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# Preliminary Ecological Appraisal & Roost Assessment

**Survey site:**
Bryn Haul, 4 Hill Street, Newbridge, Wrexham LL14 3JQ

**Client:**
Jason Williams

**Survey date:**
02/10/2026

**Project:**
This report is prepared to inform a planning application with Wrexham County Borough Council. This proposal is described as the *erection of a two-storey extension to a residential dwelling.*

*On the assumption that site conditions and habitats remain unchanged, the results of this assessment will remain valid for 18 months from the date of this survey i.e. until April 2028, in accordance with CIEEM guidance in the lifespan of Ecological Reports and Surveys. This survey and report should be updated if a planning application has not been submitted within this timeframe.*

# EXECUTIVE SUMMARY

The following is work you will need to commission to obtain planning permission and to comply with legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in the proceeding sections of this report.

**Table 1:** Summary of key findings arising from this survey.

| Key Findings |
| --- |
| • The habitats on site are of no specific conservation value but have value at the local level. These are to be partially destroyed. Loss or damage will contribute to net losses of biodiversity locally. There are no specific concerns relating to Protected or otherwise Important Species or Assemblages of a scale warranting further investigation.<br><br>• **Green Infrastructure Assessment -** Planning Policy Wales (2024) requires all developments within Wales to conduct a Green Infrastructure Assessment to deliver Net Biodiversity Benefit and maintain biodiversity during development. Therefore, the planning application must be accompanied by a Green Infrastructure Statement to detail how the site is maintaining biodiversity and include recommendations to further enhance the site biodiversity.<br><br>• A low impact lighting strategy will be adopted for the site during and post-development, which will be designed to incorporate the measures laid out in the latest (2023) bat lighting guide Guidance Note 8 Bats and Artificial Lighting[1].<br><br>• Various precautionary working methods have been recommended which have been fully detailed within the fauna section of this report. |

# 1. INTRODUCTION

The aim of the PEA was to obtain data on existing ecological conditions, and to conduct a preliminary assessment of the likely significance of ecological impacts on the proposed development. The aim of the PRA was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how bats could use the site for roosting, foraging or commuting.

No previous ecology reports have been produced for this site by Arbtech Consulting Ltd or, to the author's knowledge, by any other consultancy.

## Methodology

PEA survey methodology and legislation can be found in the Arbtech Supplement: PEA Methodology and Legislation - 2025.
PRA survey methodology and legislation can be found in the Arbtech Supplement: PRA Methodology and Legislation - 2025.

## Survey Details

The site survey was undertaken on 02/10/2026 by Kayleigh Davies BSc (Hons), MSc, Consultant Ecologist, accredited agent under Natural Resources Wales Bat License (S094455/2) assisted by Jamie Keith, Graduate Ecologist.

**Table 2:** The weather conditions during the survey.

| Temperature (°C) | Humidity (%) | Cloud Cover (%) | Wind (km/h) | Rain |
|---|---|---|---|---|
| 15.4 | 84.0 | 100 | 11.2 | None |

## Survey Limitations

It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site. This assessment provides a preliminary view of the likelihood of protected species being present. This is based on suitability of the habitats on the site and in the wider landscape, the ecology and biology of species as currently understood.

A biological records data search has not been undertaken. However, given the location of the site, the nature of the habitats present and the assessed suitability of the site for protected or notable species, it is not anticipated that the purchase of biological records data will add any significant weight or alter the conclusions and recommendations outlined in this report.

# 2. SITE LOCATION AND LANDSCAPE CONTEXT

## 2.1 Summary of Survey Findings

### Site Location & Context

The site is centred at National Grid reference SJ 28586 41624 and has an area of approximately 0.10ha.

The site comprises a single residential dwelling with associated bare-ground parking area, together with mixed shrubbery and scattered trees across the western and northern site boundaries. Aerial imagery shows the local landscape to be suburban/rural in context with the village of Cefn Mawr and associated residential dwellings to the north-west. To the south the landscape transitions into agricultural land with further habitats being separated by the A5 major road. Water courses are present nearby with the River Dee being approximately ~0.12km to the east. Such features likely enhance the area for a variety of species including bats, amphibians and reptiles.

### Priority Habitats

There are eight priority habitats within 2km of the site. These comprise restored ancient woodland site, traditional orchards, plantation on ancient woodland site, ancient semi natural woodland, ancient woodland site of unknown category, lowland fens and reedbeds, parkland and lowland calcareous grassland. The closest priority habitat comprises restored ancient woodland site, located 5m SE from the site.

The site is well-connected to nearby habitats such as priority woodland via scrub lines which extend off site to woodland parcels and water courses.

### Designated Sites

**Statutory Designations within 2km**

There are three statutory designations within 2km of the site, as detailed below:

**Table 3:** The statutory designated sites within 2km of the site boundary.

| Designation | Distance from Site | Reason for designation |
|---|---|---|

| | | |
|---|---|---|
| Afon Dyfrdwy (River Dee) Site of Special Scientific Interest (SSSI) | 115m N | *Afon Dyfrdwy (River Dee) is of special interest for its fluvial geomorphology, Carboniferous geology, range of river habitat types, saltmarsh transition habitats, populations of floating water plantain Luronium natans, slender hare's-ear Bupleurum tenuissimum, sea barley Hordeum marinum, hard-grass Parapholis strigosa, otter Lutra lutra, salmon Salmo salar, bullhead Cottus gobio, brook lamprey Lampetra planeri, river lamprey Lampetra fluviatilis, sea lamprey Petromyzon marinus, club-tailed dragonfly Gomphus vulgatissimus and other aquatic invertebrates.* |
| Nant-Y-Belan And Prynela Woods Site of Special Scientific Interest (SSSI) | 1250m E | *The largest and one of the best examples of a woodland type largely restricted to Wales and south-west England but also found in the Midlands and north-east England. In North Wales the majority of examples are in the former county of Clwyd, the remainder being in West Gwynedd. The part of the Dee valley in which these woods lie is generally well wooded, but most of the woodland has been affected by large scale replanting with conifers and non-native hardwoods. Nant-y-Belan and Phrynela Woods thus represent a significant area of largely semi-natural woodland which occupies the northern* |

| | | |
|---|---|---|
| | | *slopes of the Dee valley and extends up tributary valleys.* |
| Afon Dyfrdwy A Llyn Tegid (Wales) Special Area of Conservation (SAC) | 115m W | *Designated for marine wildlife.* |

**Statutory Designations within 10km**

There are four additional national network sites (SAC, SPA, Ramsar) located within 10km, as detailed below:

**Table 4:** The additional national network sites within 10km of the site boundary.

| Designation | Distance from Site |
|---|---|
| River Dee And Bala Lake Special Area of Conservation (SAC) | 3790m E |
| Berwyn And South Clwyd Mountains Special Area of Conservation (SAC) | 3870m W |
| Johnstown Newt Sites Special Area of Conservation (SAC) | 3935m NE |
| Berwyn Special Protection Area (SPA) | 9285m SW |

**SSSI Risk Zone**

The site does fall within the impact risk zone for Afon Dyfrdwy (River Dee) SSSI however, the proposed development type is not listed as possible high risk with regard to this designation.

**Non-Designated Sites**

The presence of non-statutory designated sites within 2km of the site cannot be established without data from the local records centre. Whilst some habitats in the wider landscape may host designations, the immediate environs of the site do not host habitats likely to be of designable quality.

## 2.2 Foreseen Impacts

No direct impacts to any designated sites will occur as a result of the proposed development, due to the small scale and low overall impact of the development from such sites (where known), alongside additional factors such as distance in combination with connectivity disrupting barriers.

## 2.3 Recommendations

Best practice measures to minimise the possibility of pollution, damage to adjacent habitats must be implemented during construction. A Construction Environmental Management Plan (CEMP) may be requested by the LPA via condition. This should include the following measures:

- Retained trees adjacent to the site will be protected in line with the measures outlined in the British Standard Trees in Relation to Design, Demolition and Construction to Construction — Recommendations' (BS 5837) (2012).
- Appropriate buffering between the development zone and retained habitats (e.g. 15m for ancient woodland)
- Use of Heras or other appropriate fencing to prevent encroachment by contractors onto adjacent habitats.

# 3. ONSITE HABITATS

*This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.*

## 3.1 Summary of Survey Findings

(H) Heathland and shrub - Mixed scrub (h3h) with Scattered Trees (32)
There are parcels of woodland and scrub to the north-west elevation of building B1 extending back to the site boundary.

Species present within this habitat include elm leaf blackberry *(Rubus ulmifolious)*, common ivy *(Hedera helix)*, box-leaved honeysuckle *(Lonicera pileata)*, common hawthorn *(Crataegus monogyna)*, sycamore (sapling) *(Acer pseudoplatanus)*, sycamore *(Acer pseudoplatanus)* and ash *(Fraxinus excelsior)*.

Scattered Trees (32)
Three scattered trees were recorded across the site, comprising one group and one individual. The group consisted of two medium-sized trees, an ash *(Fraxinus excelsior)* and a sycamore *(Acer pseudoplatanus)*, both over 50% mature. The individual tree, T1, had its maturity unassessed. Overall, the species present are a mix of native and non-native to the UK.

Artificial unvegetated unsealed surface (U1c) – bare ground (510)

There is a section of bare ground to the south of B1. This area of bare ground is utilised for parking, and was the location of the previous extension which was removed by the previous owner of the site. This area has ivy present within small section but is largely unvegetated.

Building (u1b5)
There is one building on site; a residential dwelling.

## 3.2 Foreseen Impacts

No direct impacts to any habitats on site will occur as a result of the proposed development, as the proposed extension and repair works are confined to existing bare-ground areas of the site.

## 3.3 Recommendations

Best practice measures to minimise the possibility of pollution must be implemented during construction. This should include the following measures:

- Remove only the minimum of habitat required to facilitate the development
- Use of Heras or other appropriate fencing to prevent encroachment by contractors onto retained habitats.
- Protect retained turf and soil resource from destruction and compaction using plastic matting and wooden boarding. Do not store skips and other heavy materials on retained turf.
- Grasscrete, cell web or any other porous surface treatment facilitating recovery of vegetation is preferred to hard standing.

No habitat is anticipated to be lost. Any scrub that will be trampled or cleared to facilitate the works will be allowed to return to its original condition.

**Green Infrastructure Assessment**

Planning Policy Wales (2024) requires all developments within Wales to conduct a Green Infrastructure Assessment to deliver Net Biodiversity Benefit and maintain biodiversity during development. Therefore, the planning application must be accompanied by a Green Infrastructure Statement to detail how the site is maintaining biodiversity and include recommendations to further enhance the site biodiversity.

Some examples to ensure net biodiversity benefit include:

- The planting of native shrubs, hedgerows, trees or scrub
- Wildflower areas (using native wildflower mixes)
- Fauna enhancements, such as insect houses, bee bricks, or refugia piles

# 4. INVASIVE SPECIES

*This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.*

## 4.1 Summary of Survey Findings

Cotoneaster species (Cotoneaster sp.) was identified on the site which is listed as an invasive, non-native species under Schedule 9 of the Wildlife and Countryside Act 1981

## 4.2 Foreseen Impacts

Construction could result in the spread of wall cotoneaster.

## 4.3 Recommendations

Any plants present on Schedule 9 of the Wildlife and Countryside Act 1981 are prohibited from release into the wild due to their capacity to cause ecological, environmental or socio-economic harm. Where Schedule 9 species are grown in private gardens, larger scale gardens, estates and amenity areas reasonable measures will be taken to confine them to the cultivated area so as to prevent their spreading to the wider environment and beyond the landowner's control. As such, not preventing the spread of cotoneaster currently present on site, into the wild (i.e. surrounding areas), this could constitute an offence. As such it is recommended that cotoneaster is dug up, including roots, and disposed of in line with appropriate controlled waste measures, or controlled during construction works to prevent the spread off-site.

# 5. FAUNA: BATS

*This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.*

## 5.1 Summary of Survey Findings

**EPSL data and local records**

A search of the magic.gov.uk database for granted European Protected Species Licence (EPSL) applications within a 2km radius of the site has been completed. Displaced bats from licensed sites <2km away from the survey site will find alternative habitat either within the mitigation measures implemented as part of the licence or will relocate to other known roosts sites in proximity to the licensed site. No EPSLs are present within a 2km radius of the site.

The site is not within the zone of influence of a bat-designated SAC.

**Foraging and commuting habitat**

Habitats recorded on site are assessed to provide foraging and commuting opportunities for bats in the form of mixed scrub and scattered trees. These habitats are likely to provide micro-climatic conditions that support invertebrates that will in turn provide foraging opportunities for local bat populations. Furthermore, the site is surrounded by further tree lines and woodland which connect the site to further high value foraging habitat for bats.

**Roosting habitat**

Buildings to be impacted by the proposed development were assessed for their suitability to support roosting bats below. There is a total of one building on site; residential dwelling (B1). There was no evidence of roosting bats identified, including droppings, oil/fur staining or other field signs. The building is assessed as having negligible habitat for roosting bats.

The onsite trees were not assessed at the time of survey due to the inaccessibility of the trees with the surrounding dense scrub.

## Buildings

**B1 : Residential dwelling**

The building is a residential dwelling of stone-built construction with mortar-pointed walls and a slate-tiled roof. External walls are generally well-sealed, with no obvious cracks or crevices offering roosting potential, however, the southern gable end has small cosmetic areas of damage due to the original extension being demolished (under a previous planning application). Windows are UPVC and in good condition, presenting no gaps or voids. Timber bargeboards at the eaves are in relatively good condition, with some gaps present; however, these do not lead directly into the internal roof structure and, due to their exposed nature, provide no viable roosting opportunity for crevice-dwelling bats. There is no internal void present. Overall, the building presents negligible habitat value for roosting bats. The building has been subject to recent repair works, including roof works to prevent further water ingress into the building. Images were provided prior to this repair works which shows a large ingress of water through the damaged roof, suggesting that the roof itself and the internal of the building was subject to high levels of water damage.



*Building B1 - Front Elevation*

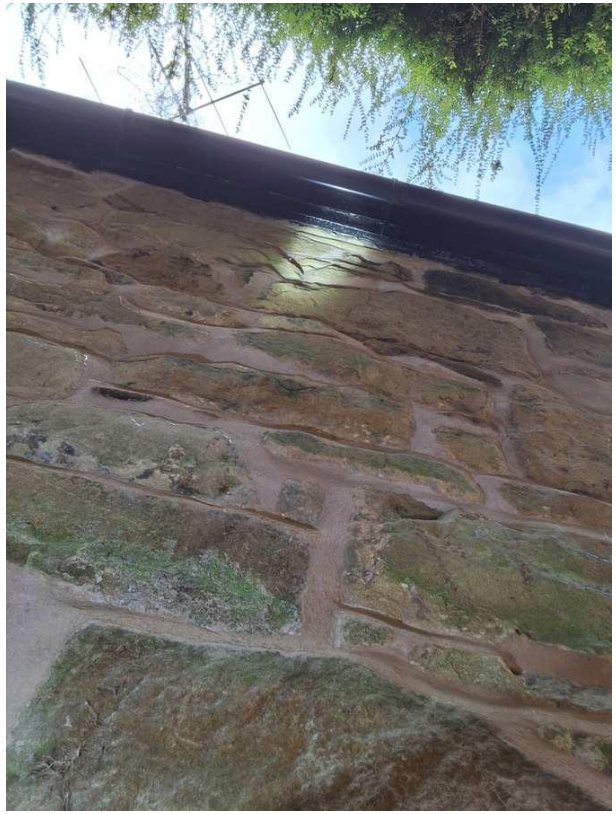


*Building B1 - Gable End*

**Table 5a:** The roosting features associated with building B1.

| Feature | Materials/Details | Condition / description / suitability | Photograph |
|---|---|---|---|
| Walls | Stone | **Condition/description**<br>The external walls were generally well-sealed with limestone mortar<br><br>**Suitability/access/evidence of bats**<br>The walls on the western and eastern elevation are generally well-sealed and present no obvious potential roosting features for bats. The southern elevation has shallow crevuces present due to the previous demolition of the extension, however, these are cosmetic damage and do not lead into further crevices. The internal of the building contain newly | N/A |

| | | | |
|---|---|---|---|
| | | formed crevices resulting from current repair works; these features are considered unlikely to be in use by bats due to their recent creation. Furthermore, these crevices will be sealed off immediately as the works finish to secure the building from water damage. | |
| Roof | Slate | **Condition/description**<br>The roof is observed to be new and well-sealed. There is a missing ridge tile to the southern gable end, as a result of incomplete roof works, which is due to be finished immediately after the survey completion.<br><br>**Suitability/access/evidence of bats**<br>No roosting features was observed on the roof of B1. Furthermore, no field signs indicative of use by roosting bats such as droppings, oil/fur staining or feedings remains were found | <br>*B1 roof - northern elevation* |
| Eaves | Overhanging | **Condition/description**<br>The eaves comprise overhanging slate tiles creating a run-off into uPVC guttering.<br><br>**Suitability/access/evidence of bats**<br>No features suitable for roosting bats are present, and no field signs of bat use were recorded. | N/A |

| | | | |
|---|---|---|---|
| Barge boards | Timber | **Condition/description**<br>The timber bargeboards are in relatively good condition, with some gaps present.<br><br>**Suitability/access/evidence of bats**<br>The aforementioned gaps are considered unsuitable for crevice-dwelling bats, as they do not lead further into the roof, and the gap created is considered too wide to offer habitat for creice dwelling bats. . These gaps are also situated immediately opposite dense scrub, which would impede the flight path of bats. Owing to their exposed position and the absence of viable flight-line opportunities, these features are considered to offer negligible potential for roosting bats. | <br>*B1 barge boards / fascia boards* |
| Windows | uPVC | **Condition/description**<br>The windows are well-sealed.<br><br>**Suitability/access/evidence of bats**<br>There are no potential roosting features present, likewise there is a complete absence of field signs indicative of roosting bats. | N/A |

| | | | |
|---|---|---|---|
| Internal | Vaulted ceiling | There is no loft present within the building. The first floor of the property has vaulted ceilings, with exposed wooden beams and plastered/ wooden ceilings.<br><br>The internal of the building is considered unsuitable for void dwelling bats due to high levels of sunlight within the space and no suitable roosting features observed. There were gaps present between the stonework, however, these have been recently created due to the current repair works to the walls. Furthermore, no observed point of ingress to access these crevices for bats was seen during the survey.<br><br>The original internal (as shown via photographs provided by the client) shows the roof to have significant damage, allowing high levels of water into the roof and first floor of the building. This likely made the roof space and internal too wet for bats and further allowed high fluctuations of external elements which would be suboptimal for bats. | <br>*Example of the internal of B1.*<br><br><br>*Image of the water damage prior to repair works.* |

## 5.2 Foreseen Impacts

**Roosting habitat [Buildings]**
Bats are very unlikely to be roosting within B1 due to recent disturbance on the property due to recent repair works and as such, there are not anticipated to be any impacts on bats in this location as a result of the proposed development.

**Roosting habitat [Trees]**
There are scattered trees on site, however these are not anticipated to be impacted by the proposed works and therefore no impacts foreseen.

**Foraging and commuting habitat**
The proposed development will not result in the removal of any habitats which could be used by foraging or commuting bats. However, the proposed development will include the use of lighting which could spill on to bat roosting, foraging or commuting habitat and deter bats from using these areas.

**Artificial lighting**
The proposed development may lead to an increase in the amount of current lighting of surrounding habitats or the retained building without mitigation. This may disturb commuting bats.

## 5.3 Recommendations

**Roosting habitat [Buildings]**
In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.

**Roosting habitat [Trees]**
None.

**Foraging and commuting habitat**
No further surveys are required.

**Artificial lighting**
A low impact lighting strategy will be adopted for the site during post-development which outlines the areas of the site that will be retained as dark corridors. Parameters can be found on the Bat Conservation Trust website: https://www.bats.org.uk/news/2023/08/bats-and-artificial-lighting-at-night-ilp-guidance-note-update-released

**Suggested biodiversity enhancements**

The installation of two build in bat boxes at the site will provide additional roosting habitat for bats.

The bat boxes will be incorporated into the fabric of the new extension. They will be suitable for pipistrelles. Suitable bat boxes include Habibat Bat Box, Ibstock Enclosed Bat Box or similar alternative brand.

Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light.

# 6. FAUNA: BIRDS

*This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.*

## 6.1 Summary of Survey Findings

**Buildings**

No evidence of nesting birds was identified on or within B1. B1 is deemed to provide negligible habitat value for nesting birds due to a lack of suitable nesting sites or access points.

**Trees and vegetation**

No bird nests were identified within the vegetation on-site, however scattered trees offers nesting opportunities and nest-building resources for birds, and mixed scrub offers foraging opportunities.

Due to the small size of the site and the extent and type of the habitats recorded, the site is not considered suitable to support a significant assemblage of protected and/or notable birds.

**Barn Owls**

The site does not appear to provide any suitable nesting sites for barn owls.

## 6.2 Foreseen Impacts

**Buildings**

No impacts are anticipated on nesting birds as a result of the proposed development.

**Trees and vegetation**
None foreseen.

**Barn Owls**
None foreseen.

## 6.3 Recommendations

**Buildings**
None.

**Trees and vegetation**
No additional surveys required.

**Barn Owls**
No further barn owl surveys required.

**Suggested biodiversity enhancements**
The installation of a minimum of two bird boxes on retained buildings will provide additional nesting habitat for birds e.g. Schwegler No 17 Swift Nest Box (buildings), Schwegler 1SP Sparrow Terrace (buildings), Schwegler 1B Nest Boxes (trees), Schwegler 2H Robin Boxes (trees), Woodstone Nest Box (buildings or trees) or a similar alternative brand.

Tree boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. Small-hole boxes are best placed approximately 1-3m above ground on an area of the tree trunk where foliage will not obscure the entrance hole.

Swift and sparrow boxes should be positioned at the eaves of a building and can be incorporated into the fabric of the building during construction.

# 7. FAUNA: REPTILES

*This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.*

## 7.1 Summary of Survey Findings

**EPSL data and local records**

A review of the MAGIC database returned no granted EPSL records for protected reptiles within 2km of the site.

**Habitat suitability**

Habitats recorded on site are assessed to provide foraging, commuting, basking and refuge opportunities for reptiles. The scrub provide elevated value for reptiles as these habitats provide a suitable structure for refuge, whilst also providing foraging and commuting opportunities. However, it is important to note that the area of development consists of bare ground, of limited value to reptiles. These habitats are suboptimal due to an absence of notable habitat structure and diversity, which significantly limits refuge, foraging, and commuting opportunities, albeit they do provide some basking opportunities when located adjacent to potential refugia. The site has good connectivity to further suitable reptile habitat in the wider landscape via woodland and riparian vegetation associated with the Dee River. The presence of reptiles on site cannot be discounted, albeit likely limited to low numbers within peripheral scrub. the area for the proposed extension consists of bare ground, which is of suboptimal habitat for reptiles, due to a lack of shelter habitat and foraging habitat. Therefore, if present, only likely to spend short periods of time commuting through this space.

**Wider landscape**

The adjacent sections of the River Dee and woodland are of elevated ecological value within the wider landscape and may represent important resources for local reptile populations. These adjacent habitats provide optimal foraging, commuting, and refuge opportunities for reptiles and are well-connected to further suitable habitat in the wider landscape. The presence of reptiles utilising these adjacent habitats cannot be discounted.

## 7.2 Foreseen Impacts

Although the scrub onsite offers value for reptiles, the extension will impact bare ground, which is off low value for reptiles. Although the extension will not impact the scrub, the renovation of the property will likely involve soft landscaping of the garden area and therefore a small area of suitable habitat is being removed as part of the development, there is a low risk that a low number of reptiles could be present in the vicinity of the works. These could be injured or killed without mitigation.

## 7.3 Recommendations

A precautionary working method will be implemented for widespread reptiles during construction, including the following measures:

- Vegetation will be maintained in the area of the extension to at least a short sward (5cm) to discourage reptiles.
- A staged approach will be adopted for vegetation clearance within the garden, whereby the vegetation will be strimmed to 15cm and left overnight to allow any reptiles to disperse. The vegetation can then be cleared to ground level and must be maintained at this level for the duration of construction to deter reptiles from the working area.
- Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.
- Best practice pollution prevention measures will be implemented to minimise impacts to nearby habitats.
- Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.
- If any reptiles are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance.
- In the unlikely event that a reptile is identified, works must cease and advise must be sought from a suitably qualified ecologist.

# 8. FAUNA: AMPHIBIANS

*This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.*

## 8.1 Summary of Survey Findings

**EPSL and survey data**

A review of the MAGIC database returned no granted EPSL records for amphibians within 2km of the site.

The site is located in an area where no District Level Licensing scheme for GCN is available.

**Aquatic habitat suitability (including ponds within 500m)**

Great crested newts (GCN) exist in metapopulations and are known to utilise ponds and their connecting terrestrial habitat during their life cycle; great crested newts are typically found within terrestrial habitats up to 500m from breeding ponds (Langton et al. 2001).

No ponds are present on site or have been identified within 500m of the site.

**Terrestrial habitat suitability**

The area of development to the south of the building onsite provides limited suitable terrestrial habitat for amphibians given the lack of optimal habitat (i.e. scrub, rank grassland). The areas of bare ground offer sub-optimal habitat for terrestrial amphibians. However, the scrub within the garden section to the rear of the property offers habitat for amphibians. Given the suburban nature of the surrounding landscape (i.e. dominated by roads and gardens which are sub-optimal for amphibians) it is unlikely that amphibians will migrate on to site. Further, watercourses and ponds are separated from the site by the River Dee which acts as a hydrological barrier, reducing the likelihood of great crested newts being present on site, however, common amphibians cannot be ruled out from the site, albeit within the scrub areas..

## 8.2 Foreseen Impacts

Given the lack of suitably connected breeding ponds within 500m of the site, the presence of GCN on-site is considered unlikely and therefore impacts to amphibians as a result of the proposed development are deemed to be acceptably low.

## 8.3 Recommendations

Owing to the nature of the proposed development and the low potential for impacts to great crested newts, further surveys are considered to be disproportionate. A precautionary working method will be implemented for common amphibians during construction, including the following measures:

- A staged approach will be adopted for the soft landscaping within the garden area, whereby the vegetation will be strimmed to 15cm and left overnight to allow any amphibians to disperse. The vegetation can then be cleared to ground level and must be maintained at this level for the duration of construction to deter amphibians from the working area.
- Any rubble piles will be dismantled by hand and debris and brash will be stored on pallets or removed from the site to prevent amphibians from utilising these areas.
- Best practice pollution prevention measures will be implemented to minimise impacts to nearby aquatic habitats that amphibians could use.
- Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.
- If any common amphibians are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance.
- In the unlikely event that a great crested newt is identified, works must cease and advise must be sought from a suitably qualified ecologist.

# 9. FAUNA: RIPARIAN ANIMALS

*This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.*

## 9.1 Summary of Survey Findings

A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed for riparian animals (otters and water voles). No EPSLs relating to riparian animals are present within a 2km radius of the site.

**Habitat suitability**

While the presence of riparian mammals cannot be completely discounted due to the proximity of the River Dee (approximately 0.125 km to the east), the likelihood of occurrence on-site is considered significantly reduced owing to substantial anthropogenic barriers, including gabion walls, hardstanding associated with roads, and the surrounding residential development, which collectively degrade habitat suitability and restrict access for species such as otters and water voles.

Should any evidence of riparian mammals (otters, water voles, or their signs) be identified on-site, all ground-disturbing works in the vicinity must cease immediately, and a qualified ecologist contacted without delay to assess the findings, advise on further survey or licensing requirements, and confirm in writing when works may safely resume.

## 9.2 Foreseen Impacts

No impacts are anticipated on riparian animals as a result of the proposed development.

## 9.3 Recommendations

No further surveys for riparian animals required.

# 10. FAUNA: HAZEL DORMOUSE

*This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.*

## 10.1 Summary of Survey Findings

**EPSL data and local records**

A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed for hazel dormouse. No EPSLs relating to hazel dormouse are present within a 2km radius of the site.

**Habitat suitability**

Dormice typically utilise a three-dimensional habitat structure as to commute between feeding and breeding sites whilst avoiding predation. As such habitats on site are considered unsuitable for hazel dormice and therefore the likelihood of this species being present on site is considered acceptably low.

## 10.2 Foreseen Impacts

No impacts are anticipated on hazel dormice as a result of the proposed development.

## 10.3 Recommendations

No further hazel dormouse surveys required.

# 11. FAUNA: BADGERS

*This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.*

## 11.1 Summary of Survey Findings

No badger setts, latrines, footprints, hairs were noted on site or within a 30m radius of the site. The area of the extension is considered unsuitable for use by badgers due to the lack of vegetated areas for foraging. However, the scrub section to the rear of the building was not accessible due to the dense nature of the scrub. However, no mammal paths were noted going into the scrub within the surveyed sections of the scrub. No evidence of badgers were noted on site.

## 11.2 Foreseen Impacts

No works will be undertaken within 30m of a badger sett. For the extension, bare ground will be impacted for the development which is considered low value for badgers and therefore no impacts to badgers anticipated. However, the development will likely involve associated soft landscaping to the rear section of scrub. The loss of such habitats is likely to be inconsequential to local badger populations owing to their low value and the presence of more extensive habitat locally. However, construction and vegetation clearance activities could result in the death or injury of badgers, if present.

## 11.3 Recommendations

Owing to the nature of the proposed development and the low potential for impacts to badgers, further badger surveys are considered to be disproportionate. A precautionary working method will be implemented during construction, including the following measures:

- Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.
- The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which badgers could use.
- Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.

In the unlikely event that a badger sett is identified, works must cease and advise must be sought from a suitably qualified ecologist.

**Suggested biodiversity enhancements**

Planting fruit bearing trees and species-rich grassland to increase foraging opportunities for badgers.

# 12. FAUNA: INVERTEBRATES

*This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.*

## 12.1 Summary of Survey Findings

The habitats present on-site, including scrubland and sun-exposed bramble, likely provide common invertebrates with opportunities to forage and shelter. The wider site context also includes scrubland, with the River Dee located approximately 0.125 km to the east. The proposed development will be limited to the existing bare ground, with the scrubland and other vegetated habitats retained undisturbed. Sufficient habitat will therefore remain on site and in the surrounding area to maintain healthy and diverse invertebrate populations, and no long-term degradation or loss of species (extinction debt) is expected. Furthermore, the developer plans to provide wildflower planting to further support native populations.

## 12.2 Foreseen Impacts

None foreseen.

## 12.3 Recommendations

No further surveys.

# 13. FAUNA: OTHER NOTABLE SPECIES

*This section may include further work you will need to commission (if any) to obtain planning permission or comply with legislation for other consent. All clients are expected to read and understand this section, or to contact the lead surveyor for advice.*

## 13.1 Summary of Survey Findings

**Hedgehogs**

The scrubland present on site offer foraging and commuting opportunities for hedgehogs and other small mammals. The structural diversity within the scrub is beneficial for hedgehogs, providing dense cover for shelter alongside more open areas that support a variety of invertebrate species essential to the hedgehog diet. The availability of such shelter and food resources makes the site favourable for hedgehog activity, even for transient periods.

As the site is located within 100 m of woodland area, the site's proximity and connectivity further enhance its value for hedgehogs. The nearby woodland offers extensive habitat resources and serves as an ecological corridor, linking the site to the wider landscape and supporting the movement of local hedgehog populations.

## 13.2 Foreseen Impacts

**Hedgehogs**

The extension works onsite is not anticipated to have any impacts to hedgehogs if present, due to the lack of suitable vegetated habitats present within the development area. However, the associated soft landscaping to the garden area may result in the loss of scrubland. The loss of such habitats is likely to be inconsequential to local hedgehog populations owing to their low value and the presence of more extensive habitat locally. However, construction activities could result in the death or injury of hedgehogs, if present.

## 13.3 Recommendations

**Hedgehogs**

Similar to the badgers, a precautionary working method will be implemented during construction, including the following measures:

- Any excavations will be covered overnight, or a ramp will be installed to enable any trapped animals to escape.
- The use of night-time lighting will be avoided, or sensitive lighting design will be implemented to avoid light spill on to retained habitats which hedgehogs could use.
- Any chemicals or pollutants used or created by the development should be stored and disposed of correctly according to COSHH regulations.

If any hedgehogs are found in the working area these should be allowed to disperse of their own accord or, if at immediate risk, should be moved by hand to a sheltered, vegetated area away from disturbance.

## 13.4 Suggested Biodiversity Enhancements

**Hedgehogs**

The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for hedgehogs:

- Planting species-rich grassland to increase foraging opportunities.
- Creation of brash piles or installation of hedgehog houses in shady areas.
- Installation of gaps under boundary fencing to enable hedgehogs to move freely through the site.

# APPENDIX 1: SURVEY/HABITAT MAP




*PEA Map*

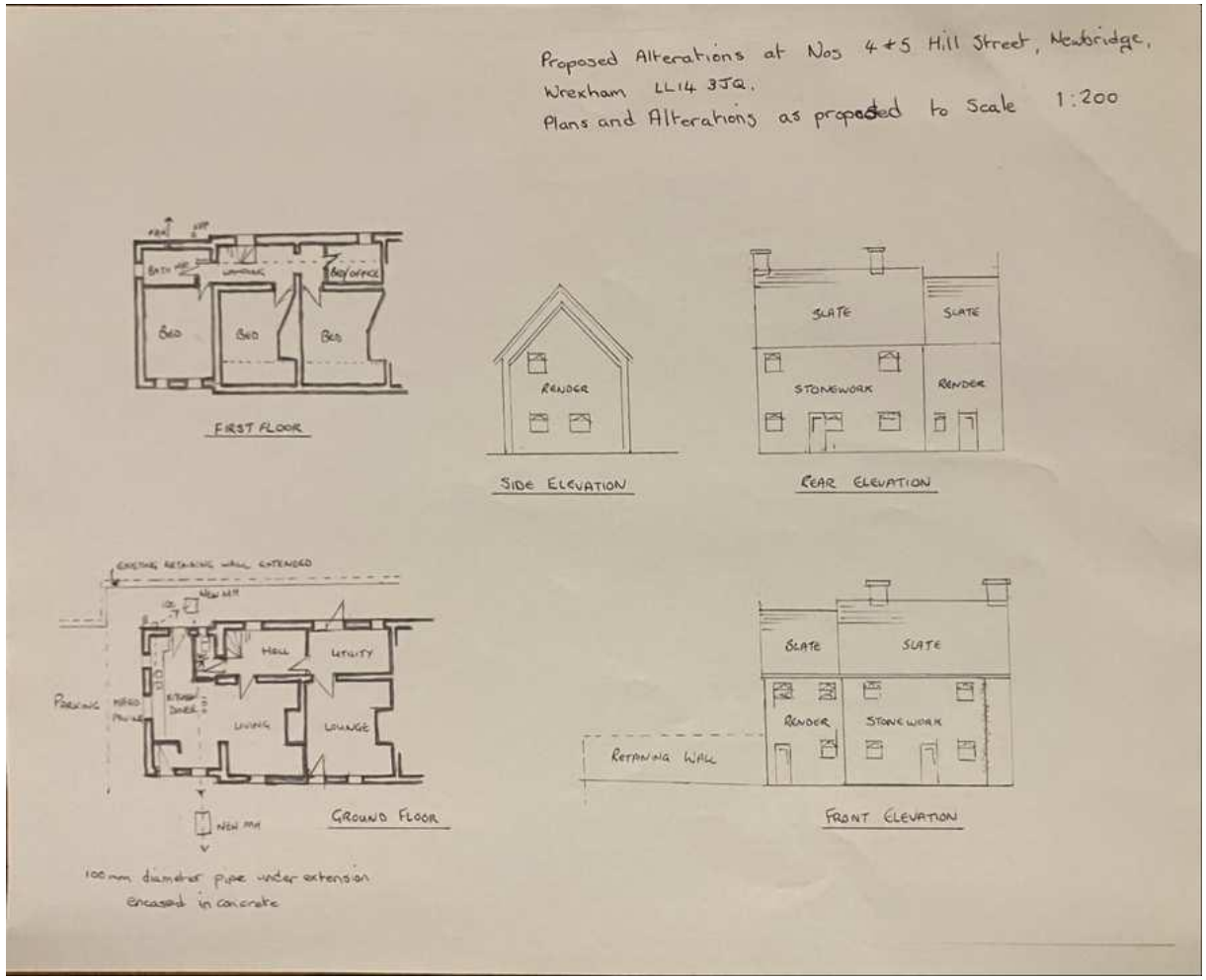



*Approximate Site Boundary Map*

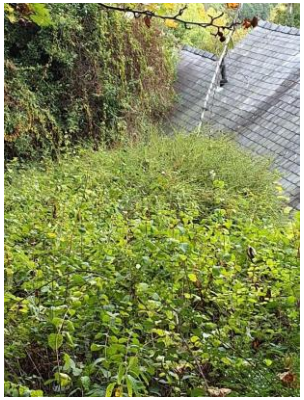
# APPENDIX 2: LOCATION MAP



# APPENDIX 3: PROPOSED PLAN



# APPENDIX 4: HABITAT IMAGES



*Mixed scrub*



*Scattered trees & Mixed Scrub*

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# VERSION CONTROL

| Status | Issue | Name | Date |
|---|---|---|---|
| Draft | 0.1 | Jamie Keith, Graduate Ecologist | 06/10/2026 |
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| Final | 1.0 | Kayleigh Davies, BSc (Hons), MSc, Consultant Ecologist | 08/10/2026 |