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## **BAT PRESENCE/ABSENCE SURVEY REPORT**

### **UNIT 28, PANTGLASS, BEDWAS**

### **CDB PLANNING AND ARCHITECTURE**

DOCUMENT REF: WWE22117 BAS FINAL | 08/12/2022

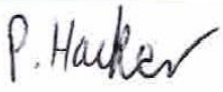
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|                   |                                    |
|-------------------|------------------------------------|
| Client:           | CDB Planning and Architecture      |
| Site/Job:         | Unit 28, Pantglass, Bedwas         |
| Report title:     | Bat Presence/Absence Survey Report |
| Report reference: | WWE22117 BAS Final                 |

|                 |                                               |
|-----------------|-----------------------------------------------|
| Grid Reference: | ST 18196 88599                                |
| Survey date(s): | PRA: 08/07/2022<br>BAS: 12/08/2022            |
| Surveyed by:    | Amy Williams Schwartz, Elen Peel, Megan Abram |

## VERSIONING AND QUALITY ASSURANCE

| Status | Date       | Author(s)                                              | Reviewed by                             | Approved by                                                                           |
|--------|------------|--------------------------------------------------------|-----------------------------------------|---------------------------------------------------------------------------------------|
| Draft  | 24/10/2022 | Dr Amy Williams<br>Schwartz ACIEEM<br>Senior Ecologist | Peter Hacker ACIEEM<br>Senior Ecologist |  |
| Final  | 08/12/2022 | Dr Amy Williams<br>Schwartz ACIEEM<br>Senior Ecologist | Peter Hacker ACIEEM<br>Senior Ecologist |  |

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The evidence which we have prepared and provided is true, and has been prepared and provided in accordance with the guidance of The Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

## SUMMARY

|                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Purpose         | <ul style="list-style-type: none"> <li>Wildwood Ecology was commissioned by CDB Planning and Architecture (the client) to undertake a Preliminary Roost Assessment (PRA) and a Bat Survey of Unit 28, Pantglass, Bedwas.</li> <li>The site is the subject of a planning application for demolition of the existing building and construction of a replacement commercial building.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Work Undertaken | <ul style="list-style-type: none"> <li>A PRA was undertaken consisting of a desk study and field survey undertaken in July 2022 (field survey) and October 2022 (desk study) following best practice in line with the Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd edn (Collins 2016).</li> <li>A dusk bat survey was undertaken in August 2022 following best practice in line with the Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd edn (Collins 2016).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Key issues      | <p><u>Bats</u></p> <ul style="list-style-type: none"> <li>No bat roosts were confirmed within the onsite building.</li> <li>In the absence of mitigation there may be negative impacts on bat species if new lighting is introduced at the site.</li> </ul> <p><u>Birds</u></p> <ul style="list-style-type: none"> <li>Several species of birds were encountered during the surveys, including house sparrows which were nesting in the soffits of the office section on the western aspect of the building.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Recommendations | <p><u>Bats</u></p> <ul style="list-style-type: none"> <li>A European Protected Species licence (EPSL) will not be required for this site and works may proceed with no further consideration for bats.</li> <li>Two bat boxes should be installed on the southern aspect of the building as enhancement for bats.</li> <li>Trees and other vegetation around the edges of the site should remain unlit via the establishment of dark zones as these edges are used frequently by foraging bats.</li> </ul> <p><u>Birds</u></p> <ul style="list-style-type: none"> <li>Demolition of the building must be undertaken outside of the bird nesting season (therefore must take place between September and February inclusive) to avoid triggering legislation.</li> <li>Mitigation to provide replacement nesting areas for house sparrows will be required in the form of a house sparrow terrace installed on the new building. A further house sparrow terrace should be provided as enhancement.</li> </ul> |
| Conclusions     | <ul style="list-style-type: none"> <li>Providing that the recommendations outlined within this report are successfully implemented, it should be possible for the proposed development to proceed and for there to be no long-term impacts upon the key protected species present at the site.</li> <li>This ecological report will remain valid for a period of 18 months from the date of the last survey – i.e. until February 2024.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

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## 1 INTRODUCTION

- 1.1 Wildwood Ecology was commissioned by CDB Planning and Architecture (the client) to undertake a Preliminary Roost Assessment (PRA) and a Bat presence/absence survey at Unit 28, Pantglass, Bedwas (the site) centred at grid reference ST 18196 88599.
- 1.2 A PRA for bats and nesting birds was undertaken at the site on the 08/07/2022. This found the buildings affected by the development to have low bat roost suitability. A further bat survey (x1) was therefore recommended. The survey (dusk emergence) was undertaken on the 12/08/2022.

### Site description

- 1.3 The aerial image of the site (Figure 1) shows the site to consist of an area of hard standing with a single building at its western end. In this image, lorry trailers are seen parked along the eastern end.



**Figure 1 - Aerial image of the site (red line shows the site boundary). Image used under licence (©2022 Google). Imagery date 20/07/2021.**

- 1.4 Within the wider area surrounding the site is an industrial estate to the south-west, residential housing to the north, and an area of woodland and public park (Riverside Park) containing the Rhymney River to the east.



**Figure 2 – Aerial image of the site (red line shows the site boundary). Image used under licence (©2022 Google). Imagery date 20/07/2021.**

Proposed development

- 1.5 The site is the subject of a planning application for demolition of the existing building and construction of a replacement commercial building.

Purpose of this report

- 1.6 This report aims where possible to provide sufficient information for the local planning authority to fully assess the potential ecological impacts of the proposed development, or alternatively, to identify what further information is required to fully inform the scheme.
- 1.7 The results of the bat activity surveys have been used to establish the need for, and extent of, any mitigation or compensation measures required as part of the proposed development.

## 2 METHODOLOGY

### Desk study

- 2.1 A biodiversity desk study was undertaken in relation to the site in October 2022. The sources consulted and the type of information obtained are summarised in Table 1.

**Table 1 – Sources of biodiversity and ecological records.**

| Source                                                                       | Information requested<br>(search buffer from site centre/boundary)                                                                                                                    |
|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| South East Wales Biodiversity Records Centre (SEWBReC)                       | <ul style="list-style-type: none"><li>• Bats and roof-nesting birds only:<ul style="list-style-type: none"><li>○ Bats (2km)</li><li>○ Roof nesting birds (0.15km)</li></ul></li></ul> |
| Multi-Agency Geographic Information for the Countryside (MAGIC) <sup>1</sup> | <ul style="list-style-type: none"><li>• International statutory designations (5km)</li><li>• National statutory designations (2km)</li></ul>                                          |

- 2.2 The search buffers are considered to be sufficient to cover the potential zone of influence (Zol<sup>2</sup>) of the proposed development.
- 2.3 The impact of the proposed development on the biological integrity of any nearby designated protected sites has been fully considered.
- 2.4 Data for bats and birds only was obtained from South East Wales Biodiversity Records Centre (SEWBReC) as the proposals will only impact on the building, hence data for other species would be irrelevant.
- 2.5 No previous survey information was available for the site itself.

### Field survey

- 2.6 A field survey was undertaken on 08 July 2022.
- 2.7 An assessment of the onsite building was undertaken in accordance with the latest published best practice guidance (Collins, 2016).
- 2.8 The building was externally and internally inspected for bats and their signs with the aid of high-powered lamps and close-focussing binoculars.
- 2.9 The suitability of the building to accommodate bats was assessed, along with a systematic search for signs of bats (e.g. droppings, moth wings, scratch marks, staining, etc.) or actual bats that were present. Particular attention was paid to the roof areas, with searches for any crevices or gaps in walls, gaps between beams and joists, droppings stuck to the walls, floors or other surfaces, or feeding remains below beams, in addition to a number of other factors and signs indicative of a bat roost.
- 2.10 In addition, the building was classified according to its suitability for bats, based on the presence of features within the structure and / or landscape (see Table 2).

<sup>1</sup> <http://magic.defra.gov.uk/MagicMap.aspx>

<sup>2</sup> Zol definition – ‘the areas/resources that may be affected by the biophysical changes caused by activities associated with a project’ (CIEEM, 2018).

**Table 2 – Summary of guidelines for assessing the potential suitability of proposed development sites for bats (from Collins 2016).**

| Suitability     | Description of building, tree, or structure                                                                                                                                                                                        | Number of activity survey visits required <sup>3</sup> |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| Negligible      | Negligible habitat features on site likely to be used by roosting bats.                                                                                                                                                            | None                                                   |
| Low             | A structure or tree with one or more potential roost sites that could be used by individual bats opportunistically. However, potential roost sites not suitable for larger numbers or regular use (i.e. maternity or hibernation). | One                                                    |
| Moderate        | A structure or tree with one or more potential roost sites that could be used by bats, but unlikely to support a roost of high conservation status.                                                                                | Two                                                    |
| High            | A structure or tree with one or more potential roost sites obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time.                                                | Three                                                  |
| Confirmed roost | Evidence of bats or use by bats found.                                                                                                                                                                                             | Minimum of two – to characterise the roost             |

#### Bat survey (dusk emergence)

- 2.11 A single bat survey (dusk emergence survey) was undertaken at the onsite building.
- 2.12 The dusk emergence survey commenced approximately 15 minutes before the time of local sunset (source [www.sunrisesunsetmap.com](http://www.sunrisesunsetmap.com)) and continued for approximately 1.5 hours after sunset.
- 2.13 Surveyors were equipped with broadband bat detectors (Elekon BatScanner Stereo). Elekon Batloggers was also deployed to record bat activity across the site.
- 2.14 Note was made of all bat activity recorded including (where appropriate) roost access points, species, time of re-entry, direction of flight, behaviour (foraging or commuting) and use of landscape features. Minimal lighting was used during the surveys as this can alter the behaviour of the bats emerging from or entering a roost, or foraging or commuting over a site.

#### Surveyor information

- 2.15 The PRA was undertaken by Amy Williams Schwartz. Bat surveys were led by Amy Williams Schwartz, assisted by Elen Peel and Megan Abram. See Table 3 for further information.

**Table 3 – Surveyor information.**

| Surveyor                                                                            | Licences   | Ecological experience                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Amy Williams Schwartz</b><br>Ph.D., M.Sc., B.Sc.<br>(Hons.), ACIEEM<br>Ecologist | Bat<br>GCN | Experienced in surveying for a wide range of protected species including great crested newt, reptiles, and bats within a consultancy and volunteer capacity. PhD in wildlife/road interactions in the UK, and experienced in performing academic ecological research projects, as well as species identification. |

<sup>3</sup> To provide confidence that bats are absent from the structure

| Surveyor                                                                   | Licences | Ecological experience                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Elen Peel</b><br>M.Sc., B.Sc. (Hons)<br>Seasonal Assistant<br>Ecologist |          | Holds a 2:1 honours degree in Conservation Biology and Ecology and a Masters in Conservation and Biodiversity. Has field experience through academia and volunteering opportunities. Experienced in undertaking protected species surveys including bats, reptiles and hazel dormice.                                                               |
| <b>Survey assistants</b><br>Megan Abram                                    | -        | All survey assistants received training in use of bat detectors and survey methodologies. Deemed competent and confident to use bat detectors to observe bats in flight and conduct an emergence/re-entry survey in conjunction with a licenced ecologist. Assistants backed up by experienced surveyors and/or recording detectors where possible. |

#### Limitations and assumptions

- 2.16 No limitations were encountered, or assumptions made, and it is considered that, with the access gained and recording undertaken, an accurate assessment of the site's ecological value in relation to bats was made.

### 3 RESULTS

#### Desk study

##### *Designated sites (statutory)*

- 3.1 There were no international statutory designations within 5km of the site and no national statutory designations within 2km (see Table 4).
- 3.2 There is one protected area (SSSIs or SACs) designated for its bat populations within 10km of the site – Ruperra Castle & Woodlands SSSI 4.1km to the south-west.

##### *Designated sites (non-statutory)*

- 3.3 There were no non-statutory designations within 1km of the site.

**Table 4 – Summary of designated sites in range of the site.**

| Site name                  | Designation | Description / key reason for designation                                                                                                                                                                                                                                                                                                                                                                     | Distance & direction |
|----------------------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| Ruperra Castle & Woodlands | SSSI        | The site is of special interest as the only known nursery roost for the greater horseshoe bat <i>Rhinolophus ferrumequinum</i> in the Mid and South Glamorgan Area of Search and one of only five known nursery roosts of this species in Wales. The buildings at Ruperra Castle, situated in Lower Machen, Caerphilly, support a colony of greater horseshoe bats of national and international importance. | 4.1km SW             |

*Protected species*

3.4 Table 5 summarises the priority and protected species records found within the local area.

**Table 5 – Bat and roof-nesting bird species records found in the vicinity of the site.**

| Protected & priority   |                            | # of records (# species) |              |                 | Further information                                                                                                                                                          |
|------------------------|----------------------------|--------------------------|--------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Groups                 | Species                    | Onsite                   | <500m        | >500m           |                                                                                                                                                                              |
| Bats                   | Common pipistrelle         | -                        | 1            | 66              | Closest record: bat care call <500m from site. Closest roost: 0.9km from site.                                                                                               |
|                        | Soprano pipistrelle        | -                        | 1            | 6               | Closest record: recorded on static detector 0.2km from site.                                                                                                                 |
|                        | Nathusius' pipistrelle     | -                        | 1            | -               | Closest record: recorded on static detector 0.2km from site.                                                                                                                 |
|                        | Unidentified pipistrelle   | -                        | 1            | 15              | Closest record: recorded on static detector 0.2km from site. Closest roost: 0.7km from site.                                                                                 |
|                        | Brown long-eared bat       | -                        | 2            | 9               | Closest record: recorded on static detector 0.2km from site. Closest roost: 0.6km from site.                                                                                 |
|                        | Noctule                    | -                        | 1            | 6               | Closest record: recorded on static detector 0.2km from site.                                                                                                                 |
|                        | Serotine                   | -                        | -            | 2               | Closest record: roost 1.2km from site.                                                                                                                                       |
|                        | Daubenton's bat            | -                        | -            | 1               | Closest record: foraging 2.0km from site.                                                                                                                                    |
|                        | Unidentified <i>Myotis</i> | -                        | -            | 8               | Closest record: heard on bat detector 0.8km from site.                                                                                                                       |
|                        | Unidentified bat           | -                        | -            | 13              | Closest record: bat care call 0.6km from site. Closest roost: 1.3km from site.                                                                                               |
|                        | <b>TOTALS</b>              | -                        | <b>7 (5)</b> | <b>126 (6+)</b> |                                                                                                                                                                              |
| Birds (non-Schedule 1) |                            | -                        | 11 (8)       | -               | Closest record: herring gull nest 0.1km from site. Other species records include blue tit, great tit, house sparrow, lesser black-backed gull, starling, swallow, and swift. |

### Field survey

3.5 Prevailing weather conditions during the field survey are summarised within Table 6.

**Table 6 – Summary of weather conditions during the PRA.**

| Date       | Type                         | Conditions |                     |                       |      | Personnel<br>* = licence holder |
|------------|------------------------------|------------|---------------------|-----------------------|------|---------------------------------|
|            |                              | Temp [°C]  | Cloud cover [Oktas] | Wind speed [Beaufort] | Rain |                                 |
| 08/07/2022 | Preliminary Roost Assessment | 23         | 1                   | 1                     | Nil  | AWS*                            |

3.6 A description of the building inspected during the PRA can be seen in Table 7.

**Table 7 – Onsite building information.**

| Building reference | Building type       | Description                                                                                                                                                                                                                                                                                                                           | Development plans |
|--------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| A                  | Warehouse & offices | Metal-clad warehouse building with attached two-storey offices on its west end, the ground floor of which is brick built. At the east of the building are two metal storage containers. Office section of the has wooden soffits. Interior of the warehouse is open and very light due to translucent panels in sections of the roof. | Demolition        |

3.7 The results of the PRA can be seen in Table 8.

**Table 8 – PRA results.**

| Building reference | Use by bats | Use by birds | Bat signs and internal and external Potential Roost Features (PRFs) & access points                                                                                                                                                                                                                                                                                                    |
|--------------------|-------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A                  | No          | Yes          | No signs of bats seen around the building. Gaps above roller shutter doors allow potential access into the warehouse, but interior of warehouse is very light and metal-clad, so is not particularly suitable for bats. There is a gap in the wooden soffits around the office section but this is being occupied by nesting house sparrows and bats are therefore unlikely to use it. |

### *Links to surrounding habitat*

3.8 Site has very good connectivity to mature semi-natural broadleaf woodland in the adjacent Riverside Park, and the site is <300m from the Rhymney River, which is likely to be an important foraging area for bats.

### Bat surveys (dusk emergence)

#### *Timing and conditions*

3.9 The survey timings and weather conditions during the bat survey can be seen in Table 9.

**Table 9 – Summary of survey timing and conditions during activity surveys.**

| Date       | Type           | Survey Timing |       |        | Conditions           |                     |                       |      |
|------------|----------------|---------------|-------|--------|----------------------|---------------------|-----------------------|------|
|            |                | Start         | End   | Sunset | Temp [°C]            | Cloud Cover [Oktas] | Wind Speed [Beaufort] | Rain |
| 12/08/2022 | Dusk emergence | 20:27         | 22:12 | 20:42  | Start: 25<br>End: 23 | Start: 0<br>End: 0  | Start: 0<br>End: 1    | Nil  |

3.10 The results of the bat survey (dusk emergence) are summarised in Table 10.

**Table 10 – Bat activity survey results. SS±xx refers to the time in minutes before/after sunset.**

| Survey type and date         | Roosts / points of particular interest                                                                                                                                                                                                             | General observations                                                                                                                                                    | Equipment Used                                    | Surveyors (*licenced) |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-----------------------|
| Dusk emergence<br>12/08/2022 | <ul style="list-style-type: none"> <li>First bat heard at 20:53 (SS+11) pipistrelle species heard but not seen.</li> <li>No roosts observed.</li> <li>Brief and distant greater horseshoe pass by easternmost surveyor at edge of park.</li> </ul> | <ul style="list-style-type: none"> <li>Lots of common pipistrelle activity throughout the survey</li> <li>Several passes of soprano pipistrelle and noctule.</li> </ul> | BatLogger, BatScanner Stereo & Echo Meter Touch 2 | AWS*, EP, MA          |

3.11 Bat flight lines in and around the site can be seen in Appendix I.

## **4 INTERPRETATION AND ASSESSMENT**

- 4.1 The following interpretation and assessment is provided to ensure full compliance with legislation and both local and national planning policy (see Appendix IV).

### Bat survey (dusk emergence)

- 4.2 No bat roosts were confirmed within the onsite building.
- 4.3 Several bat species were recorded across the site, including greater horseshoe, common pipistrelle, soprano pipistrelle, and noctule.
- 4.4 There is potential for impacts on foraging and commuting bat species if new external lighting is introduced to the site.

### Nesting birds

- 4.5 The onsite building had suitability for nesting birds and signs of nesting behaviour and nesting birds were observed.
- 4.6 House sparrows were seen repeatedly entering a hole in the south-western face of the building, and chicks could be heard from the inside of the building. Additionally, gulls are likely to use the building for breeding – many of the surrounding buildings had recently-fledged juveniles and adults in attendance on the roofs.
- 4.7 Bird species observed during the surveys included: blackbird, chiffchaff, collared dove, house martin, house sparrow, jackdaw, magpie, robin, swallow, woodpigeon, and wren.
- 4.8 In the absence of mitigation, there will be a negative impact on bird species as a result of the proposed development of the site.

## **5 CONCLUSIONS AND RECOMMENDATIONS**

- 5.1 Wildwood Ecology was commissioned by CDB Planning and Architecture (the client) to undertake a Bat Survey (dusk emergence) for bats at Unit 28, Pantglass, Bedwas.
- 5.2 The site is the subject of a planning application for demolition of the existing building and construction of a replacement commercial building.

### Bat activity survey

- 5.3 No bat roosts were confirmed within the onsite building.
- 5.4 A European Protected Species licence (EPSL) will therefore not be required for this site.
- 5.5 There will be a negative impact on bat species if new lighting is introduced, however current plans for the proposed development show no new external lighting will be installed.
- 5.6 Dark zones should be set up along the southern and eastern boundaries of the site as bats are using these areas frequently for foraging, including light-averse species (greater horseshoe bat). See Figure 4 for locations of areas to remain unlit.
- 5.7 If additional lighting is required on site, this should not illuminate any bat boxes or vegetation, and a lighting plan will be required to demonstrate that the proposed lighting will not negatively impact foraging bats that are using the site.
- 5.8 Two bat boxes should be installed on the southern aspect of the site (see Appendix II for recommended locations) as enhancement for bats in the area.

### Nesting birds

- 5.9 Several species of birds were encountered during the surveys, including house sparrows which were nesting in the soffits of the office section on the western aspect of the building.
- 5.10 Demolition of the building must be undertaken outside of the bird nesting season (therefore must take place between September and February inclusive) to avoid triggering legislation.
- 5.11 Mitigation to provide replacement nesting areas for house sparrows will be required in the form of a house sparrow terrace installed on the new building. An additional house sparrow terrace should also be installed on the western aspect of the building as enhancement – see Appendix II for recommended locations).

### Biodiversity enhancement

- 5.12 Local Authorities have a duty to seek to maintain and enhance biodiversity in the exercise of their functions.
- 5.13 Where possible the existing onsite habitat will be retained to ensure that species are not adversely affected by the development. Native species of local provenance will be used for any new planting on the site.
- 5.14 Bird nesting boxes and bat roosting boxes (over and above that required for mitigation on this site) should be incorporated within any newly constructed

buildings (see Appendix II for locations). Many designs are available, and we would initially recommend the following for this site:

- Bats - <https://www.nhbs.com/beaumaris-woodstone-bat-box>
- House Sparrow – <https://www.nhbs.com/vivara-pro-woodstone-house-sparrow-nest-box>

#### Overall conclusion

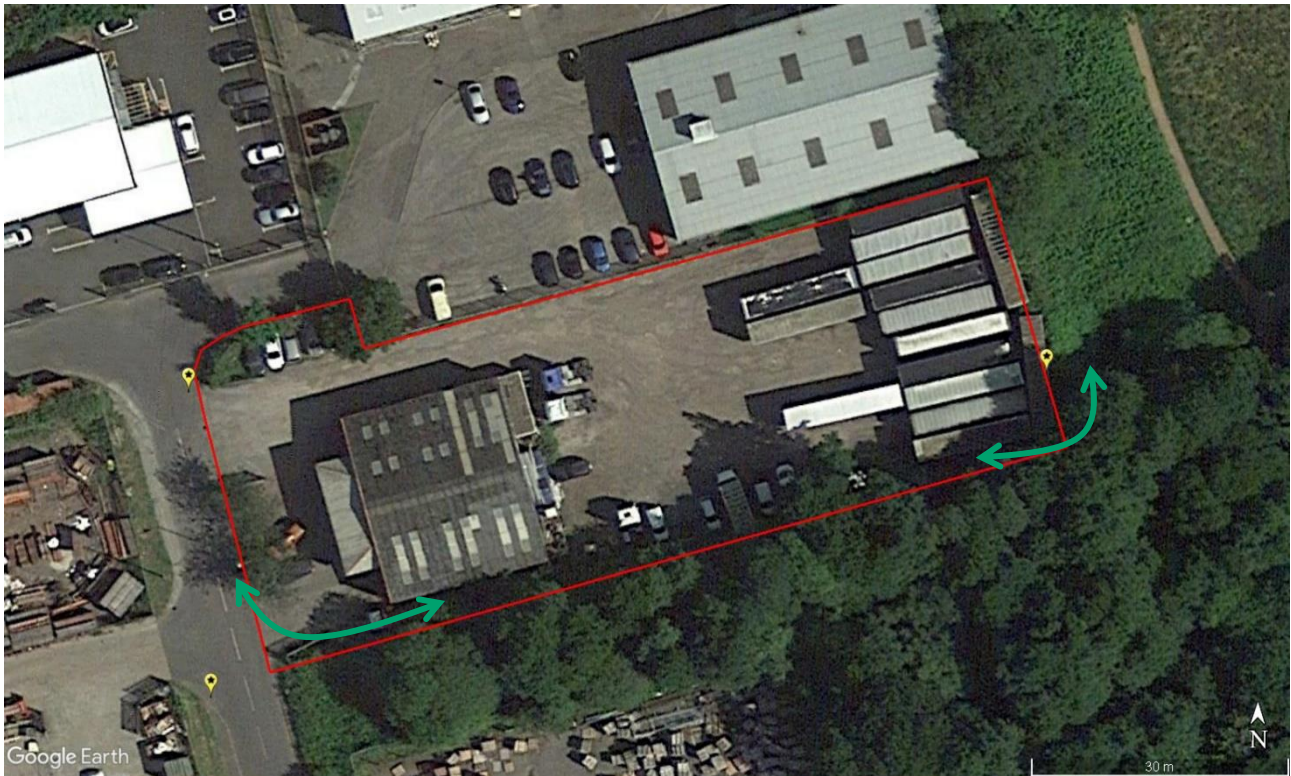
- 5.15 Providing that the recommendations outlined within this report are successfully implemented, it should be possible for the proposed development to proceed and for there to be no long-term impacts upon the key protected species present at the site.

|                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>This ecological report will remain valid for a period of 18 months from the date of the last survey – i.e. until February 2024. Further surveys may be required to update the site information if planning is not obtained or works do not commence within that time period.</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## 6 REFERENCES

- Bat Conservation Trust and the Institution of Lighting Professionals (2018) Bats and artificial lighting in the UK; *Bats and the Built Environment* series (Guidance Note 08/18), The Bat Conservation Trust, London.
- Collins, J. (ed.) (2016) Bat surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.
- Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey; A technique for environmental audit. Reprinted by JNCC, Peterborough.
- Mitchell-Jones, A.J. & McLeish, A.P. Ed., (2004) 3rd Edition Bat Workers' Manual. Joint Nature Conservation Committee, Peterborough.
- Mitchell-Jones, A.J. (2004) Bat Mitigation Guidelines. Natural England, Peterborough.
- Rowse E.G., Lewanzik D., Stone E.L., Harris S., Jones G. (2016) Dark Matters: The Effects of Artificial Lighting on Bats. In: Voigt C., Kingston T. (eds) Bats in the Anthropocene: Conservation of Bats in a Changing World. Springer, Cham.

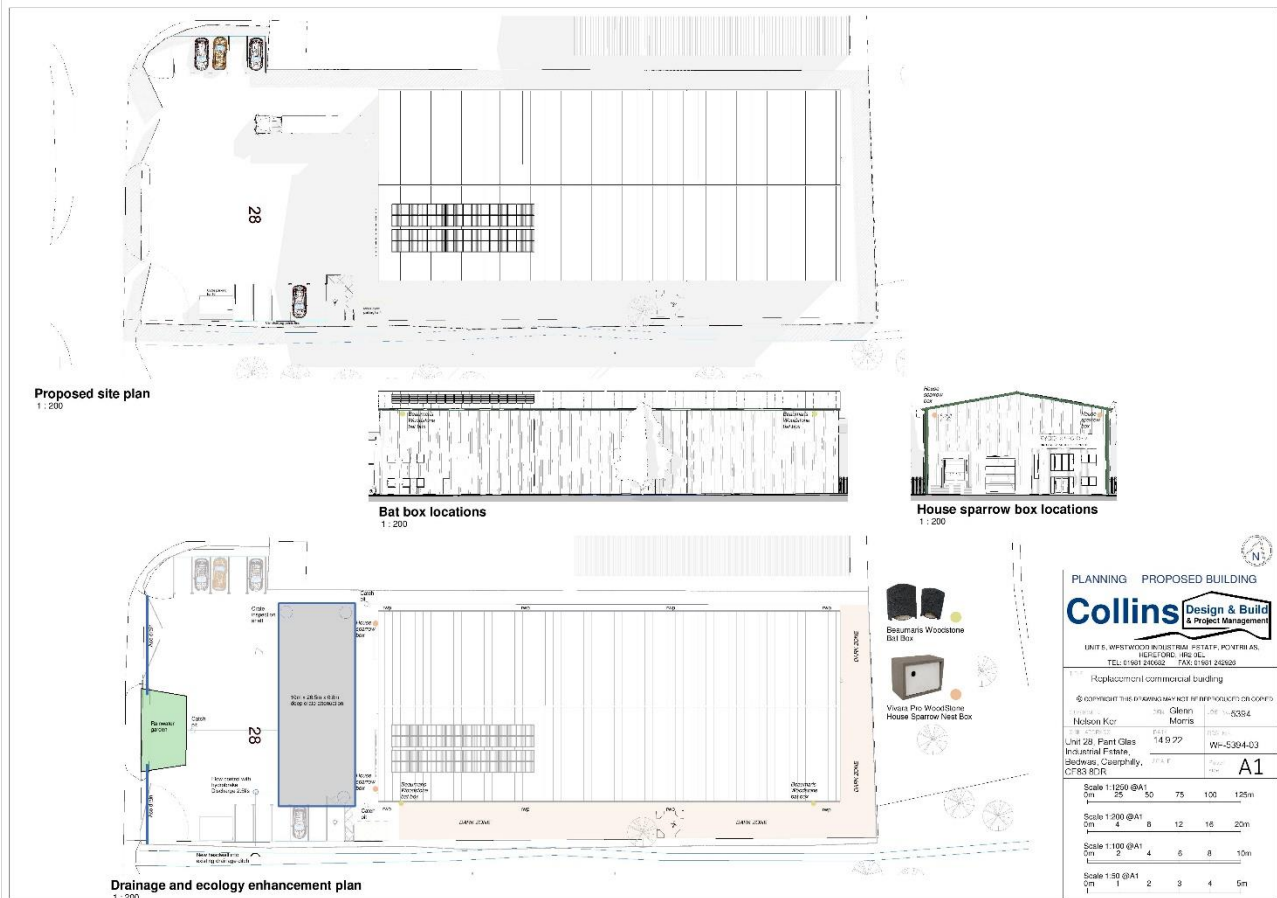
## APPENDIX I: BAT ACTIVITY SURVEY PLAN



**Figure 3 - Bat activity survey plan. Yellow pins denote surveyor locations, arrows show common bat foraging paths.**

*Note: Contrary to the above image, no trailers were parked at the east of the site at the time, so the eastern surveyor had an unobscured view of the rear of the building.*

## APPENDIX II: PROPOSED DEVELOPMENT PLAN



**Figure 4 - Proposed site plans for new building. Locations for bat and bird boxes are shown on the plans, as is the area which is to remain as a 'dark zone' for foraging bats and other nocturnal wildlife.**

## APPENDIX III: SPECIES LIST

To be submitted to the appropriate Local Records Centre

**Site Name:** Unit 28, Pantglass, Bedwas  
**Grid ref:** ST 18196 88599

**Provided by:** Wildwood Ecology  
**Verified by:** Amy Williams Schwartz

| Common name         | Scientific Name<br>(if known)    | Number | Comment              | Survey Date |
|---------------------|----------------------------------|--------|----------------------|-------------|
| <b>Bats</b>         |                                  |        |                      |             |
| Common pipistrelle  | <i>Pipistrellus pipistrellus</i> |        | Foraging             | 12/08/2022  |
| Greater horseshoe   | <i>Rhinolophus ferrumequinum</i> |        | Quick pass           | 12/08/2022  |
| Noctule             | <i>Nyctalus noctula</i>          |        | Foraging / commuting | 12/08/2022  |
| Soprano pipistrelle | <i>Pipistrellus pygmaeus</i>     |        | Foraging / commuting | 12/08/2022  |
| <b>Birds</b>        |                                  |        |                      |             |
| Blackbird           | <i>Turdus merula</i>             |        |                      | 12/08/2022  |
| Chiffchaff          | <i>Phylloscopus collybita</i>    |        |                      | 12/08/2022  |
| Collared dove       | <i>Streptopelia decaocto</i>     |        |                      | 12/08/2022  |
| House martin        | <i>Delichon urbicum</i>          |        |                      | 12/08/2022  |
| House sparrow       | <i>Passer domesticus</i>         |        | Nesting in building  | 12/08/2022  |
| Jackdaw             | <i>Corvus monedula</i>           |        |                      | 12/08/2022  |
| Magpie              | <i>Pica pica</i>                 |        |                      | 12/08/2022  |
| Robin               | <i>Erithacus rubecula</i>        |        |                      | 12/08/2022  |
| Swallow             | <i>Hirundo rustica</i>           |        |                      | 12/08/2022  |
| Woodpigeon          | <i>Columba palumbus</i>          |        |                      | 12/08/2022  |
| Wren                | <i>Troglodytes troglodytes</i>   |        |                      | 12/08/2022  |

## **APPENDIX IV: PLANNING POLICY AND LEGISLATION**

The following local and national planning policy and both primary and European legislation relating to nature conservation and biodiversity status are considered of relevance to the current proposal.

### Planning and biodiversity

Local Authorities have a requirement to consider biodiversity and geological conservation issues when determining planning applications under the following planning policies.

#### *Planning Policy Wales (2021) and Technical Advice Note 5 (2009)*

Planning Policy Wales (Edition 11, February 2021) sets out the land use planning policies of the Welsh Government, integrating the Environment (Wales) Act (2016) requirements. The advice contained within Planning Policy Wales (PPW) is supplemented for some subjects by Technical Advice Notes (TANs).

TAN 5 (Welsh Government, 2009) specifically provides advice about how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation. The TAN provides advice for local planning authorities on the key principles of positive planning for nature conservation; nature conservation and Local Development Plans; nature conservation in development management procedures; development affecting protected internationally and nationally designated sites and habitats; and development affecting protected and priority habitats and species.

Under Section 2.4 within the TAN 5, 'when deciding planning applications that may affect nature conservation local planning authorities should':

- Pay particular attention to the principles of sustainable development, including respect for environmental limits, applying the precautionary principle, using scientific knowledge to aid decision making and taking account of the full range of costs and benefits in a long term perspective;
- Contribute to the protection and improvement of the environment, so as to improve the quality of life and protect local and global ecosystems, seeking to avoid irreversible harmful effects on the natural environment;
- Promote the conservation and enhancement of statutorily designated areas and undeveloped coast;
- Ensure that appropriate weight is attached to designated sites of international, national and local importance;
- Protect wildlife and natural features in the wider environment, with appropriate weight attached to priority habitats and species in Biodiversity Action Plans;
- Ensure that all material considerations are taken into account and decisions are informed by adequate information about the potential effects of development on nature conservation;
- Ensure that the range and population of protected species is sustained;
- Adopt a step-wise approach to avoid harm to nature conservation, minimise unavoidable harm by mitigation measures, offset residual harm by compensation

measures and look for new opportunities to enhance nature conservation; where there may be significant harmful effects local planning authorities will need to be satisfied that any reasonable alternative sites that would result in less or no harm have been fully considered

### Legislation and biodiversity

Certain species of animals and plants found in the wild in the UK are legally protected from being harmed or disturbed. These species are listed in the Wildlife and Countryside Act 1981 (as amended) or are named as European Protected Species (EPS) in the Conservation of Habitats and Species Regulations 2017 (as amended). These two main pieces of legislation have been consulted when writing this report and are therefore described in detail within this section.

Other relevant legislation and policy documents that have been consulted include – The Environment (Wales) Act 2016; The Countryside and Rights of Way Act 2000; The Hedgerow Regulations 1997; Biodiversity Action Plans, both UK-wide (UKBAP) and Local plans (LBAPs), and The National Planning Policy Framework (NPPF).

There is also legislation that legally protects certain animals - for example, the Protection of Badgers Act (1992) protects badgers and their setts, and the Deer Act (1991) places restrictions on actions that can be taken against deer species.

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

Section 6 of the Act places a duty on public authorities to 'seek to maintain and enhance biodiversity' so far as it is consistent with the proper exercise of those functions. In so doing, public authorities must also seek to 'promote the resilience of ecosystems'. The duty replaces the section 40 duty in the Natural Environment and Rural Communities Act 2006 (NERC Act 2006), in relation to Wales, and applies to those authorities that fell within the previous duty.

Public authorities will be required to report on the actions they are taking to improve biodiversity and promote ecosystem resilience.

Section 7 replaces the duty in section 42 of the NERC Act 2006. The Welsh Ministers will publish, review and revise lists of living organisms and types of habitat in Wales, which they consider are of key significance to sustain and improve biodiversity in relation to Wales.

The Welsh Ministers must also take all reasonable steps to maintain and enhance the living organisms and types of habitat included in any list published under this section, and encourage others to take such steps.

#### *Wildlife & Countryside Act 1981 (as amended)*

The Wildlife & Countryside Act 1981 (as amended) [WCA] is the primary legislation for England and Wales for the protection of flora, fauna and the countryside. Part I within the Act deals with the protection of wildlife.

Most European Protected Species offences are now covered under the Conservation of Habitats and Species Regulations (see below), but some 'intentional' acts are still covered under the WCA, such as obstructing access to a bat roost.

The WCA prohibits the release to the wild of non-native animal species listed on Schedule 9 (e.g. Signal Crayfish and American Mink). It also prohibits planting in the wild of plants listed in Schedule 9 (e.g. Japanese Knotweed and *Rhododendron ponticum*) or otherwise deliberately causing them to grow in the wild. This is to prevent the release of invasive non-native species that could threaten our native wildlife.

The provisions relating to animals in the Act only apply to 'wild animals'; these are defined as those that are living wild or were living wild before being captured or killed. It does not apply to captive bred animals being held in captivity.

There are 'defences' provided by the WCA. These are cases where acts that would otherwise be prohibited by the legislation are permitted, such as the incidental result of a lawful operation which could not be reasonably avoided, or actions within the living areas of a dwelling house.

Licensing: certain prohibited actions under the Wildlife and Countryside Act may be undertaken under licence by the proper authority. For example scientific study that requires capturing or disturbing protected animals can be allowed by obtaining a licence – e.g. bat surveys.

#### *Conservation of Habitats and Species Regulations 2017 (as amended)*

The Conservation of Habitats and Species Regulations 2017 (as amended) (which are the principal means by which the EC Habitats Directive is transposed in England and Wales) update the legislation and consolidate all the many amendments which have been made to the Regulations since they were first made in 1994.

These regulations provide for the:

- protection of European Protected Species [EPS] (animals and plants listed in Annex IV Habitats Directive which are resident in the wild in Great Britain) including bats, dormice, great crested newts, and otters;
- designation and protection of domestic and European Sites - e.g. Site of Special Scientific Interest [SSSI] and Special Area of Conservation [SAC]; and
- adaptation of planning controls for the protection of such sites and species.

Public bodies (including the Local Planning Authority) have a duty to have regard to the requirements of the Habitats Directive in exercising their function – i.e. when determining a planning application.

There is no defence that an act was the incidental and unavoidable result of a lawful activity.

Licensing: it is possible for actions which would otherwise be an offence under the Regulations to be undertaken under licence issued by the proper authority. For example, where a European Protected Species has been identified and the development risks deliberately affecting an EPS, then a 'development licence' may be required.

#### Species protection

The following protected species information is relevant to this report. Legislation is only discussed in relation to planning and development; other offences may exist.

### *Bats*

All British bats are classed as European Protected Species and therefore receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended), making it an offence *inter alia* to:

- Deliberately kill, injure or capture a bat;
- Deliberately disturb bats;
- Damage or destroy a breeding site or resting place of a bat.

In addition, all British bats are also listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) which contains further provisions making it an offence to intentionally or recklessly:

- Obstruct access to any structure or place which any bat uses for shelter or protection; or
- Disturb any bat while occupying a structure or place which it uses for that purpose.

If proposed development work is likely to destroy or disturb bats or their roosts, then a licence will need to be obtained from Natural Resources Wales, which would be subject to appropriate measures to safeguard bats.

### *Birds*

In the UK, the provisions of the Birds Directive are implemented through the Wildlife & Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2017 (as amended). All wild birds, their nests and eggs are protected it an offence to:

- kill, injure, or take any wild bird;
- take, damage or destroy the nest of any such bird whilst it is in use or being built; or
- take or destroying an egg of any such wild bird.

The law covers all species of wild birds including common, pest or opportunistic species. Special protection against disturbance during the breeding season is also afforded to those species listed on Schedule 1 of the Act