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# The Former CO-OP Site, Llay, Wrexham

# Bat and Nesting Bird Assessment

**Former Co-op Site**
**Shones Lane**
**Llay**
**Wrexham**
**LL12 0PL**

**Produced by P J Ecological Solutions on behalf of**
**First Choice Housing Association LTD**

**October 2024**

**Version 1**

**Report by Paul Roberts**
**Reviewed by Matthew Whitehead**

# Executive Summary


***Instruction***

P J Ecological Solutions were commissioned by First Choice Housing Association Ltd to undertake a protected species survey of the CO-OP site at Shones Lane, Llay, Wrexham. The survey was commissioned to ascertain whether the proposed works thereto have the potential to affect protected species, particularly bats and nesting birds, and to make recommendations as appropriate. The proposals are for the demolition of a former retail unit and construction of four apartments and staff accommodation in its place.

***Results***

A review of the information retrieved during the desk study identified no statutory or non-statutory designated sites within 1km of the site. As such, and due to the nature of the proposals and the size of the project, no impacts are expected upon any such sites because of the proposed development. No records were retrieved of any protected or priority species likely to be affected by the proposed development, other than bats or nesting birds.

A preliminary roost assessment of the external of the building has been undertaken. Based upon the building's fabric and features, it would normally be categorised as having moderate potential to support roosting bats. However, as no inspection of the building's interior spaces was possible, the building was categorised as having high potential to support roosting bats. Accordingly, three bat emergence surveys of the building have been undertaken, during which no bats were recorded or observed emerging from any part of the building.

No nesting birds or evidence thereof were found during the inspection of the building or during the bat emergence survey undertaken; however, the vegetation to the rear of the building is considered likely to support nesting birds.

***Required Actions***

Some bat foraging and commuting activity was noted to the vegetated rear of the building. To avoid detrimental impact on bats using these habitats, care must be taken to ensure that no new artificial lighting associated with the proposed development is allowed to spill onto these habitats.

No other specific mitigation measures for roosting bats are recommended, and no further surveys are recommended. However, if works are delayed into the active season for bats (May to September, inclusive) 2026, then further bat surveys should be carried out prior to their commencement. In the unlikely event that a bat is found during the works, the procedure detailed in Appendix 1 should be followed.

To mitigate the risk of disturbance of or harm to nesting birds, the works will be undertaken outside of the peak nesting period (March – August, inclusive). Alternatively, if this is not possible, then a suitably qualified ecologist will be engaged to undertake a nesting bird check of the vegetation immediately prior to the commencement of works, to ensure that no nests are present.

In the unlikely event that a nesting bird is found during the works, the procedure detailed in Appendix 1 should be followed.

***Biodiversity Enhancement Provisions***

To comply with Section 6 of the Environment (Wales) Act 2016, local planning authorities are required to look for biodiversity gain within the planning system. Accordingly, as biodiversity enhancement provisions, two Vivara Pro Build-in WoodStone Bat Boxes will be erected upon the south-facing elevation of the proposed building and two WoodStone Estella House

Sparrow Nest Boxes will be erected upon the north elevation of the new building. In addition, 5 no. native species of fruit trees (bird cherry, rowan and crab apple) are to be planted in the garden area of the new dwelling.

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# 1 Introduction

P J Ecological Solutions were commissioned by First Choice Housing Association Ltd to undertake a protected species survey of the CO-OP site at Shones Lane, Llay Wrexham. LL12 0PL. (Grid Reference:SJ33335535; hereafter referred to as 'the site').

The survey was commissioned to ascertain whether the proposed works thereto have the potential to affect protected species, particularly bats and nesting birds, and to make recommendations as appropriate. The proposals are for the demolition of a former retail unit and construction of four apartments and staff accommodation in its place.

The site is set in an urban location within the village of Llay (see Figure 1.1). It is surrounded by residential dwellings to the south, east and west, and by a large commercial unit to the north. The urban environment gives way to the Llay United Youth Football Club recreation ground ~100m north of the site, and to Hall Wood, which is connected to the Alyn Waters Country Part, ~100m southwest of the site.

A detailed desk study of the surrounding area and a preliminary roost assessment and nesting bird assessment of the building has been undertaken, in addition to a three bat emergence surveys. The aim of these efforts/this appraisal is to:

- Identify potential and actual habitat and species constraints pertinent to the development proposals.

- Detail further survey requirements and/or reasonable avoidance measures which should be adhered to during the proposed works, as appropriate.

- Identify opportunities for the proposed development to provide enhancements and add to the biodiversity resource within the site.




**Figure 1.1:** A 1:10,000 aerial view of the site (in red) and its surrounding habitats.

# 2 Method

## 2.1 Desk Study

### 2.1.1 Statutory and Non-Statutory Designated Sites

A desk-based study was undertaken to identify nearby habitats of importance and features providing local habitat connectivity, and to identify the presence of statutory and non-statutory designated sites within the vicinity of the site. These include:

- ***International recognised statutory designations:*** Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar Sites.

- ***National recognised statutory designations:*** Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs).

- ***Local level non-statutory designations:*** County Wildlife Sites (CWSs), Local Nature Reserves (LNRs), Sites of Importance for Nature Conservation (SINCs), North Wales Wildlife Trust Reserves (NWWT reserves), and Royal Society for the Protection of Birds Reserves (RSPB reserves).

The search (1km radius) was carried out using the Multi-Agency Geographic Information for the Countryside (MAGIC) website's interactive mapping application, and the Natural Resources Wales (NRW) website's Designated Site Search function.

### 2.1.2 Species Records Pertinent to the Assessment

A full records search from the local environmental records centre has not been undertaken at this stage of the project; however, a search (1km radius) for species records pertinent to the assessment was undertaken using the interactive mapping applications available on the MAGIC, DataMapWales and National Biodiversity Network (NBN) websites.

## 2.2 Preliminary Roost Assessment

A preliminary roost assessment of the building was undertaken on the 17th of July 2024 by Paul Roberts, an experienced and licenced ecological consultant (license number: S091932/1). Potential roosting features were accessed using a suitably tall ladder and inspected using a Clulite CB2-L2 high-powered torch and a Rigid CA-150 Inspection Camera. A detailed inspection of the building's exterior was carried out in accordance with the methodology prescribed within the *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Bat Conservation Trust, 2023). The building was then categorised in accordance with Table 4.1 of that document.

During the inspection, note was made of the number and nature of any potential roosting features, and/or of any points of entry/exit, such as:

- Cracks or crevices within walls; lifted paintwork, render, plaster, felt, or lead flashing; loose or lifted roof tiles or ridge tiles; loose windowsills and window frames, gaps behind fascias, soffits, bargeboards, weatherboard or hanging tiles; exposed eaves or wall plates; aged or badly fitted wooden roof supports; or thick vegetation cover.

- Holes within the walls or roof; broken/missing doors or windows; gaps between the walls and fascias, soffits or bargeboards; exposed eaves or wall plates; basement grills; broken ventilation outlets; or points of vegetation penetration.

A search for bats or evidence thereof (such as droppings, claw marks, or oil or urine staining) was undertaken, paying especial attention to:

- roof timbers and beams (especially within mortise and tenon joints and where ridge and hip beams meet); at the top of gable end walls, connecting walls, and chimney breasts; and behind roofing felt.

During the inspection of the building, notes were made of any evidence of current or historic use by nesting birds.

The inspection was undertaken in accordance with the advice provided in the document *Guidance on Ecological Survey and Assessment in the UK During the COVID-19 Outbreak (Version 4)*, produced by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2021).

## 2.3 Bat Emergence Surveys

Three bat emergence surveys were carried out in accordance with the methodology prescribed within *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Bat Conservation Trust, 2023). The surveys were undertaken by Paul Roberts using an Echometer Touch 2 Pro bat detector, in addition to Sony FDR-AX100 and Sony FDR-AX53 infrared cameras, each of which was was paired with a Pettersson M500-384 or Pettersson U384 bat detector (see Figures 2.1 and 2.2). The survey was undertaken under the conditions detailed in Table 2.1.

**Table 2.1:** The details of the emergence survey undertaken.

| Type of Survey | Date and Time | Weather Conditions at Sunset/Sunrise |
|---|---|---|
| Emergence Survey | 17th July 2024<br>20.45 – 22.46 | Sunset Time: 21.28;<br>14.°C, Dry, Slight SW Wind, 60% Cloud Cover |
| Emergence Survey | 11th Aug 2024<br>20.15 – 22.16 | Sunset Time: 20.46<br>13.5.°C, Dry, Slight SSW Wind, 40% Cloud Cover |
| Emergence Survey | 03rd Sept 2024<br>19.25 – 21.25 | Sunset Time: 19.55;<br>14.°C, Dry, Slight Wind, 30% Cloud Cover |

The emergence surveys were undertaken between July and August, in dry and calm conditions, when the temperature at sunset was above 10°C, all of which is in accordance with the good practive guidelines provided in Section 7 of the BCT's *Bat Surveys for Professional Ecologists* (2023). The surveys commenced at least 30 minutes before sunset and continued until at least 90 minutes after sunset. As such there are no limitations associated with the timing and weather conditions of the surveys.

*N.B: Bat emergence surveys can only give a snapshot of bat behaviour at the time of the survey. As the potential of the site for roosting bats may change over time, it is recommended that bat surveys are updated after two years if development has not yet commenced.*

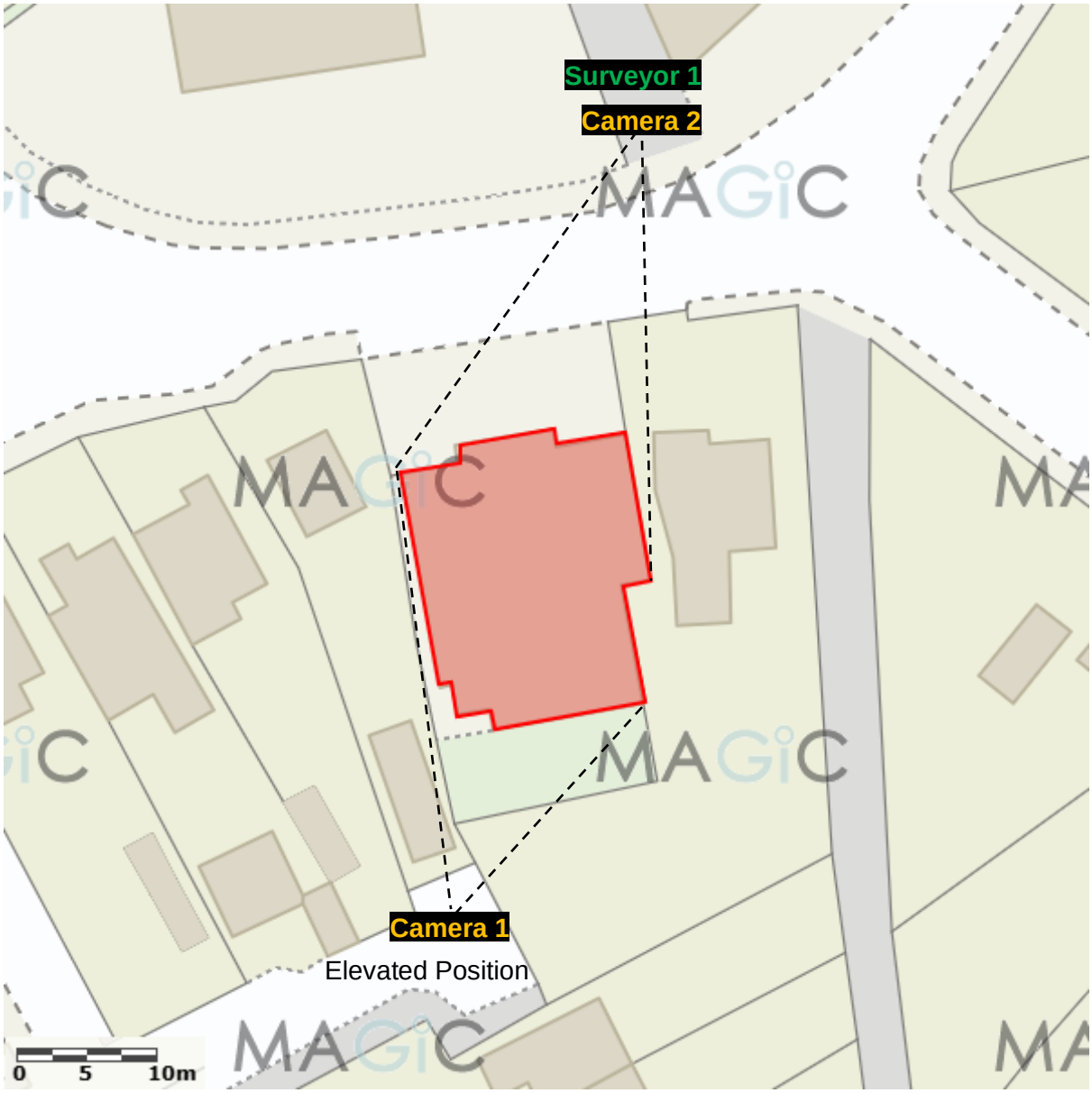



**Figure 2.1:** A 1:500 map view showing the positions of the surveyors/equipment during the emergence. The building to be demolished is shown in red.



**Figure 2.2:** The field of view of each of the cameras used at the darkest part of the survey (Left: Camera 1 – the Sony FDR-AX100; Right: Camera 2 – the Sony FDR-AX53. All footage was reviewed in real-time using the open-source PotPlayer software. All sonograms were manually reviewed using the SonoBat 30 UK bat call analysis software.

# 3 Results

## 3.1 Desk Study

### 3.1.1 Statutory and Non-Statutory Designated Sites

A review of the information retrieved during the desk study identified no statutory or non-statutory designated sites within 1km of the development area (see Figure 3.1). As such, given the nature of the proposals and the modest size of the project, no adverse impacts on any such sites are anticipated because of the proposed development.

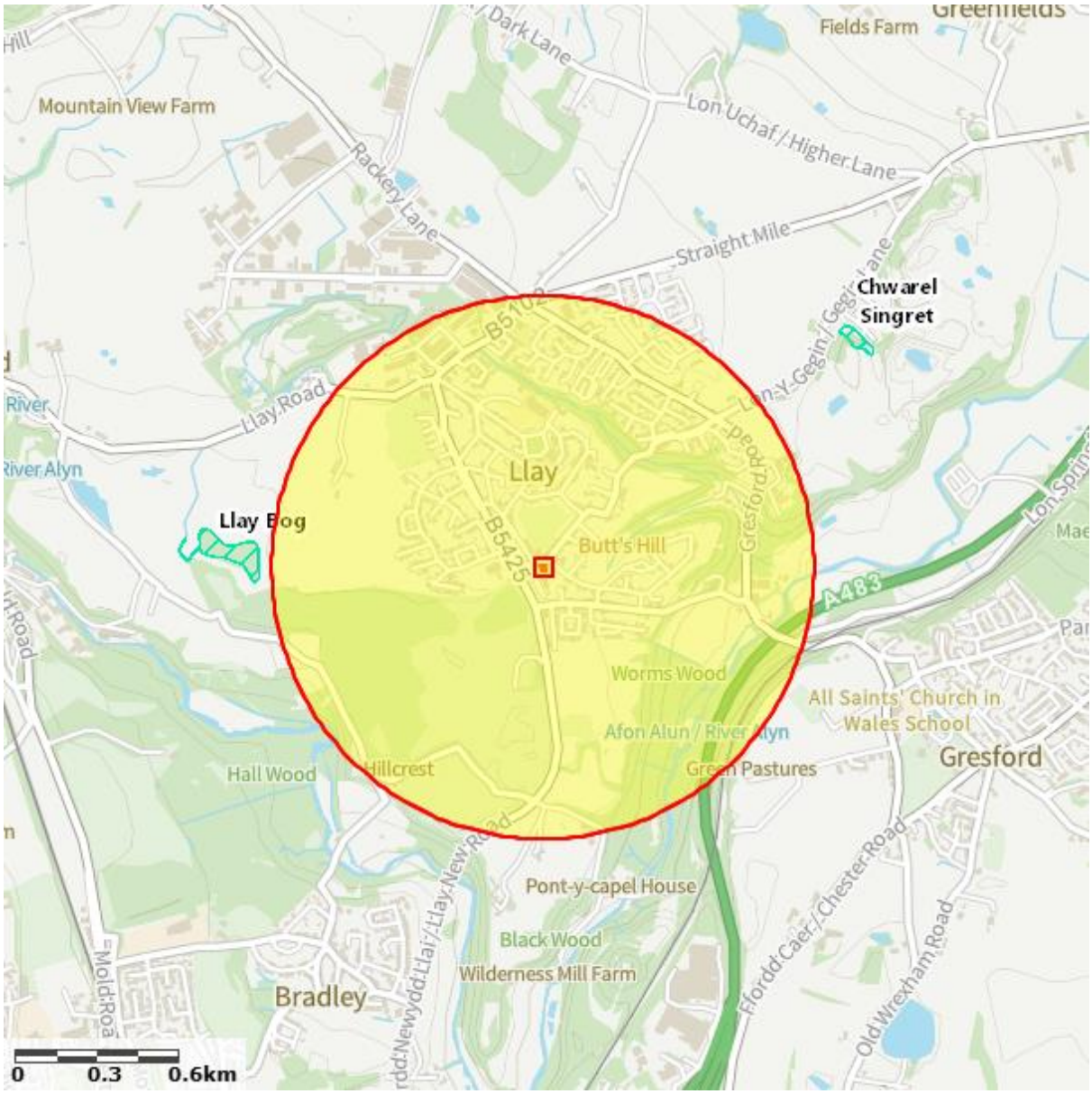



**Figure 3.1:** A 1:10,000 map view of the site relative to local designated sites.

### 3.1.2 Species Records Pertinent to the Assessment

A review of the information retrieved during the desk study identified a total 274 species records within 1km of the development area, including records of common pipistrelle bat (*Pipistrellus pipistrellus*). Local records of otter (*Lutra lutra*), great crested newt (*Triturus*

*cristatus*) and kestrel (*Falco tinnunculus*) were also retrieved; however, due to the habitats upon and immediately surrounding the site, and due to the nature of the proposals and the size of the project, the proposed development is not expected to have an adverse impact on any of these species.

## 3.2 Preliminary Roost Assessment

A description of the building to be demolished is provided in Table 3.1, below.

**Table 3.1:** The former co-op building.

| | |
|---|---|
| **Exterior Fabric and Features** | |
| Structure | • The building to be demolished comprises four sections. The main section consists of a duo pitched roof comprising felt, timber purlins and trusses. The rear and front gables of the main section are faced with timber panels. The remaining three sections are flat roof annexes comprising of felt and timber boarding. |
| Walls | • The walls of the building are constructed of modern brick faced with the occasional render in areas.<br>• The walls of the annexes are constructed of modern brick and are in a reasonable state of repair, with some gaps and crevices present. |
| Roof | • The roof of the main section is symmetrically pitched and the felt extends over to the annexes. The annexes are flat roof with timber and felt coverings. |
| Soffits, fascias and bargeboards | • There are no soffits although fascias are present in areas. Obvious gaps can be seen at the wall tops which could allow bats access into the building. |
| Windows, doors, and other points of access | • The front access point is a shutter and any windows that haven't been boarded are intact. There is a large hole in the roof of the main building. |
| External lighting | • There is significant artificial light spill onto the front of the building from the car showroom across the road along with street lighting. |
| Vegetation upon or immediate to the building | • The west side of the building contains overhanging trees from the neighbouring property and the rear of the building is covered by vegetation caused by the unmanaged courtyard. |
| **Interior Fabric and Features** | |
| Structure | • The building is in poor condition due to fire damage and the interior was not safely accessible. |
| Roof Structure, Roof Lining and Roof Void | • As the internal of the building was inaccessible, no inspection of these spaces was possible. However, it is understood that the roof is supported by a fire damaged timber frame and panelling. |
| Light Penetration and Weather proofing | • As the internal of the building was inaccessible, no inspection of these spaces was possible. |
| **Evidence of Roosting Bats or Nesting Birds** | |
| Evidence of bats or bat roosts | • No bats or evidence thereof were found. However, as the internal of the building is inaccessible, no inspection of these spaces was possible. |
| Evidence of nesting birds | • No nesting birds or evidence thereof were found. |

**Summary:** Potential roosting features are present where the loose and missing render has exposed gaps, beneath the loose panelling at the rear of the gable, and beneath the gaps underneath the fascias. Further, access to the building's interior spaces is also available via a large hole in the roof. No evidence of roosting bats was found upon or within the exterior of the building; however, no inspection of the building's interior spaces was possible.

Based upon the building's fabric and features, it would normally be categorised as having moderate potential to support roosting bats. However, as no inspection of the building's interior spaces was possible, the building was categorised as having high potential to support roosting bats.

No nesting birds or evidence thereof were found; however, the vegetation to the rear of the building is likely to support nesting birds.

Photographs showing the above features and findings are included below (see Figures 3.2 to 3.6).



**Figure 3.2:** The north (front) elevation of the building showing the damaged roof which allows access into the building and gaps above the doorway of the annex.




**Figure 3.3:** The side elevation showing gaps providing access to the interior of the building.



**Figure 3.4:** Loose render and gaps underneath the roof.



**Figure 3.5:** Loose render and gaps along the roof.



**Figure 3.6:** Showing the roof and the loose panelling on the rear gable.

## 3.1 Bat Emergence Surveys

***17th of July 2024:*** During the first emergence survey, no bats were observed emerging from the building. The first bat recorded was a common pipistrelle bat d at 21.45. This bat was recorded at the rear of the building. Further common pipistrelle bats were recorded at 21.46. 21.47, 21.49 and 21.52, all from the same position. Soprano pipistrelle bats were recorded at 21.51 and 22.07, again from the same position. Overall, the bat activity to the rear of the building was considered moderate. No other bats were recorded or observed during the survey.

***11th of August 2024:*** During the second emergence survey, no bats were observed emerging from the building. The first bat recorded was a common pipistrelle bat at 21.11. This bat was recorded at the rear of the building. A further common pipistrelle bat was recorded at 21.39 in a similar position. Soprano pipistrelle bats were recorded at 21.13 and 21.39. A common noctule bat was recorded at 22.14. Overall, the bat activity was considered moderate. No other bats were recorded or observed during the survey.

***03rd of September 2024:*** During the third emergence survey, no bats were observed emerging from the building. The first bat recorded was a common pipistrelle bat at 20.14. This bat was recorded to the rear of the building. Further common pipistrelle bats were recorded at 20.41, 20.42 and 20.55. A soprano pipistrelle bat was recorded at 21.11 at the rear of the building. Overall, the bat activity was considered low. No other bats were recorded or observed during the survey.

# 4 Evaluation

## 4.1 Bats

All species of British bat are afforded full protection under Schedule 5, Section 9 of the Wildlife and Countryside Act 1981 (as amended), and under Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended). Under these acts, it is an offence to deliberately or recklessly disturb, capture, injure or kill bats; impair their ability to survive, breed, reproduce, hibernate or migrate; affect significantly the local distribution or abundance of the species to which they belong; or damage or destroy a breeding site or resting place of that species.

The survey results indicate that the building to be demolished is not being utilised by roosting bats. Further, bat activity around the building appears to be limited.

## 4.2 Nesting Birds

All wild birds, their nests and eggs are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended), this makes it an offence to intentionally kill, injure or take any wild bird; take, damage or destroy the nest of any wild bird while it is in use or being built; take, damage or destroy the egg of any wild bird; or to have in one's possession, or control, any wild bird (dead or alive) or egg or any part of a wild bird or egg.

No other nesting birds or evidence thereof were found during the inspection of the building or during the bat emergence survey undertaken. However, the vegetation to the rear of the building is considered likely to support nesting birds.

# 5 Impact Assessment

## 5.1 Bats

The building to be demolished does not appear to support roosting bats, although some bat foraging and commuting activity was noted to the rear of the buildings. Should any new artificial lighting be allowed to spill onto this area, its utility for the bats currently using it may be adversely affected. However, subject to no new artificial lighting being allowed to spill onto these habitats, no adverse impacts upon roosting bats or nesting birds are anticipated because of the proposed works.

## 5.2 Nesting Birds

The building to be modified does not appear to support nesting wild birds. However, it is likely that the vegetated area to the rear of the building supports nesting birds during the nesting season. Should the works be undertaken during this period, nesting birds or their nests may be disturbed or harmed.

# 6 Required Actions

## 6.1 Bats

Some bat foraging and commuting activity was noted to the vegetated rear of the building. To avoid detrimental impact on bats using these habitats, care must be taken to ensure that no new artificial lighting associated with the proposed development is allowed to spill onto these habitats.

No other specific mitigation measures for roosting bats are recommended, and no further surveys are recommended. However, if works are delayed into the active season for bats (May to September, inclusive) 2026, then further bat surveys should be carried out prior to their commencement. In the unlikely event that a bat is found during the works, the procedure detailed in Appendix 1 should be followed.

## 6.2 Nesting Birds

To mitigate the risk of disturbance of or harm to nesting birds, the works will be undertaken outside of the peak nesting period (March – August, inclusive). Alternatively, if this is not possible, then a suitably qualified ecologist will be engaged to undertake a nesting bird check of the vegetation immediately prior to the commencement of works, to ensure that no nests are present.

In the unlikely event that a nesting bird is found during the works, the procedure detailed in Appendix 1 should be followed.

# 7 Biodiversity Enhancement Provisions

To comply with Section 6 of the Environment (Wales) Act 2016, local planning authorities are required to look for biodiversity gain within the planning system. Accordingly, as biodiversity enhancement provisions, two Vivara Pro Build-in WoodStone Bat Boxes will be erected upon the south-facing elevation of the proposed building and two WoodStone Estella House Sparrow Nest Boxes will be erected upon the north elevation of the new building. In addition, 5 no. native species of fruit trees (bird cherry, rowan and crab apple) are to be planted in the garden area of the new dwelling.

# Appendix 1: Bats and Nesting Birds

**Procedure to follow if bats or nesting birds are discovered during works**

- In the highly unlikely event that a bat is discovered during the works, then contractors must stop work immediately and telephone Paul Roberts on 07545 681586.

- P J Ecological Solutions will either provide an appropriately licensed bat worker to the site or provide a member of staff who will liaise directly with Natural Resources Wales. Actions will then be taken following advice given. This may include removal of bats, but only where direct written or verbal permission is gained from Natural Resources Wales. Bats are a protected species and under no circumstances should contractors attempt to handle a bat.

- If a bat is found under roofing material or within any other niche to the building fabric, and does not voluntarily fly out, then the aperture should be carefully covered over by the last object removed (so long as there is no risk of crushing) to protect the bat from the elements, leaving a small gap for the bat to escape voluntarily. If it should be necessary to improvise a replacement covering, this should be free from grease or other contaminants and should not be a fibreglass-based material. If a bat is found outside of the buildings, it should be covered with a light material (cloth) and the appropriately licensed bat worker awaited to carry out the rescue.

- Only when Natural Resources Wales is satisfied that the risk to bats is ceased will works recommence. Should it emerge that the works being undertaken are of more risk to bats than was originally thought, then works will be stopped until they can be supervised by an appropriately licensed bat worker.

- If a nesting bird/active nest is discovered during the works, all works within 5m of the nest must cease and a 5m exclusion zone should be established. This exclusion zone must be respected until it has been determined that all of the chicks have fledged.

# Appendix 2: Green Infrastructure Statement

The existing habitats within or immediate to the site are restricted to the building and the surrounding hardstanding and garden area. The survey results indicated that the building does not support roosting bats; however, the vegetation to the rear of the building is likely to support nesting birds during the season. As a result, to avoid harm to nesting birds, the works will be undertaken in accordance with suitable reasonable avoidance measures. As such, no green infrastructure is expected to be lost because of the proposed development.

Additional green infrastructure is to be provided in the form of a two Vivara Pro Build-in WoodStone Bat Boxes will be erected upon the south-facing elevation of the proposed building and two WoodStone Estella House Sparrow Nest Boxes will be erected upon the north elevation of the new building. In addition, 5 no. native species of fruit trees (bird cherry, rowan and crab apple) are to be planted in the garden area of the new dwelling.

As no green infrastructure is expected to be lost because of the proposed development, subject to the delivery of the above provisions, the development is expected to result in a clear net gain in local green infrastructure.

*The 'stepwise approach' should be adopted throughout the design stage of all new developments in Wales. This means that the loss of existing green infrastructure should be avoided whenever possible, and when it is not possible to avoid the loss of or damage to the existing green infrastructure entirely, the extent of the loss or damage should be minimised to the greatest extent possible. When a proposed development poses a risk of harm to green infrastructure, protected habitats or habitats of principal importance, or protected species or species of principle importance, suitable mitigation should be incorporated into the proposed scheme of works to safeguard that green infrastructure/those habitats and species to the greatest extent possible. Finally, if the loss of green infrastructure cannot be avoided, minimised or mitigated for, suitable on-site compensation should be incorporated into the design of the development.*