverse range of habitats to meet their needs such as hedgerows, scrub, rough grassland, woodpiles, rubble, banks and compost heaps. The potential of the site to provide hibernation opportunities and spring/summer/autumn habitat was also assessed, with reference to guidance provided in the Herpetofauna Workers' Manual (Joint Nature Conservation Committee, 2003), the Reptile Management Handbook (Edgar, Foster & Baker, 2011) and the Reptile Mitigation Guidelines Technical Note TIN 102 (Natural England, 2013). The following factors were considered: vegetation type and structure; insolation (sun exposure); slope aspect; topography; surface geology; habitat connectivity; habitat size; prey abundance; refuge opportunity; hibernation opportunity; egg-laying potential for grass snake (*Natrix natrix*); public pressure; percentage of shade; levels of disturbance and management regime.

A targeted presence/likely absence reptile survey was not undertaken as it was beyond the scope of this assessment.

## **Marsh Fritillary & Small Pearl-Bordered Fritillary**

The survey included a search for the larval food plant of the marsh fritillary butterfly (*Euphydryas aurinia*), devil's bit scabious (*Succisa pratensis*).

The survey also included a search for the larval food plants of the small pearl-bordered fritillary butterfly (*Boloria selene*), common dog violet (*Viola riviniana*) and marsh violet (*Viola palustris*). The small pearl-bordered fritillary emerges from mid-May and so a search for adults was also undertaken.

A full marsh fritillary and small pearl-bordered fritillary survey was not undertaken as it was beyond the scope of this assessment.

## **Other Species**

General habitat suitability and incidental sightings of other animal species were also noted.

### **2.2.4. Assessment of Ecological Value**

The value of the habitats and features of the site have been provisionally evaluated and graded in accordance with a geographical frame of reference as detailed in Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland (CIEEM, 2018). The level of value of specific ecological receptors is assigned using a geographic frame of reference, i.e. international value being most important, then national, regional, county, district, local and, lastly, within the immediate zone of influence of the site only. Brief descriptions of how Acer Ecology interprets these categories are set out in Appendix 5.

## **2.2.5. Constraints and Limitations**

### General Temporal Constraints

Any ecological survey can only identify what was present on-site at the time the survey was conducted and habitat usage by species can change over time.

### Incomplete Survey Information

Full surveys for the protected species listed previously have not yet been carried out. For some species of fauna for which evidence has been found or which are considered likely to occur on site, further targeted survey is advisable at a more appropriate time of year (see Section 5).

### Access

#### Structures on site

Access to carry out an internal inspection of the electrical sub-station for evidence of bat presence was not possible at the time of survey.

#### Restricted Access to Water Bodies Within 0.5km of Site

Several ditches within 0.5km of the site could not be accessed as some were situated on private land and access permissions had not been agreed at the time of the survey. However, given the absence of suitable waterbodies for great crested newts on site and a lack of records returned by SEWBRcC as part of the data search, this is not considered to be a significant survey constraint and it is considered unlikely to have altered the assessments made.

## 3. Results

### 3.1. Desk Study

#### 3.1.1. Statutory Nature Conservation Designated Sites

##### Statutory Sites (SACs or SSSIs) Designated for Bats within 10km of Site

No SACs or SSSIs specially designated for bats lie within 10km of the site.

##### SACs within 2km of Site

There are no SACs designated for their conservation value within a 2 km search radius of the site.

##### SSSIs within 2km of Site

There are four SSSIs designated for their conservation value within a 2 km search radius of the site. These are listed in order of proximity below:

- Frondeg SSSI which is located approximately 1.4km to the north-west of the church. This SSSI is designated for 'its neutral grasslands, fen - meadows and wet grassland, which are host to several uncommon plant species';
- Cefn Gwrhyd, Rhydyfro SSSI, located approximately 1.6km to the north of the church. This site is described as 'An upland area supporting types of wetland habitats uncommon in the county';
- Cilybebyll SSSI, located approximately 2km to the north-east of the church. This SSSI is designated for its 'species-rich grasslands and wet pastures, which are host to several uncommon plant species'; and
- Coed Cwm Du, Cilmaengwyn SSSI, located approximately 2km to the north-east of the church. This site is described as 'A predominantly sessile oak woodland with ash, elm, birch and alder locally abundant, and damp base rich flush area typical of such situations in the coalfield. Poorly drained wet meadows along the upper fringes of western slopes of the valley support stands of *Osumunda regalis*.'

##### NNRs

No NNRs are present within 2km of the site.

##### LNRs

There are two LNRs within 2km of the site:

- Cwm Du Glen and Glanrhyd Plantation LNR is located approximately 0.8km to the west of the church. This LNR is a narrow gorge which offers scenic walking routes; and

---

# Acer Ecology

---

- Swansea Canal LNR, located approximately 1.9km to the north-east of the church, which 'starts at The Swansea Canal Nature reserve in Godre'r Graig and is a wildlife lover's dream with an abundance of local species to be seen throughout the walk.'

## **3.1.2. Non-statutory Nature Conservation Designated Sites**

### SINCS

Three SINCS were recorded within 1km of the study area. These were:

- Swansea Canal SINC, located approximately 0.08km to the east of the church. The SINC's qualifying features are 'H13 Standing open water and canals';
- Riverside Industrial Estate SINC, located approximately 0.59km to the north-east of the church. The SINC is designated as it supports 'mosaic habitat with a strong willow car component, together with calcareous and wet grassland and large areas of previously disturbed ground with typical species including Red Bartsia'; and
- Cwm Du Glen and Glanrhyd Plantation SINC, located approximately 0.86km to the south-west of the church. Its citation states that it is 'dominated by mature broadleaved woodland on either side of the 'Cwm' (valley). A large field of horse-grazed marshy grassland is at the centre of the site, and some additional wet grasslands are scattered throughout. A number of important lower plant species have been recorded on deadwood, and a number of Red and Amber and Section 42 listed bird species are present throughout the site.'

### Ancient Woodland

There are 64 areas of ASNW located within 2km of the proposed development site, the nearest of which lies approximately 0.1km to the west of the site. In addition, 19 Restored Ancient Woodland Site (RAWS) and two Ancient Woodland Sites of Unknown Category are present within the same search radius.

Considering the small scale of the works, none of these woodlands are anticipated to be affected by works. They are therefore not mentioned further in this report.

## 3.2. Field Survey

### 3.2.1. Habitats and Vegetation

The results of the general survey of habitats and vegetation are shown on Plan 3. A botanical species list is provided in Appendix 6.

### 3.2.2. Summary of Habitats Present within the Site

The site consists of eight elements which are described in detail below. These comprise:

- Dense Scrub (A2.1);
- Ephemeral and Short Perennial Vegetation (J1.3);
- Fence (J3.4);
- Wall (J2.5);
- Boundary Removed (J2.7);
- Building (J3.6);
- Tree<sup>11</sup> (no alphanumeric code provided) and
- Hard Standing (no alphanumeric code provided);

## 3.3. Habitat Descriptions

### 3.3.1. Dense Scrub (A2.1)

Dense seral vegetation, approximately 700m sq., with occasional woody shrubs, Willow (*Salix* spp.), dog-rose (*Rosa canina* agg.) and Buddleia (*Buddleja davidii*), less than 5 metres tall. Herbaceous flora ranged in height, from low growing sprawling species, through to upright grasses standing at approximately 1 metre (see photos 1 and 2). Such habitat dominated the boundaries and centre of the site.

Abundant species comprise bramble, red clover (*Trifolium pratense*), greater plantain (*Plantago major*), ribwort plantain (*Plantago lanceolata*), pendulous sedge (*Carex pendula*) and meadow buttercup (*Ranunculus acris*).

Frequent and occasional species comprise common vetch (*Vicia sativa*), scarlet pimpernel (*Anagallis arvensis*), common birds-foot-trefoil (*Lotus corniculatus*), herb-Robert (*Geranium robertianum*), wall speedwell (*Veronica arvensis*), germander speedwell (*Veronica chamaedrys*), false oat grass (*Arrhenatherum elatius*), annual meadow-grass (*Poa annua*), common knapweed (*Centaurea nigra*), cow parsley (*Anthriscus sylvestris*), common nettle (*Urtica dioica*) and water horsetail (*Equisetum fluviatile*). In addition, rare occurrences of blue bell (*Hyacinthoides non-scripta*), garden columbine (*Aquilegia* sp.) and foxglove (*Digitalis purpurea*) were present.

---

<sup>11</sup> Habitat not included within the Phase 1 Handbook (JNCC 2010)

# Acer Ecology

---

In addition to the flora, several piles of wood chippings were sighted scattered throughout the scrub, along with areas of decaying tree trunks and branches (see photos 3 and 4).

Immediately below the wall running along the south-west boundary is a sloped bank which falls just outside of the survey area boundary, approximately 1 metre in depth. Meadow buttercup, yorkshire fog (*Holcus lanatus*) and cocks-foot (*Dactylis glomerata*) were abundant, with frequent occurrences of cow parsley, common vetch.

Photo 1: View of scrub in the eastern corner



Photo 2: View of scrub looking south-east from the centre of the survey area



Photo 3: Wood chipping piles within the central area of scrub



Photo 4: Decaying logs to the south-west



## 3.3.2. Ephemeral and Short Perennial Vegetation (J1.3)

Leading on from hard standing at the current site entrance, patchy herbaceous species sprawled across thin soil (see photo 5). Whilst there were no dominant species as such, frequent species consisted of sticky mouse-ear (*Cerastium glomeratum*), scarlet pimpernel, oxeye daisy (*Leucanthemum vulgare*), meadow buttercup, red clover, common vetch, daisy (*Bellis perennis*), lesser trefoil (*Trifolium dubium*) and common birds-foot-trefoil.

The habitat was approximately 25 metres in length, 4 metres wide and had a noticeable slope leading up to the north-west side of the survey area. As it plateaued it led to the south-west, before it was surrounded by scrub (see photo 6).

# Acer Ecology

---

Photo 5: Patchy herbaceous species sprawled across thin soil



Photo 6: Habitat levelling off before transitioning to scrub



## 3.3.3. Fence (J2.1)

A wood panel fence approximately 12 metres in length ran along the north-east boundary, separating the survey area from the adjacent nursing home (see photos 7 and 8). Whilst such a feature does not lend itself to a habitat of interest itself, an inspection for signs of fauna use (such as badger hair, bite marks and bee nests) was carried out.

Photo 7: Wood panel fencing running along the north-east boundary



Photo 8: Wood panel fencing running along the north-east boundary



## 3.3.4. Wall (J2.5)

A stone and cement boundary wall, approximately 20 metres in length, ran along the south-west boundary (see photo 9). Similar retaining walls run along the south-east boundary, adjacent to the hard standing and encircling the electrical sub-station (see photos 10 and 11). A further section runs along the north-east boundary (this section forms part of the adjacent nursing home retaining wall). An inspection of both the internal and external faces (relative to the survey area) of the walls was carried out where possible.

The wall running along the north-east boundary is approximately 1 metre in height and has weakened areas of cement. It is heavily covered in ivy (*Hedera helix*) on both the internal and external faces.

The retaining walls were all in a good state of repair with few areas of loose cement (see photo 12). Few herbs were growing out of wall as a result, and any present primarily comprised herb-robert.

# Acer Ecology

---

Photo 9: Stone and cement boundary wall overgrown with Ivy



Photo 10: Retaining wall running south-east, adjacent to the hard standing



Photo 11: Section of retaining wall around the sub-station



Photo 12: Crumbled cement and loose stones on the south-east boundary wall.



## 3.3.5. Boundary Removed (J2.7)

The aforementioned fence to the north-east boundary has had a length, approximately 5 metres, removed (see photo 13). This may aid fauna in accessing the survey area at present.

Photo 13: Section of wooden panel fencing removed



# Acer Ecology

## 3.3.6. Building (J2.6)

A single storey metal and glass fibre housing unit, approximately 4m sq., for an electrical sub-station is located within the boundary of the survey area (see photo 14) but falls outside of the proposed development plan.

It is situated to the west, in a sunken compound and encircled by hard standing and a retaining wall (see photos 15 and 16). Access to the compound is via a separate locked gate off Coed Cae. Voids are present between the roof and the walls (see photo 17)

Photo 14: Single storey metal and glass fibre housing unit



Photo 15: The structure is situated in a sunken compound



Photo 16: A retaining wall surrounds the structure, with access via Coed Cae



Photo 17: voids can be seen between the roof and walls of the structure



## 3.3.7. Tree (no alphanumeric code provided)

Few trees were on site and when present, where in small groups. As such, they did not constitute any form of woodland. No one species dominated and none offered features associated with veteran trees.

Several sapling and immature trees of varying height were situated along the south-east and north-west boundaries (see photos 18 and 17). Species present were oak, sycamore and downy birch (*Betula pubescens*).

# Acer Ecology

---

Two mature trees were located on-site along the north-east boundary, adjacent to the electrical sub-station and outside of the proposed development plans (see photos 20 to 22). A mature cherry tree (*Prunus sp.*), approximately 5 metres in height and a fir (*Abies sp.*), approximately 7 metres in height.

Photo 18: Sapling and immature trees of varying height situated along the south-east boundary



Photo 19: Sapling and immature trees of varying height situated along the north-west boundary



Photo 20: Mature fir tree along the north-west boundary



Photo 21: Mature cherry tree along the north-west boundary



Photo 22: Both mature trees fall outside of the area of proposed development but fall within the survey area itself



# Acer Ecology

---

## 3.3.8. Hard Standing (no alphanumeric code provided)

The existing entrance to the survey area consists of a sloped tarmac drive leading off the Coed Cae and Brecon Road junction (see photo 23). It sits at the most southerly point of the survey area. After approximately 10 metres it degrades into ephemeral and short perennial vegetation (see photo 24).

Paved Hard standing also encircles the electrical sub-station at a width of 1 metre.

The hard standing is in loose condition in places and affords growing spaces for some herbaceous flora such as oxeye, red clover and lesser trefoil. No one species dominates.

Photo 23: Sloped tarmac drive leading off the Coed Cae and Brecon Road junction



Photo 24: Degradation into ephemeral and short perennial vegetation



## 3.4. Protected and Notable Species

### 3.4.1. Notable Plant Species

#### Data Trawl Results

SEWBRc provided no records of protected plant species or species of principal importance listed under the Environment (Wales) Act 2016 from within 2km of the site proposed for development.

#### Field Survey Results

No plant species, which individually are considered to be of either of national, regional or local significance were recorded on the site. However, the wide variety of flora species found on site does suggest that the site could be of moderate species-richness.

### 3.4.2. Birds

#### Desk Study Results

SEWBRc provided numerous records for birds within 1km of the site. The following table shows nesting birds associated with the habitats present on-site and their conservation status:

# Acer Ecology

Table 3: Records of Birds

| Species                  |                                | Schedule 1 | Section 7 list – Environment Act Wales | UK BAP | Red list <sup>12</sup> | Amber list <sup>13</sup> |
|--------------------------|--------------------------------|------------|----------------------------------------|--------|------------------------|--------------------------|
| Bullfinch                | <i>Pyrrhula pyrrhula</i>       |            | Yes                                    | Yes    |                        |                          |
| Coal tit                 | <i>Parus ater</i>              |            |                                        |        |                        | Yes                      |
| Dunnock                  | <i>Prunella modularis</i>      |            | Yes                                    | Yes    |                        | Yes                      |
| Dipper                   | <i>Cinclus cinclus</i>         |            |                                        |        |                        | Yes                      |
| Goldcrest                | <i>Carduelis carduelis</i>     |            |                                        |        |                        | Yes                      |
| Herring gull             | <i>Larus argentatus</i>        |            | Yes                                    |        | Yes                    |                          |
| Lesser Black-backed Gull | <i>Larus fuscus</i>            |            |                                        |        |                        | Yes                      |
| Mallard                  | <i>Anas platyrhynchos</i>      |            |                                        |        |                        | Yes                      |
| Red kite                 | <i>Milvus milvus</i>           | Yes        |                                        |        |                        |                          |
| Redwing                  | <i>Turdus iliacus</i>          | Yes        |                                        |        | Yes                    |                          |
| Sand Martin              | <i>Riparia riparia</i>         |            |                                        |        |                        | Yes                      |
| Song thrush              | <i>Turdus philomelos</i>       |            | Yes                                    | Yes    | Yes                    |                          |
| Starling                 | <i>Sturnus vulgaris</i>        |            | Yes                                    | Yes    | Yes                    |                          |
| Swift                    | <i>Apus apus</i>               |            |                                        |        |                        | Yes                      |
| Wood warbler             | <i>Phylloscopus sibilatrix</i> |            |                                        |        | Yes                    |                          |

## Field Survey Results

No incidental sightings of birds on site occurred during the survey period. Off-site sightings are shown in table 4.

Habitats on site are considered to be of low potential suitability for nesting birds due to few suitable trees being present on site and evidence of public access on site which may deter scrub and ground nesting species.

Habitats on site offer moderate potential suitability for use by foraging birds due to the presence of scrub, ephemeral vegetation, which support invertebrates, and fruiting plants such as bramble which may support frugivorous species.

The site offers moderate potential connectivity to the wider landscape for birds.

<sup>12</sup> Bird species of high conservation concern, such as those whose population or range is rapidly declining, recently or historically, and those of global conservation concern.

<sup>13</sup> Bird species of medium conservation concern, such as those whose population is in moderate decline, rare breeders, internationally important and localised species and those of unfavourable conservation status in Europe.

# Acer Ecology

Table 4: Birds sighted immediately off-site

| Species       |                               | Schedule 1 | Section 7 list – Environment Act Wales | UK BAP | Red list <sup>14</sup> | Amber list <sup>15</sup> |
|---------------|-------------------------------|------------|----------------------------------------|--------|------------------------|--------------------------|
| House sparrow | <i>Passer domesticus</i>      |            | Yes                                    | Yes    | Yes                    |                          |
| Chiff chaff   | <i>Phylloscopus collybita</i> |            |                                        |        |                        |                          |

## 3.4.3. Bats

### Desk Study Results

The data search returned a total of seven records of bat roosts within 1km of the site. The roost records are summarised in the table below.

Table 5: Bat Roost Records

| Species                                              | Total Number of Records | Distance to Nearest Record | Most Recent Record | Maximum Count |
|------------------------------------------------------|-------------------------|----------------------------|--------------------|---------------|
| Soprano pipistrelle ( <i>Pipistrellus pygmaeus</i> ) | 1                       | 0.26km                     | 2007               | 1             |
| Brown long-eared ( <i>Plecotus auritus</i> )         | 1 (maternity roost)     | 0.32km                     | 2009               | 7             |
| Noctule ( <i>Nyctalus noctula</i> )                  | 1                       | 0.32km                     | 2007               | 1             |
| Pipistrelle bat species                              | 4                       | 0.32km                     | 2007               | 2             |
| Unidentified bats                                    | 4                       | 0.76km                     | 2007               | 200           |

In addition to the roost records, SEWBRc numerous records of bats foraging or commuting within 1km of the site. These included common pipistrelles (*Pipistrellus pipistrellus*), brown long-eared bats, noctule bats, Nathusius' pipistrelles (*Pipistrellus nathusii*), soprano pipistrelles, Daubenton's bats (*Myotis daubentonii*) and *Myotis* species.

There were no records of bat surveys having been previously undertaken within the same postcode on the Local Authority planning portal.

### Field Survey Results

No incidental sightings of bats occurred during the survey.

### Trees

All of the trees within the survey area were assessed for their suitability to support roosting bats. The majority of the scattered trees were young in age and no trees had any PRFs. They were therefore assessed as having negligible bat roost potential and were scoped out of the assessment.

<sup>14</sup> Bird species of high conservation concern, such as those whose population or range is rapidly declining, recently or historically, and those of global conservation concern.

<sup>15</sup> Bird species of medium conservation concern, such as those whose population is in moderate decline, rare breeders, internationally important and localised species and those of unfavourable conservation status in Europe.

# Acer Ecology

## Buildings and Other Structures

Whilst there were no buildings on site, the electrical sub-station housing unit structure on site was assessed externally for its suitability to support roosting bats, as set out in the table below:

Table 6: Structure Assessed for Bat Potential

| <b>Structure Number</b> | <b>Description</b>                                                                                                                                                                                                                                                                                   | <b>Roosting Potential</b> | <b>Hibernation Potential</b> |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------|
| S1                      | Structure 1 is a single storey metal housing unit with no windows and a single door entrance which was locked at the time of survey. The roof is flat, constructed of metal/fibre glass and has no visible voids on the top. The roof however overhangs the sides of the housing with voids visible. | Negligible                | Negligible                   |

## Bat Habitat Suitability

Whilst the site is considered to be of negligible roost and hibernation potential, the site is collectively considered to provide moderate quality foraging and commuting habitat for bats. Although small, with few trees on site or linear features, the site sits on the cusp of a large woodland to the north-east with woodland and waterways closely sited to the south-east. It also comprises scrub and vegetation indicative of invertebrate species; a staple of bat diets.

As such, it may aid in providing connectivity between the woodlands and waterways, and to the wider landscape, and could be used by bats for both commuting and foraging.

### **3.4.4. Dormice**

#### Desk Study Results

SEWBRc did not return any published records of dormice from within 1km of the site (SEWBRc data 2020).

#### Field Survey Results

There were no signs of presence found on site.

Habitats on site were considered to be of negligible potential suitability for hibernating dormice due to few suitable, and isolated, trees being present on site.

Habitats on site offer negligible potential suitability for use by foraging dormice due to the presence of scrub and bramble but no hazel and tenuous connectivity to the woodlands for dormice passage.

Whilst the site itself sits on the cusp of a woodland, it does not offer connectivity to the wider landscape for dormice. Furthermore, no woodland or scrub surrounding the proposed development works will be cleared. Therefore, no adverse impacts to this species are envisaged to occur. This species is therefore not mentioned further in this report.

### 3.4.5. Great Crested Newt

#### Desk Study Results

SEWBRc did not return any records of great crested newt from within 1km of the site. Additionally, no records of common amphibians were received from within this search radius.

#### Field Survey Results

There were no signs of presence found on site

#### ***Aquatic Habitat***

There were no suitable water bodies surveyed within 0.5km of the site.

#### ***Terrestrial Habitats***

There is low potential suitability for the terrestrial or hibernation phases of great crested newt due to the presence of log piles and composted wood chippings offering damp locations but there is little connectivity between the site and off-site waterbodies due to the presence of main roads, footpaths and housing.

Furthermore, no woodland or scrub surrounding the proposed development works will be cleared. Therefore, no adverse impacts to this species are envisaged to occur. Great Crested Newts are therefore not mentioned further in this report

### 3.4.6. Otter

#### Desk Study Results

The data search returned one otter (*Lutra lutra*) records within 1km of the site (SEWBRc data 2020). The record was made in 2017 approximately 0.87km to the south-west of the site.

#### Field Survey Results

There are no waterbodies directly on site and there were no signs of presence found on site.

There is low potential suitability of terrestrial habitats due to the presence of dense scrub, but little connectivity to suitable water bodies due to the presence of main roads, footpaths and housing.

There is moderate potential suitability of aquatic habitats off-site (approximately 0.8km to the south-west of the site) but again, little connectivity exists between this site and such water bodies due to the presence of main roads, footpaths and housing.

Furthermore, no woodland or scrub surrounding the proposed development works will be cleared. Therefore, no adverse impacts to this species are envisaged to occur. Otters are therefore not mentioned further in this report

## **3.4.7. Water Vole**

### Desk Study Results

SEWBRc did not return any records of water vole from within 1km of the site.

### Field Survey Results

There are no waterbodies directly on site and there were no signs of presence found on site.

There is moderate potential suitability of aquatic and terrestrial habitats off site, such as Swansea Canal but little connectivity between such water bodies and this site due to the presence of main roads, footpaths and housing.

There is negligible potential suitability of terrestrial habitats on site due to the absence of suitable grassland, and little connectivity to suitable water bodies.

Water voles are therefore not mentioned further in this report.

## **3.4.8. White-Clawed Crayfish**

### Desk Study Results

SEWBRc did not return any records of white-clawed crayfish from within 1km of the site.

### Field Survey Results

There were no waterbodies directly on site and no signs of presence.

There is a low potential suitability of aquatic habitats off site, such as Swansea Canal and River Tawe, however, given the small scale of this development and distance from such waterbodies, the development is not anticipated to negatively impact upon such habitats.

White-clawed crayfish are therefore not mentioned further in this report.

## **3.4.9. Badgers**

### Desk Study Results

The data search returned four badger (*Meles meles*) records within 1km of the site (SEWBRc data 2020). The nearest record was made in 2018 approximately 0.75km to the south-east of the site.

### Field Survey Results

There were no signs of presence on site.

There is moderate potential suitability of foraging habitats on site due to the presence of bramble and dense scrub.

There is limited connectivity between the site and the woodlands to the north-west which may aid in badgers crossing into the site to forage.

## **3.4.10. Reptiles**

### Desk Study Results

The data search returned six records of reptiles within 1km of the site (SEWBrEC data 2020). These included four records of common lizard (*Zootoca vivipara*) and two record of slow worm (*Anguis fragilis*). The nearest record was of a common lizard from 2012, approximately 0.43km to the west of the site.

### Field Survey Results

There were no incidental sightings whilst on site.

There is high potential suitability of habitats on site due to the presence of suitable vegetation with mixed height structure, patches of exposed bare ground, majority of site with a southerly aspect, immediately adjacent to tall vegetation. Such arrangement affords the site a mix of full sun, dappled shade and full shade areas. Whilst on site, insectivores, a mainstay of reptiles, were abundant.

There is high suitability of habitats for hibernation and egg-laying due to the presence of piles of wood chippings and logs suitable for natural refugia. All features lend themselves towards hibernation and egg-laying opportunities. Whilst the site is located within a residential area, the site itself does not appear to be heavily accessed by members of the public however, occasional access by fly tippers may have occurred due to the presence of a wooden pallet on site.

There is potential, however limited, connectivity between the site and the woodlands to the north-west.

## **3.4.11. Marsh Fritillary and Small Pearl-Bordered Fritillary**

### Desk Study Results

SEWBrEC did not return any records of fritillary from within 1km of the site.

### Field Survey Results

There were no incidental sightings whilst on site and there is negligible potential suitability of habitats on site as there were no sightings of the larval food associated with either of these species.

There is no viable connectivity between this site and any sites with recorded sightings of this species.

Marsh Fritillary and Small Pearl-Bordered Fritillary are therefore not mentioned further in this report.

## 3.4.12. Other Mammals

### Desk Study Results

SEWBRc returned six records of other mammals within 1km of the site, comprising three common hedgehog (*Erinaceus europaeus*) and three grey squirrel (*Sciurus carolinensis*). The nearest record was made in 2012 approximately 0.2km to the south-west of the site.

### Field Survey Results

There were no incidental sightings whilst on site however, there is moderate potential suitability of habitat owing to the presence of dense scrub, decaying wood, brambles and voids in the boundary wall to the south-west for foraging, nesting and hibernating.

There is moderate connectivity between the site and the woodlands to the north-west for small mammals, which in turn allows connection to the wider landscape.

## 3.4.13. Invertebrates

### Desk Study Results

The data search returned very few notable invertebrate records from within the study area, comprising grayling (*Hipparchia semele*) and small heath (*Coenonympha pamphilus*).

### Field Survey Results

During the survey period, no notable invertebrates were sighted. However, there was an abundance of bumblebees (*Bombus* spp.) (including solitary species), hoverflies (*Syrphidae*), grasshoppers (*Caelifera*), spiders (*Araneae*) and beetles, including ladybird beetles, (*Coleoptera*), along with frequent occurrences of shield bugs (*Pentatomidae*), butterflies and moths (*Lepidoptera*).

Identifiable species included european honeybee (*Apis mellifera*), cinnabar moth (*Tyria jacobaeae*) and large white butterfly (*Pieris brassicae*).

There is high potential suitability of habitat for feeding, breeding and over-wintering owing to the presence of suitable vegetation of mixed height, dense scrub and brambles, patches of bare ground with a southerly aspect, decaying wood and piles of wood chippings. There are also areas of full sun, dappled shade and full shade.

There is moderate connectivity between the site and the woodlands to the north-west for invertebrates, which in turn allows connection to the wider landscape.

As the impact of the proposals are to be confined to the development footprint it is not anticipated that there will be any adverse impact to invertebrates off site. Such species are therefore not mentioned further in this report.

## **4. Ecological Evaluation, Legislation and Impact Assessment**

The ecological value of the *in-situ* habitats and the potential/actual presence of protected species are discussed in this section, along with a summary of relevant legislation and planning policies relating to habitats and species. Potential impacts on protected sites, *in-situ* habitats and protected or notable species arising from the proposed development, are identified including both direct and indirect impacts, and those associated with construction and operational stages.

### **4.1. Statutory and Non-Statutory Designated Sites**

Legislation and policy relating to protected sites is summarised in Appendix 2.

#### **4.1.1. Protected Site - Frondeg SSSI**

##### Assessment of Ecological Value

This SSSI hosts several uncommon plant species.

##### Assessment of Potential Development Impacts

The SSSI of Frondeg is designated for its neutral grasslands, fen - meadows and wet grassland. The SSSI lies approximately 1.4km away from the proposed development site (at its closest point) and the connectivity between the two is poor.

The proposed development is therefore not anticipated to have 'significant effects' (IPC, 2011) upon the Frondeg SSSI.

#### **4.1.2. Protected Site - Cefn Gwrhyd, Rhydyfro SSSI**

##### Assessment of Ecological Value

This SSSI hosts wetland habitats which are otherwise uncommon in the county.

##### Assessment of Potential Development Impacts

The SSSI of Cefn Gwrhyd, Rhydyfro is designated for wetland habitats. The SSSI lies approximately 1.6km away from the proposed development site (at its closest point) and the connectivity between the two is poor.

The proposed development is therefore not anticipated to have 'significant effects' (IPC, 2011) upon the Cefn Gwrhyd, Rhydyfro SSSI.

## **4.1.3. Protected Site - Cilybebyll SSSI**

### Assessment of Ecological Value

This SSSI hosts several uncommon plant species

### Assessment of Potential Development Impacts

The SSSI of Cilybebyll is designated for species-rich grasslands and wet pastures. The SSSI lies approximately 2km away from the proposed development site (at its closest point) and the connectivity between the two is poor.

The proposed development is therefore not anticipated to have 'significant effects' (IPC, 2011) upon the Cilybebyll SSSI.

## **4.1.4. Protected Site - Cwm Du Glen and Glanrhyd Plantation LNR**

### Assessment of Ecological Value

This LNR is important as it supports several Local Biodiversity Actions Plan habitats and species.

A number of important lower plant species have been recorded on deadwood, and a number of Red and Amber and Section 42 listed bird species are present throughout the site

### Assessment of Potential Development Impacts

The LNR of Cwm Du Glen and Glanrhyd Plantation is designated for its narrow valley and deciduous woodland, in addition to it being a resource for community use. The LNR lies approximately 0.8km away from the proposed development site (at its closest point) and the connectivity between the two is poor.

The proposed development is therefore not anticipated to have 'significant effects' (IPC, 2011) upon the Cwm Du Glen and Glanrhyd Plantation LNR.

## **4.1.5. Protected Site - Swansea Canal LNR**

### Assessment of Ecological Value

This LNR hosts an abundance of local species.

### Assessment of Potential Development Impacts

The LNR of Swansea Canal is designated for its abundance of local species, in addition to it being a resource for community use. The LNR lies approximately 1.9km away from the proposed development site (at its closest point) and the connectivity between the two is poor.

The proposed development is therefore not anticipated to have 'significant effects' (IPC, 2011) upon the Swansea Canal LNR.

## **4.1.6. Protected Sites Summary**

No impacts on any designated sites or Ancient Woodlands are predicted as a result of the development.

## **4.2. Assessment of Ecological Value of On-site Section 7, LBAP and SINC Habitats**

No habitats within the site boundary are considered to be Priority Habitats of the UK Biodiversity Action Plan (Biodiversity Reporting & Information Group, 2007) or listed in Section 7 as a 'habitats of principal importance for conservation of biological diversity in Wales' (Environment Wales Act 2016; Wales Biodiversity Partnership, 2016).

## **4.3. Assessment of Ecological Value of On-site Habitats Which Do Not Qualify as Section 7, LBAP and SINC Habitat**

All habitats on the site are currently considered to be of no more than site value to wildlife and are all common in the surrounding area.

## **4.4. Assessment of Impacts of Invasive Species**

### Presence of Japanese Knotweed on-site

No presence of Japanese knotweed was found on site.

### Legislation

Japanese knotweed is listed under Schedule 9 of the Wildlife and Countryside Act (1981), as amended. This act specifically prohibits the reckless or deliberate spreading of this species. Any Japanese knotweed found on site will require eradication from the site.

### Assessment of Potential Development Impacts

As the impact of the proposals are to be confined to the development footprint it is not anticipated that there will be any adverse impact to the habitats off site.

## **4.5. Protected and Notable Species**

### **4.5.1. Birds**

#### Assessment of Ecological Value of Site for Birds

No important species were observed on site and no incidental sightings of any birds occurred. However, with SEWBRc providing numerous records for birds within 1km of the site, the mature trees and scrub could provide low potential suitable and low value habitat for nesting birds. Whilst the site is located within a residential area, the site itself does not appear to be heavily accessed by members of the public however, occasional access by fly tippers may have occurred due to the presence of a wooden pallet on site. This may deter some nesting species.

# Acer Ecology

---

Habitats however may provide moderate potential suitability and moderate value for use by foraging birds due to the presence of scrub and ephemeral vegetation, which support invertebrates, and fruiting plants such as bramble, which may support frugivorous species.

## Legislation

All wild British birds (while nesting, building nests and sitting on eggs), their nests and eggs (with certain limited exceptions) are protected by law under Section 1 of the Wildlife and Countryside Act 1981 (as amended) and the Countryside and Rights of Way Act 2000. Included in this protection are all nests (at whatever stage of construction or use) and all dependent young until the nest is abandoned and the young have fledged and become independent. Particularly rare species such as barn owl (*Tyto alba*) are listed on Schedule 1 which gives them additional protection from disturbance whilst nest building, whilst near a nest with eggs or young, or from disturbing the dependent young.

## Impact Assessment of Proposed Development on Birds

A change of use is proposed for the site and lighting may be proposed; therefore, disturbance effects are anticipated to arise as a result of the proposals.

Assuming the majority of the site is to be cleared for development, the impact on potential bird habitat on site is considered to be negative and permanent but low in magnitude and localised. Whilst there are no records or incidental sightings of Schedule 1 birds on site, recommendations for further work are outlined in Section 5.0.

### **4.5.2. Bats**

#### Assessment of Ecological Value of Site for Bats

##### ***Potential Foraging and Commuting Habitat***

No important species were observed on site, no incidental sightings of any bats occurred, and the site provides negligible potential for roosting. Habitats however may provide moderate potential suitability and moderate value for use by foraging and commuting bats due to the presence of scrub and ephemeral vegetation, which support invertebrates and may also provide a link to the wider landscape.

## Legislation

All species of bats and their roosting sites are protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species and Planning (various amendments) (England and Wales) Regulations 2018. All species of UK bats are designated as 'European protected species'. Seven species of bat (soprano pipistrelle, barbastelle (*Barbastella barbastellus*), Bechstein's (*Myotis bechsteinii*), noctule, brown long-eared, lesser horseshoe (*Rhinolophus hipposideros*) and greater horseshoe bats (*Rhinolophus ferrumequinum*)) are listed under Section 7 of the Environment (Wales) Act 2016 as being of principal importance for maintaining and enhancing biodiversity in Wales.

# Acer Ecology

---

All bat species occurring in Neath Port Talbot are also included in the Neath Port Talbot LBAP, with suitable habitat creation for these species a priority.

## Impact Assessment of Proposed Development on Bats

There are multiple records of bat roosts and bats in the local area which may potentially use the site (SEWBRc data 2020).

A change of use is proposed for the site and lighting may be proposed; therefore, disturbance effects are anticipated to arise as a result of the proposals.

The proposals are likely to result in negative and permanent but low in magnitude and localised impacts upon foraging or commuting bats. It is therefore considered necessary to make recommendations with regard to bat foraging or commuting habitat.

Recommendations for further work are outlined in Section 5.0.

### **4.5.3. Badgers**

#### Assessment of Ecological Value of Site for Badgers

Although no evidence of badgers was recorded on site, there is considered to be some limited potential for them to venture onto the site from the surrounding landscape (woodlands) to forage sporadically. Scrub, brambles, ephemeral vegetation and decaying wood may provide foraging opportunities for invertebrates and fruit.

#### Legislation

Badgers are protected under the Protection of Badgers Act 1992. Protection applies both to the animal itself and to its nesting burrows (setts), and current interpretation of the Act also confers some protection to key foraging areas.

#### Impact Assessment of Proposed Development on Badgers

A change of use is proposed for the site and lighting may be proposed; therefore, disturbance effects are anticipated to arise as a result of the proposals.

Assuming the majority of the site is to be cleared for development, the proposed works will result in the localised, low magnitude but negative and permanent loss of potential badger habitat. Clearance of the vegetation may therefore result in the accidental disturbance of badger foraging regime. Recommendations for further work are outlined in Section 5.

---

# Acer Ecology

---

## 4.5.4. Reptiles

### Assessment of Ecological Value of Site for Reptiles

Whilst no incidental sightings occurred, there is a high potential suitability of habitats on site due to the presence of suitable vegetation with mixed height structure, patches of exposed bare ground, majority of site with a southerly aspect, immediately adjacent to tall vegetation. Such arrangement affords the site a mix of full sun, dappled shade and full shade areas. Whilst on site, invertebrates, a mainstay of reptiles, were abundant.

There is high suitability of habitats for hibernation and egg-laying due to the presence of piles of wood chippings and logs suitable for natural refugia. All features lend themselves towards hibernation and egg-laying opportunities. Whilst the site is located within a residential area, the site itself does not appear to be heavily accessed by members of the public however, occasional access by fly tippers may have occurred due to the presence of a wooden pallet on site.

### Legislation

With the exception of smooth snake (*Coronella austriaca*) and sand lizard (*Lacerta agilis*) (which are afforded greater protection), common reptiles are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). They are given so-called 'partial protection', which prohibits the deliberate killing or injury of individuals. The habitats of common reptiles are not specifically protected. These species are listed as priority species in Wales under Section 7 of the Environment (Wales) Act 2016.

### Impact Assessment of Proposed Development on Reptiles

A change of use is proposed for the site; therefore, disturbance effects are anticipated to arise as a result of the proposals.

Assuming the majority of the site is to be cleared for development, the proposed works will result in the localised, low magnitude but negative and permanent loss of potential reptile habitat. Clearance of the vegetation may therefore result in the accidental killing or injury of reptiles. A presence/ likely absence survey for reptiles is taking place at the time of writing. It is dealt with in a separate report (Acer Ecology, 2020).

## 4.5.5. Hedgehog

### Assessment of Ecological Value of Site for Hedgehogs

Although no evidence of hedgehogs was recorded on site, there is considered to be potential for them to venture onto the site from the surrounding landscape (gardens and woodlands) to forage sporadically and possibly hibernate. Scrub, brambles, ephemeral vegetation and decaying wood may provide moderate potential suitability for foraging opportunities for invertebrates and fruit, along with moderate potential suitability for hibernation.

# Acer Ecology

---

## Legislation

Hedgehogs are afforded partial protection under the Wildlife and Countryside Act (1981) and are listed as priority species under Section 7 of the Environment (Wales) Act 2016.

They are also listed in the Neath Port Talbot County Borough Council LBAP in light of dramatic population declines.

The legislation afforded to hedgehogs in the Environment Wales Act (2016) requires all public bodies including Local Authorities to have regard for biodiversity conservation<sup>16</sup> when carrying out their functions.

## Impact Assessment of Proposed Development on Hedgehogs

A change of use is proposed for the site and may include lighting; therefore, disturbance effects are anticipated to arise as a result of the proposals.

Assuming the majority of the site is to be cleared for development, the proposed works will result in the localised, low magnitude but negative and permanent loss of potential hedgehog habitat. Clearance of the vegetation may therefore result in the accidental killing or injury of hedgehogs. Recommendations for further work are outlined in Section 5.0.

Mitigation measures are recommended to enable the requirements of the local planning authority to be met, namely the restoration or enhancement of hedgehog habitat.

---

<sup>16</sup> Biodiversity conservation in respect to hedgehogs is interpreted as a commitment to restoring or enhancing their population.

## 5. Required Actions

The following recommendations have been developed based on the development proposals available at the time of writing. The implementation of these recommendations will ensure compliance with the Environment (Wales) Act 2016, Planning Policy Wales version 10 (Welsh Government, 2018<sup>17</sup>), TAN 5 *Nature Conservation and Planning* (2009), Section 6 and 7 of the Environment Wales Act, 2016, The Conservation of Habitats and Species Regulations 2017<sup>18</sup> and help to avoid or minimise adverse impacts on the environment and protected species, mitigate and compensate for losses where damage is unavoidable and promote opportunities to enhance biodiversity. The Environment (Wales) Act 2016, Planning Policy Wales version 10 (Welsh Government, 2018)<sup>18</sup> stipulate that developments must provide net benefit for Biodiversity.

Consultation with the local authority ecologist is recommended in order to progress the project and to agree the scope of further work.

### 5.1. Proposal Design Amendment (Avoidance)

Current development proposals will result in the near total loss of all scrub and ephemeral vegetation, including young trees and brambles, considered to be a moderately potentially suitable habitat for bats, badgers and hedgehogs and a highly potentially suitable habitat for reptiles. Such works may also result in the accidental killing, injury and/or disturbance to said species. It is recommended, therefore, that alternative options to avoid such impacts are explored.

One possible option would be to reduce the number of parking spaces however, the client has advised that the site was primarily chosen for the parking availability. As such, reduction in the number of spaces is not currently an option.

The client also wishes the church to maintain an image of being an open and inviting church and as such, re-orientation of the building 90°, so as to allow a larger combined area for landscaping to the southern borders, is not an option as it would result in the entrance and front of the church facing into the car park and away from passing members of the public. Such a move may also result in a reduced building footprint.

The trees on the north-west boundary, and subsequent vegetation underneath, do not fall within the boundaries of the proposed development and as such will be remaining intact in their present form.

### 5.2. Sustainable Drainage System (SuDS)

As of 7th January 2019, all construction work in Wales with drainage implications, of 100m<sup>2</sup> or more, is now required to have Sustainable Drainage Systems (SuDS) to manage on-site surface water (whether

---

<sup>17</sup> Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions ... and in so doing promote the resilience of ecosystems. Development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity.

<sup>18</sup> Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions ... and in so doing promote the resilience of ecosystems. Development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity.

they require planning permission or not). These SuDS must be designed and constructed in accordance with the Welsh Government Standards for Sustainable Drainage.

<https://www.monmouthshire.gov.uk/sustainable-drainage-approving-body-sab/what-are-suds/>

### **5.3. Further Survey Work**

Works should not commence until the surveys below have been carried out. Results from these surveys will inform and allow for targeted recommendations for the avoidance (timing of works), future mitigation and compensation measures required as part of the development and determine if any protected species derogation licences are required.

#### **5.3.1. Reptile Survey**

The habitats on site are assessed as having a 'high potential suitability for reptiles' and the proposed works will result in the localised, low magnitude but negative and permanent loss of potential reptile habitat.

As such, the site should be subject to a standard presence/absence reptile survey consisting of the placement of reptile refugia, allowing 2 weeks for said refugia to 'bed in', followed by 7 site visits to assess presence/absence of reptiles. As the site is open and easily accessed by members of the public who may tamper with the refugia if easily visible, 50cm x 50cm refugia constructed of roofing felt is appropriate.

Visits will be undertaken on non-consecutive days during May (a peak reptile activity month) by one surveyor, and subject to suitable weather conditions, being;

- Air temperature between 9-20°C
- Not during rain or high winds

The survey is underway at the time of writing. It will be dealt with in a separate report (Acer Ecology, 2020).

### **5.4. Precautionary Measures**

#### **5.4.1. Timing of Works for Birds**

Any vegetation clearance or works to the culvert should be undertaken from September to February, outside the bird breeding season (March to August inclusive). Alternatively, any works undertaken between March to August will be subject to a nesting bird check by an ecologist, immediately prior (i.e. no more than 24 hours) prior to works commencing.

## **5.4.2. Reptiles**

Full details of precautionary measures for reptiles will be dealt with in the separate reptile survey report (Acer Ecology, 2020).

## **5.5. Mitigation Measures**

### **5.5.1. Lighting Plan for Bats**

The lighting design of the site (during both construction and post-development stages) will be of a 'bat friendly' specification and kept to the minimum level which meets the needs of security and health and safety.

Lighting of the surgery will be installed at low-level only (i.e. no higher than eaves level and lower than 2.4m) and directed downward (i.e. below the horizontal plane). Front and side hoods/shields or cowls will be installed to prevent upwards and horizontal light spill. Where practical on health and safety/ security grounds, lighting will not be located in the vicinity of, or pointing towards, the north-western edge of the site. This will help to ensure that a 'dark corridor' is maintained and disturbance to foraging and commuting bats is avoided/minimised. Light levels along the site boundaries will have a lux level of less than 0.5, and ideally less than 0.3.

Any security lights used will operate off a passive infrared (PIR) motion sensor sensitive to large objects only, to avoid constant triggers by bat passes and with timers set on a short duration (i.e. a maximum 'on' time of one minute (ideally less) to reduce the amount of 'lit time'. The bulbs in the lights will ideally be low intensity (i.e. circa 11 watts), glass-glazed and the light source will either be compact fluorescent light sources fitted with appropriate UV filters, low pressure sodium bulbs, or warm light LED bulbs. White lighting sources including mercury or metal halide, CPO and CDO (ceramic discharge metal-halide) bulbs which have a significant effect on bats will be avoided throughout the new development site.

## **5.6. Compensation and Enhancement Measures**

### **5.6.1. Nesting Bird Enhancement**

Bird nesting opportunities within the proposed development site will be compensated for and enhanced by the incorporation of bird boxes on suitable retained features within the site, and on the fabric of the new church. This internal incorporation will ensure the long-term viability of these enhancement measures.

Two bird boxes will be erected upon retained trees at the perimeter of the site. They will be located in secluded positions, ideally within dense cover and at a minimum height of 3m from ground level. One house sparrow terrace box will be incorporated into the external masonry of one of the new church. It will face outwards from the site. Specialised boxes that cater for specific bird species will be used, including:

- One open fronted nest box will be fitted to a retained tree within or at the perimeter of the proposed development site (see Appendix 7). Open fronted nest boxes cater for a range of bird species, including robin, dunnock, wren, pied wagtail, redstart and flycatcher. Due to the more

exposed nature of these nest boxes, it is especially important to ensure that they are located in dense cover in order to avoid the attention of potential predators;

- One standard nest box will be located within the site (see Appendix 8). An entrance hole of 32mm will attract species such as great, blue and coal tits, along with nuthatch, flycatchers and sparrows. These nest boxes can be sited in a wide range of locations throughout the site; and
- The house sparrow terrace will be installed on the exterior northern or eastern elevation of the church. The box should be positioned at least five metres above ground level and will be located away from windows. House sparrows are sociable birds and prefer to nest in colonies. Appendix 9 shows a typical house sparrow terrace nest box, which allows up to three pairs to breed in proximity to each other.

## 5.6.2. Roosting Bat Enhancement

In order to enhance the site for use by roosting bats, two bat bricks (see Appendix 10) will be installed upon the external elevations of the church. A variety of bat boxes/ bricks are available from NHBS<sup>19</sup>. They will face outwards onto the retained scrub at the north of the site, to allow bats undisrupted dispersal to local foraging habitat, and in positions where the entrance is not artificially illuminated at night. Bat bricks should be positioned a minimum of 3m from the ground.

## 5.6.3. General Adoption of Wildlife-Friendly Planting Scheme

The soft landscaping scheme for the wider site will include habitat enhancements for birds, foraging bats, and hedgehogs, through the provision of shrubs or trees that bear berries or nuts. Native trees and shrubs that are indigenous to the region will be utilised, and any new plantings of native species should be of UK provenance.

Suitable species for use in any new tree or shrub planting include wild cherry (*Prunus avium*), rowan (*Sorbus aucuparia*), guelder rose (*Viburnum opulus*) and sessile oak, holly, field maple and common hawthorn. Plant species that provide a rich source of nectar could be used. Suitable species include flowering herbs such as lavender (*Lavendula* spp.) and violets (*Viola* spp.), and shrubs such as flowering currant (*Ribes sanguineum*), privet (*Ligustrum vulgare*), forsythia (*Forsythia* spp.), dogwood (*Cornus sanguinea*), berberis (*Berberis* spp.), pyracantha (*Pyracantha* sp.) and ceanothus (*Ceanothus* sp.).

Wildflower and grassland area/s will be created to the south-west and south-east, incorporating mixed height structure vegetation, such as low and tall growing grasses and wildflowers, and decaying wood/logs and fruiting trees, such as rowan (*Sorbus* sp.). Such a measure would create a new space for foraging, breeding and hibernating mammals, reptiles and birds.

---

<sup>19</sup> <https://www.nhbs.com/browse/subject/421/bat-boxes>

# Acer Ecology

---

Incorporation of a native species-rich hedgerow, such as hawthorn (*Crataegus monogyna*), along the south-east boundary. In addition to creating a new habitat in its own right, a fruiting hedgerow would provide autumn/winter food for frugivorous birds and mammals.

At present, the proposed car park and building plans do not impact the trees and habitat running along with north-west boundary. It is therefore suggested that such area be left as a 'wild' area whereby current vegetation is left as currently is and with no human intervention or management (mowing, application of herbicides/insecticides etc.). This will allow a wildlife corridor to remain in-situ and reduce the impact upon species which might currently use the vegetation.

## **5.7. Licensing**

No European Protected Species development licenses are required.

## **5.8. Longevity of Report**

If development works do not begin within two years of the date of this report, an update survey is likely to be required in accordance with guidance from Natural Resources Wales (NRW)<sup>20</sup> and BS 42020:2013<sup>21</sup>, to determine if conditions have changed since those described in this report.

---

<sup>20</sup> As set out in Point 5 of the NRW *Bat Surveys - Frequently Asked Questions* and Point 4 of the guidance included within the NRW European Protected Species Development Application Form.

<sup>21</sup> As set out in Section 6.2.1, point 7 which states that ecological information should not normally be more than two/three years old, or as stipulated in good practice guidance).

## 6. References and Bibliography

- Amphibian & Reptile Group (2010)** *Great Crested Newt Habitat Suitability Index*. ARG UK Advice Note 5. ARG.
- Andrews H (2013)**. *Bat Tree Habitat Key*. AEcol, Bridgwater
- Biodiversity Reporting & Information Group (2007)** *Report on the Habitats & Species Review: A Report to the UK Biodiversity Partnership*. Joint Nature Conservation Committee, Peterborough.
- Bright, P, Morris, P A & Mitchell-Jones, T (2006)** *The Dormouse Conservation Handbook*. Second Edition. English Nature. Peterborough.
- British Standard Institute (2015) BS 8596:2015** *Surveying for Bats in Trees and Woodland*.
- Chartered Institute of Ecology & Environmental Management (2017)** *Guidelines for Preliminary Ecological Appraisal*. 2<sup>nd</sup> edition. CIEEM, Winchester. <https://bit.ly/2k0mhOH>.
- Chartered Institute of Ecology & Environmental Management (2018)** *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. CIEEM <https://bit.ly/2OjRny9>
- Collins, J (ed) (2016)** *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London.
- Countryside Council for Wales (2005)** *Habitats of Wales. Phase I Data 1979-1997. Lowlands and Uplands*. CD ROM, Bangor.
- Edgar, P, Foster, J & Baker, J (2011)** *Reptile Habitat Management Handbook*. Amphibian Reptile Conservation and Natural England. Peterborough.
- English Nature (2001)** *Great Crested Newt Mitigation Guidelines*, Peterborough.
- Gent, T. & Gibson, S. (2003)** *Herpetofauna Workers Manual*. Joint Nature Conservation Committee, Peterborough.
- Harris, S, Cresswell, P & Jefferies, D J (1988)** *Surveying Badgers*. Mammal Society Occasional Publication 9.
- Infrastructure Planning Commission (2011)** *Advice Note Ten: Habitat Regulations Assessment Relevant to Nationally Significant Infrastructure Projects*.
- Jehle, R, Thiesmeier B, Foster, J (2011)** *The Crested Newt: A Dwindling Pond Dweller*. Kock, Bielefeld, Germany.
- Joint Nature Conservation Committee (2010)** *Handbook for Phase 1 Habitat Survey – a Technique for Environmental Audit*.

# Acer Ecology

---

**Langton, T E S, Beckett, C L & Foster, J P (2001)** *Great Crested Newt Conservation Handbook*. Froglife, Halesworth.

**Morris P (2004)** *Dormice*. Whittet Books.

**Natural England (2011)** *Reptile Mitigation Guidelines: Natural England Technical Information Note TIN 102*. Peterborough.

**Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000).** *Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus)*. Herpetological Journal 10 (4), 143-155

**South Wales Wildlife Sites Partnership (2004)** *Guidelines for the Selection of Wildlife Sites in South Wales*. Gwent Wildlife Trust. <http://bit.ly/2gx1SBo>

**Wales Biodiversity Partnership (WBP 2008)** *Wildlife Sites Guidance Wales: A Guide to Develop Local Wildlife Systems in Wales*. Wales Biodiversity Partnership/Welsh Assembly Government. <https://www.biodiversitywales.org.uk/File/36/en-GB>.

**Wales Biodiversity Partnership (2016)** *Environment Wales Act 2016. Section 7 Habitats List*. Wales Biodiversity Partnership/Welsh Assembly Government. <http://bit.ly/2hFuEvO>

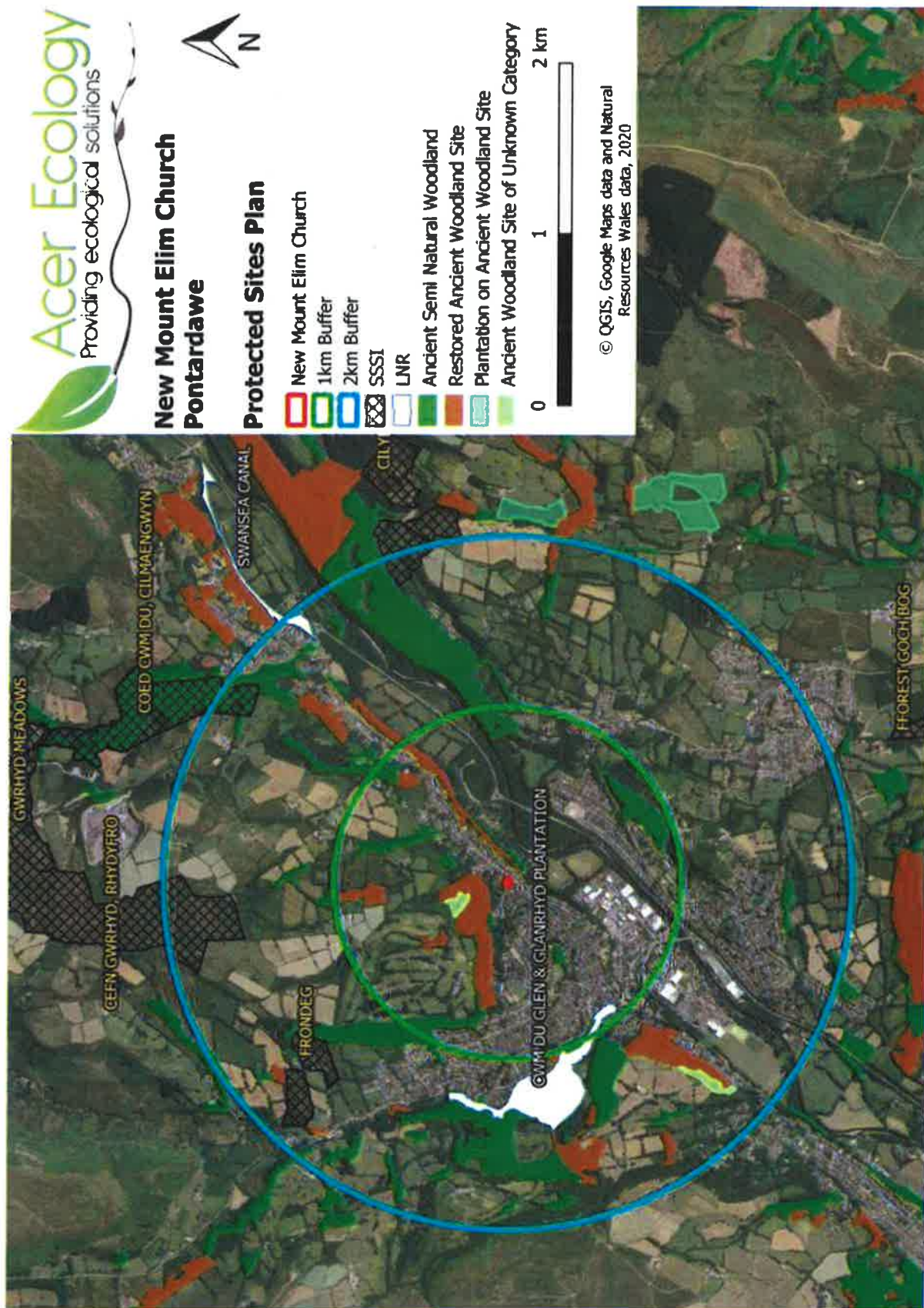
**Wales Biodiversity Partnership (2016)** *Environment Wales Act 2016. Section 7: Interim List of Living Organisms & Habitats of Principal Importance for the Purpose of Maintaining and Enhancing Biodiversity in Wales*. Wales Biodiversity Partnership/Welsh Government. <http://bit.ly/2hm4CRJ>.

**Welsh Government. (2016).** *Planning Policy Wales*. 8<sup>th</sup> Edition. <http://bit.ly/2hFoeN9>

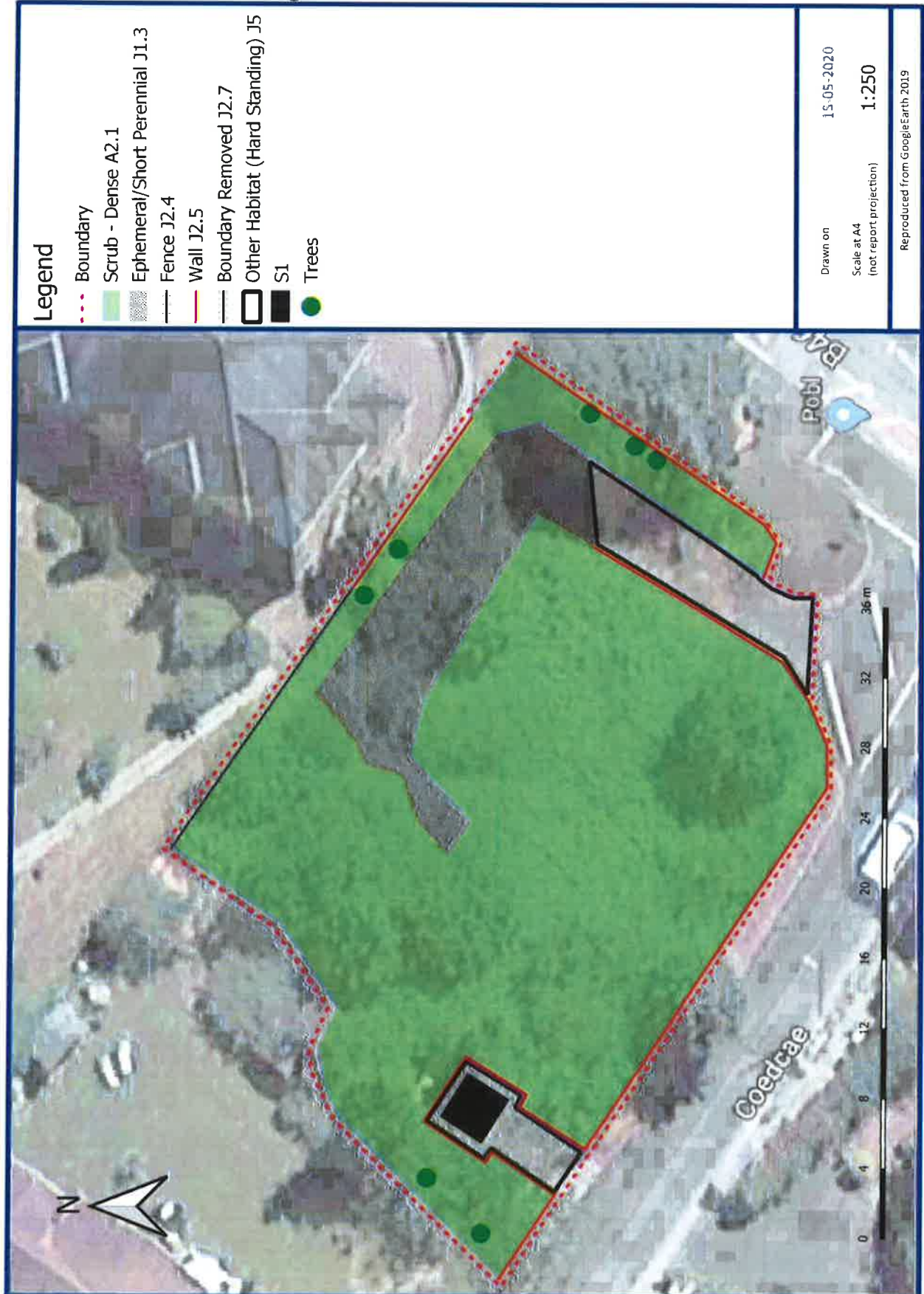
Plan 1: Location Plan



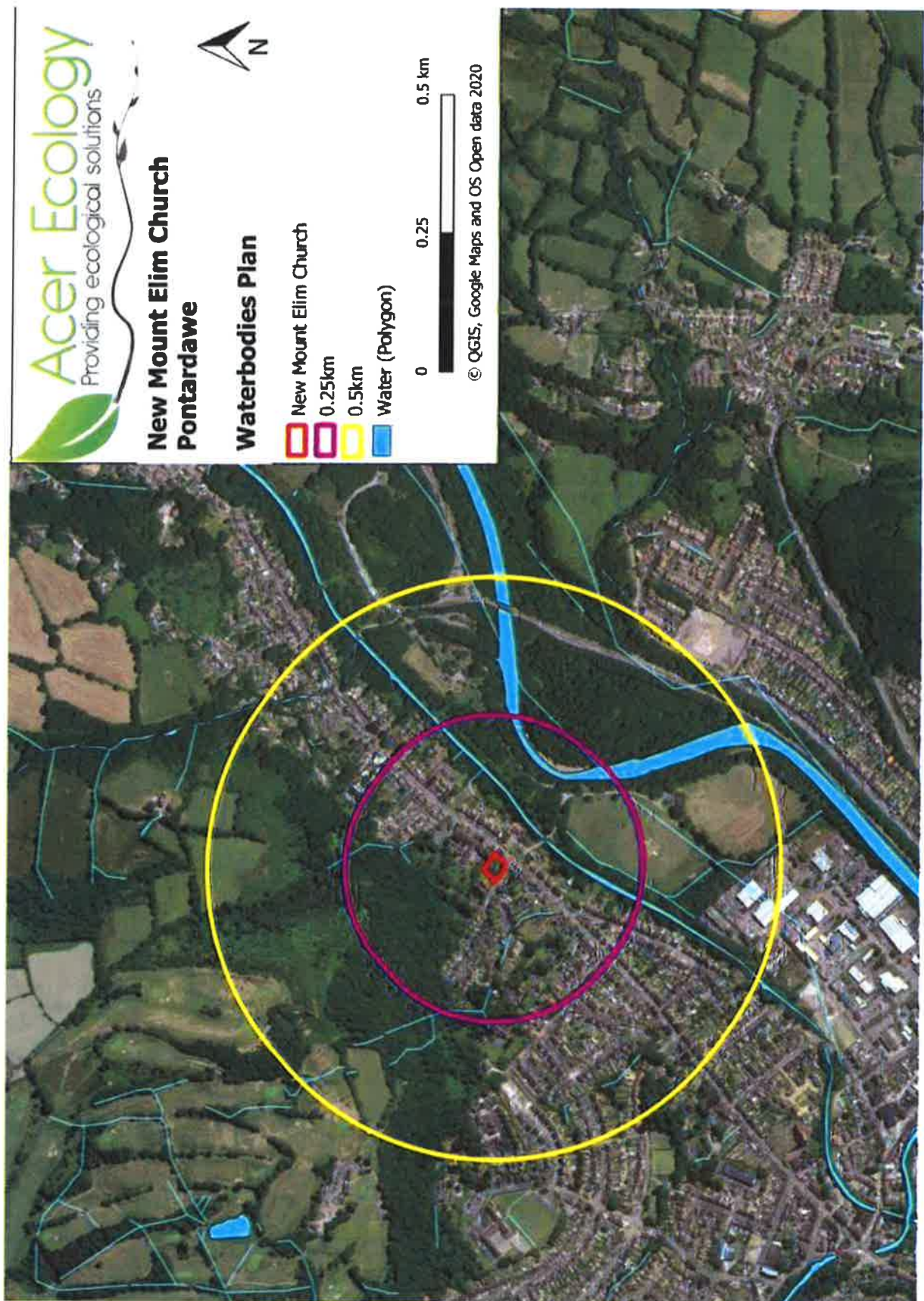
Plan 2: Site Location and Protected Sites Plan (2km Buffer)



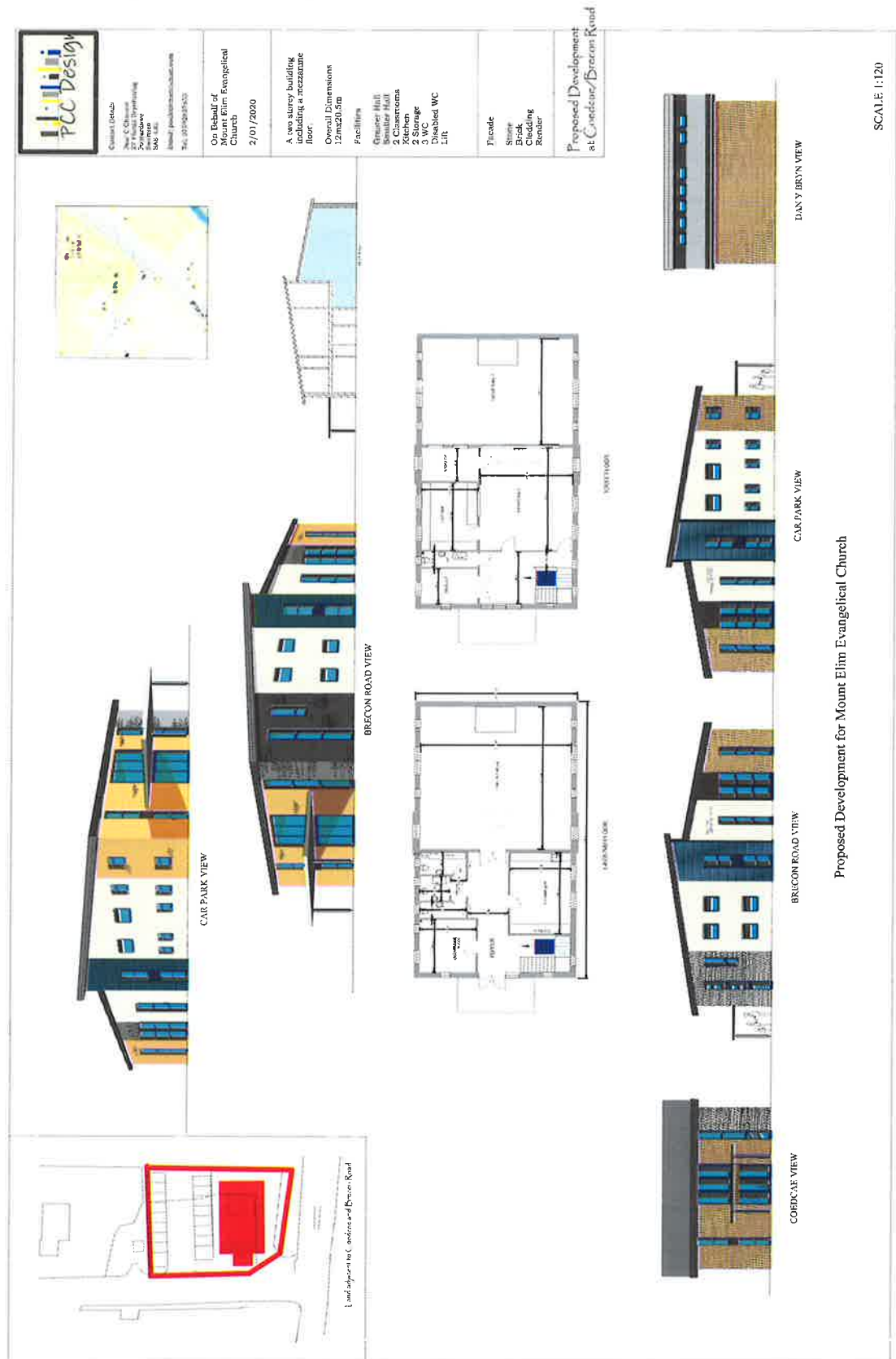
## Plan 3: Habitats and Vegetation



## Plan 4: Location of Water Bodies within 0.5km of Site



## Appendix 1: Proposed Development Works



## **Appendix 2: Legislation and Policy Relating to Statutory and Non-Statutory Designated Sites**

### **SSSIs**

SSSIs are important as they support plants and animals that find it difficult to survive elsewhere in the countryside, and they represent the country's best wildlife and geological sites. SSSIs are legally protected under the Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act 2000 and the Natural Environment and Rural Communities Act 2006, and are of national (second tier) biodiversity significance and form the essential building blocks of the United Kingdom's protected areas for nature conservation. Many are also designated as Natura sites i.e. internationally (first tier) designated sites. It is an offence for any person to intentionally or recklessly damage the protected natural features of a SSSI.

### **LNRs**

Under the National Parks and Access to the Countryside Act 1949, LNRs may be declared by local authorities after consultation with the relevant statutory nature conservation agency. LNRs are declared and managed for nature conservation, and provide opportunities for research and education, or simply enjoying and having contact with nature.

### **SINCs**

SINCs are one of a class of nature conservation designations collectively referred to as 'Wildlife Sites'. Wildlife Sites are so-called 'third tier' sites, generally ranked below sites which are of international (first tier) or national (second tier) biodiversity significance, but which are considered to have substantive nature conservation value at the regional or district level. They are usually designated at the county or county borough level by the relevant local planning authority, and are recognised as a planning constraint in the relevant statutory development plan.

The framework for the identification and designation of 'Wildlife Sites' is set out in various Government documents, and is referred to in *Planning Policy Wales (2016)* and *Technical Advice Note (Wales) 5: Nature Conservation & Planning*.

In Neath Port Talbot, SINCs are also afforded protection under Policy EN6 of the Adopted Neath Port Talbot County Borough Local Development Plan.

### **ASNW and Woodland**

The UK is a sparsely wooded country: 11.5% of Great Britain is covered with trees. Only 1.2% of the UK is ancient semi-natural woodland, a valuable and irreplaceable natural resource. Ancient semi-natural woodland, and plantations on ancient woodland sites, are a priority for conservation (JNCC).

The Welsh Assembly has recognised that areas of ancient woodland are declining and becoming increasingly fragmented and emphasises the importance of conserving ancient woodland and its value as a biodiversity resource through the publication of *Planning Policy Wales (2016)*. Furthermore, the UK

# Acer Ecology

---

Biodiversity Action Plan (UKBAP) includes objectives to conserve, and, where practicable, enhance: the quality and range of wildlife habitats and ecosystems; the overall populations and natural ranges of native species; internationally important and threatened species, habitats and ecosystems; species, habitats and natural and managed ecosystems characteristic of local areas; and biodiversity of natural and semi-natural habitats where this has been diminished over recent decades.

Paragraph 5.2.9: "Trees, woodlands and hedgerows are of great importance, both as wildlife habitats and in terms of their contribution to landscape character and beauty. They also play a role in tackling climate change by trapping carbon and can provide a sustainable energy source. Local planning authorities should seek to protect trees, groups of trees and areas of woodland where they have natural heritage value or contribute to the character or amenity of a particular locality. Ancient and semi-natural woodlands are irreplaceable habitats of high biodiversity value which should be protected from development that would result in significant damage."

Paragraph 5.2.10: "Local planning authorities should, as appropriate, make full use of their powers to protect and plant trees to maintain and improve the appearance of the countryside and built up areas."

## **Environment (Wales) Act 2016**

The Environment (Wales) Act 2016 dictates that Local authorities have a duty to have regard to the conservation of biodiversity in exercising their functions. The duty affects all public authorities and aims to raise the profile and visibility of biodiversity, to clarify existing commitments relating to biodiversity, and to make it a natural and integral part of policy and decision making. Part 1 Section 7 of the Act provides a list of the living organisms of principal importance for maintaining and enhancing biodiversity in Wales.

National Planning Policy Wales (2018)

<https://gov.wales/sites/default/files/publications/2018-12/planning-policy-wales-edition-10.pdf>

# Acer Ecology

---

## **Appendix 3: Correspondence Received**

No correspondence has been received.

# Acer Ecology

## Appendix 4: Guidelines for Assessing Potential Suitability of a Building and Proposed Development Site for Bats <sup>22</sup>

| Suitability | Description of Roosting Habitat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Commuting and Foraging Habitat                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Negligible  | Negligible habitat features on site likely to be used by roosting bats.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Negligible habitat features on site likely to be used by commuting and foraging bats.                                                                                                                                                                                                                                                                                                                                                                                                    |
| Low         | <p>A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection appropriate conditions<sup>23</sup> and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity) or hibernation<sup>24</sup>.</p> <p>A tree of sufficient size and age to contain PRFs but with none seen from the ground<sup>25</sup>.</p> | <p>Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat.</p> <p>Suitable but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.</p>                                                                                                          |
| Moderate    | A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only) the assessments in this table are made irrespective of conservation status, which is established after presence is confirmed.                                                                                                                                    | <p>Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.</p> <p>Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.</p>                                                                                                                                                                                   |
| High        | A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.                                                                                                                                                                                                                                                         | <p>Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.</p> <p>High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland.</p> <p>Site is close to and connected to known roosts.</p> |

<sup>22</sup> Table 4.1 in Collins (2016)

<sup>23</sup> For example, in terms of temperature, humidity, height above ground levels, light levels or levels of disturbance.

<sup>24</sup> Evidence from the Netherlands, shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten *et al.*, 2015). This phenomenon requires some research in the UK but ecologists should be aware of the potential for large numbers of this species to be present during the autumn and winter in large buildings in highly urbanised environments.

<sup>25</sup> This system of categorisation aligns with BS 8596:2015 Surveying for bats in trees and woodland (BSI, 2015).

## Appendix 5: Definitions of Site Value

### International Value

Internationally designated or proposed sites such as Ramsar Sites, Special Protection Areas, Biosphere Reserves and Special Areas of Conservation, or non-designated sites meeting criteria for international designation. Sites supporting populations of internationally important species or habitats.

### National Value

Nationally designated sites such as Sites of Special Scientific Interest (SSSIs), or non-designated sites meeting SSSI selection criteria (NCC 1989), National Nature Reserves (NNRs) or Nature Conservancy Review (NCR) Grade 1 sites, viable areas of key habitats within the UK Biodiversity Action Plan. Sites supporting viable breeding populations of Red Data Book (RDB) species (excluding scarce species), or supplying critical elements of their habitat requirements.

### Regional Value

Sites containing viable areas of threatened habitats listed in a regional Biodiversity Action Plan, comfortably exceeding Site of Importance for Nature Conservation (SINC) criteria, but not meeting SSSI selection criteria. Sites supporting regionally significant areas of BAP habitats or large and viable populations Nationally Scarce species, or those included in the Regional Biodiversity Action Plan on account of their rarity, or supplying critical elements of their habitat requirements.

### County Value/District Value

Site identified as a Site of Importance to Nature Conservation (SINC) at the district level; meeting South Wales Wildlife Sites Partnership (SWWSP) 2004 published designation criteria, but falling short of SSSI designation criteria, whether designated as a SINC or not. Ancient woodlands and sites supporting regionally significant areas of UK BAP habitat. Large scale examples of BAP habitats or areas supporting small populations of protected, UK BAP/ LBAP or threatened species (other than badger).

### High Local

Habitats which just fail to meet Regional value criteria, but which appreciably enrich the ecological resource of the locality. Sites supporting species which are notable or uncommon in the county; or species which are uncommon, local or habitat-restricted nationally, and which might not otherwise be present in the area. Moderate scale examples of BAP habitats or areas supporting small populations of protected, UK BAP/LBAP or threatened species.

### Local Value

Old hedges, woodlands, ponds, significant areas of species-rich grassland, small scale examples of BAP habitats or areas supporting small populations of protected, UK BAP/LBAP or threatened species. Undesignated sites or features which appreciably enrich the habitat resource in the context of their immediate surroundings, parish or neighbourhood (e.g. a species-rich hedgerow). Rare or uncommon species may occur but are not restricted to the site or critically dependent upon it for their survival in the area.

### Site Value (within the immediate zone of influence)

Low-grade and widespread habitats. Woodland plantations, structured planting, small areas of species-rich grassland and other species-rich habitats not included in the UK or Local BAP.

### Negligible

No apparent nature conservation value.

# Acer Ecology

## Appendix 6: Species Recorded

All species recorded by Acer Ecology, 2020.

| Species                                                   | Common name                | W        | LM        | CG        | LDA        | PMR        | PIL        | TF        | Status  |
|-----------------------------------------------------------|----------------------------|----------|-----------|-----------|------------|------------|------------|-----------|---------|
| <b>Herbaceous plants</b>                                  |                            |          |           |           |            |            |            |           |         |
| <i>Anagallis arvensis</i>                                 | Scarlet pimpernel          |          |           |           |            |            |            |           |         |
| <i>Anthriscus sylvestris</i>                              | Cow parsley                |          |           |           |            |            |            |           |         |
| <i>Aquilegia sp</i>                                       | Garden columbine           |          |           |           |            |            |            |           |         |
| <i>Arrhenatherum elatius</i>                              | False oat-grass            |          |           |           |            |            |            |           |         |
| <i>Bellis perennis</i>                                    | Daisy                      |          |           |           |            |            |            |           |         |
| <i>Carex pendula</i>                                      | Pendulous sedge            | W        |           |           |            | PMR        |            |           |         |
| <i>Centaurea nigra</i>                                    | Common knapweed            |          | LM        | CG        |            |            |            |           | Rct sap |
| <i>Cerastium glomeratum</i>                               | Sticky mouse-ear           |          |           |           |            |            |            |           |         |
| <i>Dactylis glomerata</i>                                 | Cock's-foot                |          |           |           |            |            |            |           |         |
| <i>Digitalis purpurea</i>                                 | Foxglove                   |          |           |           |            |            |            |           |         |
| <i>Equisetum fluviatile</i>                               | Water horsetail            |          |           |           |            |            |            |           |         |
| <i>Geranium robertianum</i>                               | Herb-robert                |          |           |           |            |            |            |           |         |
| <i>Hedera helix</i>                                       | Ivy                        |          |           |           |            |            |            |           |         |
| <i>Holcus lanatus</i>                                     | Yorkshire fog              |          |           |           |            |            |            |           |         |
| <i>Hyacinthoides non-scripta</i>                          | Bluebell                   | W        |           |           |            |            |            |           |         |
| <i>Leucanthemum vulgare</i>                               | Ox-eye daisy               |          | LM        |           |            |            |            |           |         |
| <i>Lotus corniculatus</i>                                 | Common bird's-foot-trefoil |          | LM        | CG        |            |            | PIL        |           |         |
| <i>Plantago lanceolata</i>                                | Ribwort plantain           |          |           |           |            |            |            |           |         |
| <i>Plantago major</i>                                     | Greater plantain           |          |           |           |            |            |            |           |         |
| <i>Poa annua</i>                                          | Annual meadow-grass        |          |           |           |            |            |            |           |         |
| <i>Ranunculus acris</i>                                   | Meadow buttercup           |          |           |           |            |            |            |           |         |
| <i>Trifolium dubium</i>                                   | Lesser trefoil             |          |           |           |            |            |            |           |         |
| <i>Trifolium pratense</i>                                 | Red clover                 |          | LM        |           |            |            |            |           |         |
| <i>Urtica dioica</i>                                      | Common nettle              |          |           |           |            |            |            |           |         |
| <i>Veronica arvensis</i>                                  | Wall speedwell             |          |           | CG        |            |            |            |           |         |
| <i>Veronica chamaedrys</i>                                | Germander speedwell        |          |           |           |            |            |            |           |         |
| <i>Vicia sativa</i>                                       | Common vetch               |          |           |           |            |            |            |           |         |
| <b>Trees and Shrubs</b>                                   |                            |          |           |           |            |            |            |           |         |
| <i>Acer pseudoplatanus</i>                                | Sycamore                   |          |           |           |            |            |            |           | Alien   |
| <i>Betula pubescens</i>                                   | Downy birch                |          |           |           |            |            |            |           |         |
| <i>Buddleja davidii</i>                                   | Buddleia                   |          |           |           |            |            |            |           | Alien   |
| <i>Prunus sp</i>                                          | Cherry                     |          |           |           |            |            |            |           |         |
| <i>Quercus sp</i>                                         | Oak                        |          |           |           |            |            |            |           |         |
| <i>Rosa canina agg</i>                                    | Dog-rose                   |          |           |           |            |            |            |           |         |
| <i>Salix spp.</i>                                         | Willow                     |          |           |           |            |            |            |           |         |
| <b>'Habitat Indicator Species' Totals</b>                 |                            |          |           |           |            |            |            |           |         |
| <b>(Wales Biodiversity Partnership 2008<sup>26</sup>)</b> |                            | 2        | 4         | 3         | 0          | 1          | 1          | 0         |         |
|                                                           |                            | <b>W</b> | <b>LM</b> | <b>CG</b> | <b>LDA</b> | <b>PMR</b> | <b>PIL</b> | <b>TF</b> |         |

<sup>26</sup> Wales Biodiversity Partnership (2008) Wildlife Sites Guidance Wales: A Guide to Develop Local Wildlife Systems in Wales. Wales Biodiversity Partnership/Welsh Assembly Government.

# Acer Ecology

---

|                                                                                      |                        |                             |
|--------------------------------------------------------------------------------------|------------------------|-----------------------------|
| <b>'Primary' and 'Contributory' Totals<br/>(Wales Biodiversity Partnership 2008)</b> | 0                      | 32                          |
|                                                                                      | <b>Primary Species</b> | <b>Contributory Species</b> |

## **Key to Indicator Species (Wales Biodiversity Partnership 2008)**

W - Woodland, LM – Lowland meadow, CG - Calcareous Grassland, LDA – Lowland Dry Acid Grassland, PMR Purple moor-grass and rush pasture, PIL – Post Industrial Land, TF Species-rich Tillage Fields and Margins

## **SINC Selection**

Sites which support one primary species or five contributory species; or habitats which support eight lowland meadow, eight calcareous grassland, seven lowland dry acid grassland, twelve purple moor-grass and rush pasture or eight tillage field and margins indicator species, should be considered for SINC selection. Post-industrial sites supporting 20 or more indicator species from the combined post-industrial land, acid, neutral, calcareous and marshy grassland lists should be also considered for selection.

## **Appendix 7: Open-Fronted Nest Box**

### Schwegler 2H Half Box

These should never be hung on trees or bushes as this could allow small predators to access the interior and predate nesting birds.

This nest box should always be installed on the external walls of houses, barns, garden sheds etc. It is designed to be hung so that the entrance is to one side (90° angle to wall).

Correctly positioned it can attract species such as Black Redstart, Pied Wagtail, Grey Spotted Flycatcher, and occasionally Robin and Wren.

The front panel is easily removed to facilitate cleaning.



# Acer Ecology

## Appendix 8: Standard Hole Nest Box

### Nest Box 1B

Material: SCHWEGLER wood-concrete



The internal diameter of this nest box is 12 cm. It is usually attached to a tree using the Aluminium Nail (see Fig. 1). It can also be hung from a branch (see Fig. 2).

The front panels, which can be bought separately, are interchangeable between model 1B, 2M and 2F, and can easily be removed from the nest box. Different entrance hole sizes are available to prevent birds from competing with one another for the boxes.

Available entrance hole sizes:

Ø 32 mm, Ø 26 mm and Oval 29 x 55 mm

Suitable for the following species:

- Entrance hole 32 mm: Great-, Blue-, Marsh-, Coal- and Crested Tit, Redstart, Nuthatch, Collared and Pied Flycatcher, Wren, Tree and House Sparrows, bats.

- Entrance hole 26 mm: Blue-, Marsh-, Coal- and Crested Tit, possibly Wren. All other species are prevented from using the nest box due to this smaller entrance hole.

- Oval entrance hole: (29 x 55):

Redstart; also used by species that nest in the Ø 32 mm boxes. However, because more light enters the brood chamber, it is preferred by Redstarts.



Clutch of Great Tit eggs



From a branch  
(Fig. 2)



On the trunk,  
using Aluminium Nail  
(Fig. 1)

### Standard Hole Nest Box

The Schwegler 1B general small bird box will be preferably mounted on a stable tree trunk, rather than on branches which will sway. The mounting location will not be heavily shaded. Boxes should be mounted vertically on the tree.

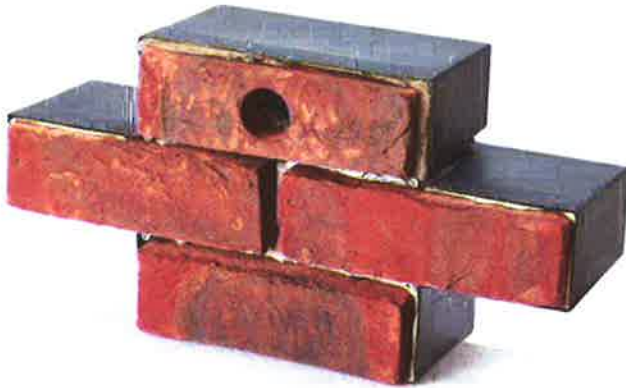
Boxes will be mounted a minimum of 2m, and preferably 3m, above the ground, and as far as possible placed on the SE- or SW-facing surfaces of the tree trunks.

# Acer Ecology

---

## Integrated Standard Hole Nest Box

Our Standard nesting boxes are suitable for House Sparrows and members of the tit family. The single entrance hole allows the entire internal area to be available for nesting and roosting. The aperture size will vary according to the target species and box fronts can be removable if required.



## Appendix 9: House Sparrow Nest Box

### Schwegler 1SP Sparrow Terrace

Sparrows are gregarious and prefer to nest close to each other, so this triple-nest box provides room for three families under one roof. It's made from long-lasting, breathable woodcrete to provide the optimum environment for sparrows to nest and rear their chicks.



**Positioning:** On buildings of all kinds in typical habitats including industrial buildings and barns at a height of at least 2m (e.g. under eaves)

**Suitable for:** House and tree sparrows and individual redstarts

**Material:** Woodcrete PLUS

**Height:** 240mm

**Width:** 430mm

**Depth:** 220mm

**Weight:** 15kg

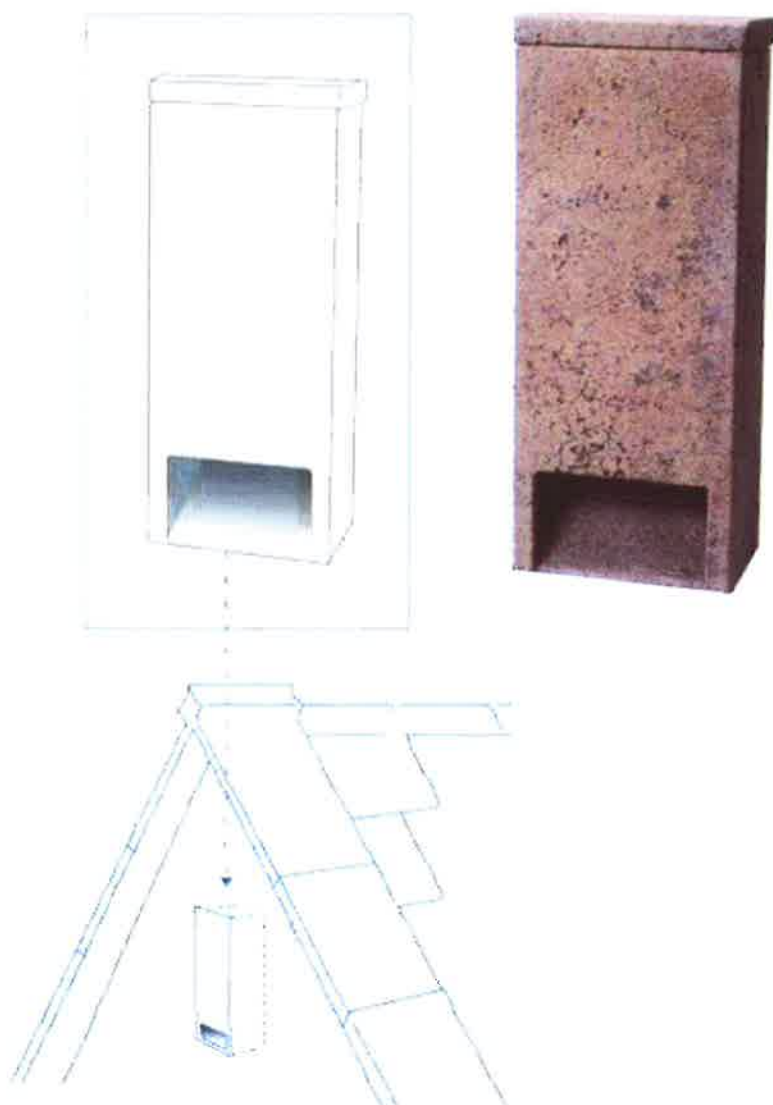
### Habibat Integrated Sparrow Terrace

Made of insulating concrete with three internal roost spaces, this sparrow terrace can be seamlessly integrated into the fabric of a building. Can be faced to suit the design build, including brick, block, stone, wood or a rendered finish.

Dimensions: 44 x 21.5 x 15 cm.



## Appendix 10: Schwegler 1FR Bat Tube



Tube not rendered



Tube rendered over

