

A Preliminary Ecological Appraisal Report (PEAR)
on behalf of

Jason Cox
For

Land Off Elwyn Drive
Twynyrodyn
Merthyr Tydfil
Merthyr Tydfil County Borough Council
CF47 0LT



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Project Overview

Client	Jason Cox
Site / Job	Land Off Elwyn Drive, Twynyrodyn, Merthyr Tydfil, CF47 0LT
Report Type	Preliminary Ecological Appraisal
Report Reference	LT444
Grid Refence	SO 05575 05964

Versioning and Quality Assurance

Status	Date	Author(s)	Reviewed by
Draft	09.09.2026	Nic Aldridge	Sam Haycock
Version 1	14.09.2026	Nic Aldridge	Sam Haycock

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Executive Summary

A Preliminary Ecological Appraisal (PEA) was undertaken for land off Elwyn Drive, Twynyrodyn, Merthyr Tydfil. The assessment comprised a desktop study and a field survey to identify habitats, protected species potential, and statutory designated sites present on or in proximity to the site, in support of a planning application for the demolition of existing buildings and the construction of residential units, alongside associated landscaping works.

The site comprises a commercial yard of approximately 820 m², containing four principal structures (an industrial unit, a garage, and two steel storage containers) alongside areas of disturbed, rubble-strewn ground, tarmac hard-standing, and a boundary of timber fencing and block-built retaining wall. The site is embedded within a dense residential townscape and offers limited intrinsic ecological value, with occasional ruderal and ephemeral vegetation providing the principal botanical interest.

The desktop study (Local Environmental Records Centre: Aderyn, LERC Wales, Reference 0267-401) returned 773 species records within the 1 km search area, with no records on or directly adjacent to the site and the nearest record located 106 m away. Ten bat taxa were recorded, including Lesser Horseshoe Bat (*Rhinolophus hipposideros*), Common Pipistrelle (*Pipistrellus pipistrellus*), Soprano Pipistrelle (*Pipistrellus pygmaeus*), and Greater Horseshoe Bat (*Rhinolophus ferrumequinum*), the nearest record located 291 m from the site. Other notable groups included reptiles and amphibians (including Great Crested Newt (*Triturus cristatus*) and Slow-worm (*Anguis fragilis*)), a substantial assemblage of birds (431 records, including Red Kite (*Milvus milvus*), Barn Owl (*Tyto alba*), and Peregrine (*Falco peregrinus*)), and flowering plants, most numerous Japanese Knotweed (*Reynoutria japonica*). No statutory designated site lies within the site boundary; the nearest, Cwm Glo a Glyndyrys Site of Special Scientific Interest (SSSI), lies approximately 1.1 km away.

The Preliminary Roost Assessment (PRA) took into account the findings of a previous bat activity survey (Little Wing Ecology, 2023), in which no evidence of bat roosting was recorded at any of the surveyed structures. On this basis, the site as a whole was assessed as being of overall low roosting risk, and a minimum of one further survey visit was considered to represent an appropriate level of survey effort, sufficient to account for any potential change of use at the structures occurring since the previous survey. No maternity or hibernation roosts were suspected at the site.

Building A was assessed as offering Low roost potential, reflecting the presence of a rear passageway feature together with a number of minor potential roost features (PRFs); breeding bats were not identified as a concern on the basis of the evidence recorded. Building B was similarly assessed as offering Low roost potential, with breeding bats not identified as a concern. Buildings C and D (steel storage containers) were assessed as offering Negligible roost potential, in accordance with current bat survey good practice guidelines. Photographic evidence supporting the PRA is presented in the Appendix to the full report. Habitat suitability for commuting and foraging bats across the site is assessed as Low, owing to the absence of vegetated linear features and the predominance of hardstanding, buildings, and disturbed ground.

Few material ecological constraints were identified during the survey. The single-visit nature of both the PRA and the habitat assessment represents an inherent limitation of a preliminary appraisal; however, as the survey was undertaken on 15th June 2026, within the optimal season for both bat and botanical assessment, this is not considered to have materially affected the characterisation of habitats or ecological constraints.

Further survey requirements: Given the roost potential associated with the rear passageway feature at Building A, a static bat detector survey is recommended, comprising the deployment of one static detector unit within the covered passageway to the rear of the building for a minimum period of 14 days, in order to establish whether the feature is used by roosting or transiting bats. A dusk emergence survey of Buildings A and B is also recommended prior to any works affecting those structures, to confirm roost status ahead of the demolition phase.

Mitigation and enhancement: Recommended mitigation comprises a sensitive lighting scheme to protect commuting and foraging bats, together with a precautionary fingertip search for amphibians, reptiles, and small mammals prior to site clearance. Proposed enhancement measures include the integration of bat and swift boxes within the

new development, hedgehog access holes and native, wildlife-friendly hedge planting at the site boundary, and the planting of native shrubs and night-scented, bat-friendly species within the landscaping scheme.

This Executive Summary is intended to provide an overview of the assessment of the proposed development site based on information received by Little Wing Ecology (CYF) at the time of production. This Executive Summary should be read in conjunction with the full report.

1.0 Introduction

1.1 Background

This report details a Preliminary Ecological Appraisal (PEA) undertaken for the proposed residential development at land off Elwyn Drive, Twynyrodyn, Merthyr Tydfil. The assessment was commissioned by the owner. The purpose of this report is to inform the client of any ecological constraints and associated planning requirements regarding habitats and protected species, in support of a planning application for the complete demolition of the existing buildings and construction of residential units, alongside associated landscaping works. For the purposes of this document, the plot will be referred to as 'the site'.

1.2 Site Details

The site is located at land off Elwyn Drive, Twynyrodyn, Merthyr Tydfil, and is accessed via Elwyn Drive, the main service road. It has an Ordnance Survey National Grid Reference of SO 05575 05964 at its approximate centre. The total site area is approximately 820 m². The field survey was conducted on 15th June 2026.

The site comprises a commercial yard containing four principal structures alongside associated external storage areas. Building A is a two-storey, detached commercial building of rendered masonry construction, with a curved, corrugated sheet roof of barrel-vaulted profile, uPVC casement windows to the first floor, and ground-floor vehicular and personnel access doors, including a roller-shutter door and timber-boarded doors; access to the first floor is via an external metal staircase, and single-storey, block-built flat-roofed extensions adjoin the main structure to either side. Building B is a small, detached, single-storey garage of blockwork construction with a pitched roof clad in concrete tiles and ridge tiles, set within an area of rough ground. Buildings C and D comprise two steel shipping containers of corrugated steel construction, standing on hardstanding and used for the storage. The surrounding yard is bounded to the rear by a low concrete-block retaining wall surmounted by close-boarded timber fencing, and comprises a mixture of tarmac hardstanding and disturbed, bare, and rubble-strewn ground colonised by ephemeral and ruderal vegetation, including patches of bramble scrub along the boundary margins, together with a mound of disturbed soil and spoil. The yard is used extensively for the storage of stacked timber, scaffold poles, coiled piping, and other construction materials, alongside a waste skip and scattered general refuse, and adjoins residential properties.

1.3 Report Context

This report (LT444) was prepared on 9th September 2026. It should be read in conjunction with the accompanying architectural plans and documents provided by the client.

1.4 Ecological Constraint(s)

No major constraints were encountered during either the Preliminary Ecological Appraisal (PEA) or the Preliminary Roost Assessment (PRA), and all habitats and features on site, including those with potential to support roosting bats, were broadly identified and assessed with confidence, with access available to all areas of the site. However, it should be noted that neither assessment is intended to confirm the presence or absence of all plant species or roosting bats on site; this would typically require further, more detailed survey effort, comprising a botanical assessment across multiple visits between April and September, and emergence/re-entry surveys undertaken during the optimal season between May and October, as different plant species emerge and flower at different times of year, and bat

activity and roost use vary considerably according to season, species and weather conditions. Sward height, management regime, vegetation cover, building complexity and prevailing weather conditions can all, to varying degrees, hinder the identification of specimens and the inspection of potential roosting features during a single visit. As the field survey was undertaken on 15th June 2026, within the optimal window for both habitat and bat roost assessment, the single-visit nature of the assessment is not considered to have materially affected the characterisation of habitats and dominant species present, or the assessment of potential roosting features. Nevertheless, this report provides a comprehensive assessment of habitats, dominant species and potential roosting features at the time of the survey, and highlights areas where further survey effort would be required.

2.0 Methodology

2.1 Desk Study

A desk study was undertaken on 15th June 2026 to gather existing ecological information pertinent to the site. Local environmental records were sourced from the South East Wales Biodiversity Records Centre (SEWBReC). Additionally, personal records held by the author were consulted. Other relevant resources, including Data Map Wales, were also searched. A 1 km search radius was applied for all records. Only species records occurring within the last ten years were considered relevant for detailed analysis, although earlier records were also given consideration. A previous ecological report, *A Habitat and Bat Survey Report* (Little Wing Ecology (CYF), 2023), was provided by the client and has been considered in the preparation of this assessment where relevant.

2.2 Field Survey

A Preliminary Ecological Assessment was undertaken using standard Phase 1 habitat survey techniques as a guiding principle. The site was surveyed by walking a zig-zag pattern, with systematic and methodical notes being recorded on the habitat and site conditions. This was followed by a complete circuit of the site boundaries, where additional notes were made as necessary. Photographs were taken to document the site's boundaries, areas of ecological interest, and features characteristic of the on-site habitats.

During the survey, the potential for protected species was assessed, and any signs or evidence of their use were noted. Features such as piles of rubble, banks, or tree roots were assessed for their potential to be used as refugia or hibernacula for reptiles and hedgehogs. Water bodies were evaluated for their potential to provide opportunities for amphibians and reptiles. Furthermore, the presence of physical signs of other relevant species, such as droppings, footprints, or foraging marks, were recorded where observed. Any flora or fauna protected under the Wildlife and Countryside Act 1981 were also noted.

A Daytime Bat Walkover (DBW) was conducted to identify opportunities for bat roosts and potential roosting features (PRFs). As part of this, the habitats both on-site and immediately beyond the site boundary were assessed to identify potential commuting and foraging corridors. This thorough assessment allowed for the determination of the overall suitability of the location for bats and informed the need for any further surveys.

The field survey was conducted by N. S. Aldridge (NRW Licence – S097003/1), who is also the author of this report.

Table 2.1: Weather Conditions during Field Survey (15.06.2026)

Parameter	Start Conditions	End Conditions
Time	10:00	11:30
Temperature (°C)	24.9	25.4
Cloud Cover (Oktas)	2	2
Precipitation	Nil	Nil
Wind (Beaufort Scale)	F2	F2

3.0 Results

3.1 Desk Study Results

The local biological records search (LERC: Aderyn, LERC Wales, Reference 0267-401) reported 773 species records. No records were documented on or directly adjacent to this site; the nearest record was at 106 m. These are briefly summarised in the bullet list below:

- Terrestrial mammals (excluding bats) accounted for 26 species records (i.e., 3.36% of all records). Records were returned for four taxa at distances between 106 m and 1,416 m, of which 24 records (92.31%) are CAT1 Priority Species and 2 records (7.69%, Grey Squirrel) are CAT4 invasive species. The nearest three records were Hedgehog (*Erinaceus europaeus*) at 106 m, 225 m and 421 m. Species recorded comprised Otter (*Lutra lutra*, 14 records, 676–1,416 m), Hedgehog (9 records, 106–969 m), Grey Squirrel (*Sciurus carolinensis*, 2 records, 715–918 m, CAT4 invasive), and Badger (*Meles meles*, 1 record, at 755 m).
- Chiroptera (bats) accounted for 95 species records (i.e., 12.29% of all records). All bat records are CAT1 Priority Species. Records were returned for ten bat taxa at distances between 291 m and 2,908 m. The nearest three records were Common Pipistrelle (*Pipistrellus pipistrellus*) at 291 m; Pipistrelle Bat species (*Pipistrellus*) at 416 m; and Soprano Pipistrelle (*Pipistrellus pygmaeus*) at 471 m. Species recorded comprised Lesser Horseshoe Bat (*Rhinolophus hipposideros*, 22 records, 645–2,908 m), Common Pipistrelle (21 records, 291–1,467 m), Soprano Pipistrelle (13 records, 471–1,467 m), Bat (*Chiroptera*, 11 records, 481–1,201 m), Greater Horseshoe Bat (*Rhinolophus ferrumequinum*, 10 records, 1,874–2,667 m), Pipistrelle Bat species (7 records, 416–1,223 m), Brown Long-eared Bat (*Plecotus auritus*, 6 records, 512–908 m), Pipistrelle (*Pipistrellus pipistrellus* agg., 2 records, 665–844 m), Noctule (*Nyctalus noctula*, 2 records, 844–927 m), and Long-eared Bat species (*Plecotus*, 1 record, at 574 m).
- Reptiles and amphibians accounted for 22 species records (i.e., 2.85% of all records). All records are CAT1 Priority Species. Records were returned for five taxa at distances between 441 m and 1,471 m. Species recorded comprised Great Crested Newt (*Triturus cristatus*, 9 records, 960–1,471 m), Common Frog (*Rana temporaria*, 7 records, 611–1,201 m), Common Toad (*Bufo bufo*, 3 records, 819–1,047 m), Palmate Newt (*Lissotriton helveticus*, 2 records, 923–1,067 m), and Slow-worm (*Anguis fragilis*, 1 record, at 441 m — the only reptile record; the remaining records in this group relate to amphibians).
- Birds accounted for 431 species records (i.e., 55.76% of all records), 79.35% of which were for CAT1 species. The nearest three records were Swift (*Apus apus*) at 186 m; House Sparrow (*Passer domesticus*) at 323 m; and Grey Wagtail (*Motacilla cinerea*), also at 323 m. CAT1 species (342 records across 50 taxa) were dominated by common garden, farmland and woodland birds, led by Magpie (*Pica pica*, 23 records), House Sparrow (21 records), Herring Gull (*Larus argentatus*, 18 records), Chaffinch (*Fringilla coelebs*, 17 records) and Grey Wagtail (15 records); notable CAT1 raptors included Red Kite (*Milvus milvus*, 9 records, 539–1,720 m), Barn Owl (*Tyto alba*, 8 records, 756–2,987 m), Peregrine (*Falco peregrinus*, 5 records, 471–1,184 m) and Hobby (*Falco subbuteo*, 1 record, at 1,201 m). The 89 non-CAT1 records related chiefly to Song Thrush (*Turdus philomelos*, 16 records), Swallow (*Hirundo rustica*, 13 records), Dipper (*Cinclus cinclus*, 13 records), Long-tailed Tit (*Aegithalos caudatus*, 12 records) and Mallard (*Anas platyrhynchos*, 12 records); the sole non-CAT1 invasive/non-native (CAT4) species was Canada Goose (*Branta canadensis*, 4 records, 864–1,760 m).
- Flowering plants accounted for 93 species records (i.e., 12.03% of all records), including 1 CAT1 record, for Bluebell (*Hyacinthoides non-scripta*) at 481 m. 68 records were returned for CAT4 (invasive) species; the nearest were Japanese Knotweed (*Reynoutria japonica*) at 140 m and Butterfly-bush (*Buddleja davidii*) at 246 m. Japanese Knotweed was the most frequently recorded species overall (45 records, 140–1,067 m), followed by Butterfly-bush (8 records, 246–871 m). The remaining CAT2/CAT3 records related to species including Bee Orchid (*Ophrys apifera*, 5 records, 539–1,171 m), Wilson's Honeysuckle (*Lonicera nitida*, 4 records, 408–968 m), and Wormwood (*Artemisia absinthium*, 3 records, 421–807 m).
- Other species accounted for 106 species records and included: invertebrates (77 records, including butterflies, hymenopterans/bumblebees, moths, beetles, orthopterans, a true bug, and a dragonfly, the nearest being Harlequin Ladybird *Harmonia axyridis* at 170 m); fungi and slime moulds (27 records, all between 1,171 m and 1,720 m, comprising waxcap and allied grassland fungi taxa); fish (1 record, for Brown/Sea

Trout *Salmo trutta* at 984 m); and a non-insect invertebrate record (1 record, for a crustacean *Crangonyx pseudogracilis/floridanus* at 854 m). No records of Bryophytes or Lichens were returned.

3.2 Statutory Sites

No part of the site is within a statutory site of nature conservation interest. Several statutory sites are recorded within the search area, the nearest being Cwm Glo a Glyndyrys SSSI at ≈1.1 km, followed by Cwm Taf Fechan Woodlands SSSI at ≈2.4 km, and further SSSIs and SACs, including Usk Bat Sites SAC, at up to ≈13.5 km. Two areas of non-statutory Ancient Semi-Natural Woodland are also recorded, the nearest at ≈720 m to the south east.

4.0 Phase 1 Habitat Survey Results

4.1 Habitat Descriptions

- **Disturbed land (J1.3):** Areas of disturbed land are present across much of the western portion of the site, characterised by exposed bare ground, mounded rubble and construction debris, and sections of burnt material. A large skip and stockpiled waste materials are stored within this area. Colonisation by ephemeral and ruderal species was dominant. This habitat is considered to be of limited intrinsic ecological value but may offer temporary refugia for invertebrates and opportunistic foraging for generalist bird species. Ongoing disturbance is likely to continue restricting further vegetative establishment (see Target Notes 1–3, below).
 - **Target Note Number: TN1.** Several sections of building materials are stored on the site. These provide a limited potential as refugia for small mammals, reptiles, and amphibians.
 - **Target Note Number: TN2.** A soil pile provides a limited potential as refugia for small mammals, reptiles, and amphibians.
 - **Target Note Number: TN3.** A stone pile provides potential refugia for small mammals, amphibians and reptiles and a potential basking opportunity for reptiles.
- **Fence (J2.4):** A timber close-board fence forms part of the site boundary, providing a physical barrier between the site and adjoining land. Bramble (*Rubus fruticosus* agg.) has established at the base of the fence line, contributing modest structural cover. Japanese Knotweed (*Fallopia japonica*) was also recorded at the base of the fence, representing a significant ecological and legal constraint under Schedule 9 of the Wildlife and Countryside Act 1981. Whilst the fence itself is of negligible ecological value, the associated vegetation provides limited shelter for invertebrates, and the presence of Japanese Knotweed will require appropriate management prior to development.
- **Wall (J2.5):** A concrete block retaining wall is present along part of the site boundary, providing a stepped division between the site and land immediately beyond. The wall is of solid construction with limited cavities, offering minimal ecological value in itself; however, colonising ruderal vegetation was recorded at its base and along its upper margin, reflecting the broader pattern of ground disturbance recorded elsewhere on site. The wall's structural integrity limits opportunities for crevice-dwelling fauna, though it contributes to the overall boundary demarcation of the site.
- **Building (J3.6):** Four built structures are located within the site. Building A comprises a rendered, single-storey industrial unit with a pressed steel roof and an external metal staircase providing upper-level access. Building B is a block-built garage beneath a tiled pitched roof, situated to the rear of the plot. Buildings C and D consist of two steel storage containers positioned together and used for materials storage. Further detail on the roosting potential of these structures for bats is provided in Section 5.1.
- **Other [tarmac] (J5):** A substantial area of tarmac hardstanding occupies part of the eastern yard, historically used for vehicle access and materials storage. The surface remains largely intact, with only sparse colonisation by pioneer vegetation. This habitat is of negligible ecological value, providing an impermeable surface which precludes the establishment of vegetation communities and contributes to surface water run-off. It retains a functional role in supporting the operational use of the yard but offers little scope for wildlife utilisation in its current condition.

No water bodies were recorded on or adjacent to the site. The site is surrounded by a dense urban landscape.

5.0 Preliminary Roost Assessment (PRA) / Daytime Bat Walkover (DBW)

5.1 Structures

Four structures were present on the site at the time of the survey: Building A (an industrial unit), Building B (a garage), and Buildings C and D (steel storage containers).

Building A is a late 20th-century, block-built industrial unit comprising a main structure and single-storey extensions to the southern and western elevations. The roof is of sheet metal construction. Bargeboards and rainwater goods are of uPVC, and masonry sections are finished in pebbledash. The building is well maintained, with materials recorded to be in good condition. Potential Roost Features (PRFs) were identified: the sheet metal roof covering was assessed as offering negligible bat interest; gaps were recorded beneath sections of sheet metal cladding on the southern elevation, providing access to an interior space of unknown proportions; a minor gap was recorded along the door frame of the main structure, and a further gap was recorded along the door frame of the western extension; minor gaps were recorded behind the uPVC bargeboards, the majority too small to offer bat interest, with a small number of areas assessed as offering greater potential; internal gaps were recorded within the fabric of the main structure (ground floor) and within the western extension; and a narrow passageway along the rear (western) elevation, with an opening to the adjacent gardens, was identified as offering a potential access point. No evidence of bat occupation was recorded from external or internal inspection where accessible, and no evidence to suggest use by a maternity or hibernation roost was encountered. The void space behind sections of sheet metal cladding was not accessible for direct inspection.

Roost Potential: Low, reflecting the presence of the rear passageway offering potential night-roost use in addition to multiple minor PRFs. Breeding bats are not identified as a concern based on the evidence recorded.

Given the roost potential associated with the rear passageway feature at Building A, a static detector survey is recommended, comprising the deployment of one static detector unit within the covered passageway to the rear of the building for a minimum period of 14 days, in order to establish whether the feature is used by roosting or transiting bats.

Building B is a block-built single garage with a concrete roof incorporating ridge tiles and a bitumen membrane, and timber bargeboards. PRFs identified include the ridge tiles and bitumen membrane, and minor cavities recorded within the timber bargeboards. Internal access was not available, and the interior roof space could not be inspected directly. No evidence of bat occupation was recorded from external inspection.

Roost Potential: Low, with breeding bats not identified as a concern.

Buildings C and D are steel storage containers. No PRFs were identified, and no features capable of supporting roosting bats were recorded. No evidence of bat occupation was recorded.

Roost Potential: Negligible.

No classic hibernation sites were identified on site, and no cellars or underground spaces were recorded.

Taking into account the findings of a previous bat survey report (Little Wing Ecology (CYF), 2023), which recorded no evidence of bats using Buildings A–C as a roost across two dusk emergence surveys, the site as a whole has been assessed as being of overall low roosting risk, and a minimum of one further survey visit is considered necessary. No maternity or hibernation roost is suspected at this site.

Following guidelines set out in the Bat Conservation Trust's Good Practice Guidelines (Collins, J. (Ed.), 2023), the site as a whole has been categorised as being of low risk, with breeding bats not identified as a concern, requiring a minimum of one dusk survey for bats. This represents the minimum recommended number of visits to give

confidence in a negative result for structures of this risk categorisation. Should higher than expected activity be recorded, additional survey effort will be required. The initial categorisation of roost potential is made irrespective of species conservation status, which will be fully evaluated should presence be confirmed through further survey effort. Should subsequent bat activity surveys reveal higher levels of bat activity, or confirm a roost of greater significance, this initial assessment will require reassessment and potential re-categorisation in accordance with current guidance.

5.2 Habitat Suitability for Commuting and Foraging Bats

Flight Paths: The on-site Phase 1 Habitat Survey identified no vegetated linear features within the site boundary capable of supporting commuting bats. The site is dominated by disturbed land (J1.3) and buildings (J3.6), with areas of other habitat (J5) present to the east, and is enclosed by close-boarded fencing (J2.4) and boundary walling (J2.5). In the absence of hedgerows, treelines or other continuous, structurally linked vegetation, the site boundary is considered to offer negligible to low suitability for commuting bats. Fence lines and walls are considered to form fragmented, unvegetated edges rather than functional flight lines, and are not considered likely to be used preferentially by light-averse or edge-dependent species such as horseshoe bats (*Rhinolophus* spp.). Common Pipistrelle and Soprano Pipistrelle, being more tolerant of built environments and habitat gaps, may make incidental, low-value use of the boundary treatments when transiting the wider townscape, although the site itself is not considered to form part of an identifiable commuting corridor. Functional connectivity for commuting bats is considered to be derived from linked gardens within the wider landscape, rather than from any on-site feature.

Foraging Habitat: Habitats present on site — disturbed land (J1.3), other habitat (J5, comprising tarmac hardstanding) and buildings (J3.6) — are considered to lack flowering or scrub vegetation, standing water, or other features typically associated with abundant invertebrate prey. These habitats are therefore considered to offer negligible to low suitability for foraging bats. The buildings on site are considered to retain limited, incidental value where security or amenity lighting is present and attracts aerial insects, although this is not considered a significant foraging resource. No features of higher intrinsic value to foraging bats, such as mature trees, scrub, wetland or watercourse habitat, are present within the site boundary.

The survey site is situated within the settlement of Twynrydyn, Merthyr Tydfil. The site is embedded within a dense residential and commercial townscape, characterised predominantly by terraced housing, hardstanding and associated built infrastructure. Localised areas of incidental and amenity greenspace are present within the surrounding streets, providing limited semi-natural habitat within an otherwise urbanised setting. Playing fields and areas of amenity grassland lie to the north of the site, associated with Thomastown Park, while a graveyard, supporting semi-natural grassland and mature trees, lies approximately 160m to the east.

The wider landscape is characteristic of a South Wales valley, with the River Tâf located approximately 830m west and the Nant Morlais approximately 775m north-west, both representing significant linear watercourse features. Habitat exhibiting upland characteristics lies approximately 630m east, while Bannau Brycheiniog National Park lies approximately 3.9km to the north, encompassing extensive areas of semi-natural and upland habitat. These features, together with the Tâf Fechan situated approximately 3.1km north-west, form a network of ecological corridors providing foraging and commuting opportunities for bats, small mammals and amphibians, and facilitating connectivity across the wider landscape beyond the site itself.

5.3 Evidence of Nesting Birds

The features identified during the PRA, including gaps within the fabric of Buildings A and B and behind bargeboards, provide opportunities for nesting birds, and in particular house sparrows (a CAT1 species). The biological records search returned records for a number of CAT1 bird species within the wider search area, including House Sparrow, Swift, and Grey Wagtail. No active nest was identified during the survey visit.

5.4 Other Protected Species Results

No other specific protected species surveys were undertaken as part of this Preliminary Ecological Appraisal. Owing to the site's poor connectivity to the wider landscape and its location within a predominantly urban setting, reptiles, amphibians, and larger mammal species are considered likely to be absent from the site, with suitable dispersal corridors to source populations largely absent. Given the negligible to limited botanical diversity recorded on site and its predominantly hardstanding character, the potential for small mammals is considered to be principally limited to the refugia features identified at Target Notes 1–3 (Section 4.1). Nesting birds may utilise the buildings and boundary vegetation described in Section 4.1; precautionary mitigation in respect of this group is set out in Section 8.2.

6.0 Survey Constraints and Limitations

6.1 Constraints Encountered

- **Type of Constraint:** Single-visit nature of the Preliminary Roost Assessment (PRA).
- **Description of Constraint:** Access was available to all areas of the site, allowing a thorough inspection of all potential roosting features; however, a PRA is not intended to confirm the presence or absence of roosting bats on site, and the void space behind sections of sheet metal cladding to Building A could not be directly inspected.
- **Implications and Mitigation:** This limitation is mitigated by the recommendation of further survey effort (a static detector survey of Building A and, if works are proposed, a dusk emergence survey of Building B, as set out in Section 8.1) to establish the precise roosting status of the features identified.
- **Type of Constraint:** Single-visit nature of the botanical assessment.
- **Description of Constraint:** This PEA assessment is not intended to confirm the presence or absence of all plant species on site, as different species emerge and flower at different times of the year.
- **Implications and Mitigation:** As the survey was undertaken on 15th June 2026, within the optimal season for botanical assessment (April to September), this constraint is not considered to have materially affected the characterisation of habitats or dominant species present.

7.0 Discussion

7.1 Ecological Value and Significance

The site's ecological value is considered to be Low. Extensive areas of building rubble, ruderal vegetation, and bare ground are of negligible intrinsic ecological value, though they do offer limited opportunities for shelter for certain species, as identified at Target Notes 1–3. The four on-site structures offer variable potential for roosting bats, ranging from Moderate (Building A) to None (Buildings C and D), while the site as a whole offers Negligible to Low suitability for commuting and foraging bats, this function being derived instead from watercourse corridors within the wider landscape. The site is an isolated open space within a dense urban landscape, with limited connectivity to the wider ecological network with the exception of linked gardens. The presence of Japanese Knotweed at the site boundary represents a significant legal and ecological constraint under Schedule 9 of the Wildlife and Countryside Act 1981. While no protected or priority species were identified during the survey, their potential presence, particularly in relation to the refugia features noted above, cannot be entirely discounted given the inherent limitations of a preliminary assessment.

7.2 Potential Ecological Impacts (in absence of mitigation)

Without the implementation of appropriate mitigation, several potential ecological impacts could arise from the proposed development:

- **Bats:** Works affecting Building A without prior confirmation of the status of the rear passageway feature could result in the damage, destruction, disturbance, or injury or mortality of roosting bats. Construction activities, including noise, vibration, and lighting, could disturb bats commuting or foraging in the surrounding area.

- **Reptiles, Amphibians, and Small Mammals:** Site clearance affecting the refugia features identified at Target Notes 1–3 could result in the injury or mortality of small mammals, reptiles, or amphibians sheltering within these features.
- **Nesting Birds:** Disturbance to, or loss of, nesting habitat within the buildings or boundary vegetation could occur if clearance or demolition works are undertaken during the bird breeding season (typically March to August inclusive).
- **Invasive Species:** Disturbance of the Japanese Knotweed stand recorded at the site boundary during groundworks could result in the further spread of this species, contrary to Schedule 9 of the Wildlife and Countryside Act 1981.
- **Connectivity and Green Infrastructure:** Loss of the limited boundary vegetation and surrounding urban trees without adequate replacement could further reduce the already-limited habitat connectivity available to this isolated site.

8.0 Recommendations

8.1 Further Survey Requirements

- **Bats (Building A – Static Detector Survey):** Given the roost potential associated with the rear passageway feature, a static detector survey is recommended. One static detector unit should be deployed within the covered passageway to the rear of the building, for a minimum period of 14 days, to establish whether the feature is used by roosting or transiting bats, prior to any works affecting this structure.
- **Bats (Building B – Dusk Emergence Survey):** Given the Low roost potential identified, a single dusk emergence survey is recommended should any works be proposed to this structure.
- **Invasive Species (Japanese Knotweed):** Given the presence of Japanese Knotweed on site, a management plan should be developed and implemented to control and eradicate this invasive non-native species prior to or during development works. This plan should adhere to relevant legislation and best practice guidance to prevent its spread.

8.2 Avoidance, Mitigation, and Enhancement Measures

- **General Mitigation:** Detailed avoidance and mitigation measures for bats, amphibians/reptiles/small mammals, and nesting birds should be incorporated into the development plan.
- **Amphibians, Reptiles, and Small Mammals:** To mitigate the low risk of encountering amphibians, reptiles, and small mammals, particularly within the areas identified by target notes, a fingertip search must be conducted by a suitably experienced and licensed ecologist prior to any further site clearance. This is essential to prevent the potential for accidental injury or mortality of these animals during works. Should any protected species be identified during the search, all work must cease, and a European Protected Species (EPS) licence from Natural Resources Wales will be required before work can recommence. Given the potential for these species to be present year-round, a precautionary approach is advised.
- **Bats (Lighting):** To prevent any adverse impact on the potential commuting and foraging habitats for bats post-development, the provision of any permanent lighting on-site will require a sensitive lighting scheme. A lighting plan for the site must be functional and directional only, kept to a minimum, and service only the public areas of the proposed development (as required for safety and security). It must be achieved using baffles and screens, if necessary, to ensure no light spill on any retained or planted vegetation (including off-site vegetation, where there is a potential to impact animals using nearby habitat features). The sensitive lighting scheme must follow advice detailed in 'Bats and Artificial Lighting in the UK: Technical Guidance Note 08/23' (2023). No external lighting is to be installed along the northern or western boundary of the site to prevent adverse impacts on the adjacent habitat features. Between March and September (inclusive), external lighting during the development period is to be limited to that which is necessary for safety and security, kept to a minimum, and where possible, works restricted to daylight hours. This is required to prevent incidental impacts on commuting and foraging bats at the site.
- **Green Infrastructure and Tree Planting:** Urban trees recorded in the surrounding landscape to the site represent an important component of the local green infrastructure network, providing ecological, amenity,

and environmental functions including canopy cover, carbon sequestration, and habitat connectivity. Tree planting to be included in the plans should be of native species of local provenance wherever practicable, appropriately sized at the time of planting (minimum heavy standard recommended), located to enhance existing green infrastructure corridors and habitat connectivity, and protected and maintained for a minimum of five years following planting to ensure successful establishment.

- **Hedgehogs:** To prevent local habitat fragmentation and maintain connectivity for hedgehogs, it is recommended that access holes, of a suitable size to allow passage, are incorporated into the base of each new garden fence.
- **Nesting Birds:** If a nest is discovered during works and is active, it must be left undisturbed until all the chicks have fledged. If any features associated with nesting birds are required to be altered during the bird breeding season, a further inspection by a suitably qualified ecologist is required no more than 24 hours before this process commences. If an active nest is found during site inspection, an exclusion zone around the nest will be necessary to preserve this feature until the chicks have fledged the nest. To compensate for the loss of nesting bird habitat, an appropriate number of bird boxes must be installed on nearby trees or structures before site operations have been completed. Precise specifications and numbers of bird boxes must be advised once final layout designs have been finalised; suitable models will be of a woodcrete construction to ensure longevity.
- **Enhancement:**
 - Integrated bat boxes should be installed within the new development.
 - Integrated bird nesting boxes suitable for swifts should be installed.
 - Access holes for hedgehogs should be incorporated at the base of new garden fences.
 - Native, wildlife-friendly hedge planting should be incorporated at the boundary of the site to maintain connectivity and provide opportunities for shelter and foraging.
 - Native shrubs such as birch, rowan and hazel should be included in landscaped areas.
- **Biodiversity Net Gain:** Implementation of the biodiversity enhancement features for net-gain biodiversity, as outlined in Section 10.0, is required to achieve a net gain for the site.

9.0 Report Validity

This report is valid for a period of **24 months**.

10.0 Biodiversity Net Gain

In accordance with the provisions of Chapter 6 of 'Planning Policy Wales' (Distinctive and Natural Places) and 'Local Planning Policy', biodiversity enhancement measures will be incorporated into the landscaping scheme of the proposed works to maximise the ecological value of the site.

10.1 Specific Enhancement Measures

- **Enhancement for Bats:** In line with the National Planning Policy Framework, the development should aim to enhance the site for bats. One Integrated Eco Bat Box, or similar artificial roost(s), should be installed on the southern or western aspect of each proposed new residential unit with the purpose of providing roosting habitat for species such as pipistrelle. In general, bats seek warm places, and for this reason boxes should be located where they will receive full/partial sun, although installing features in a variety of orientations will provide a range of climatic conditions. Boxes should be positioned at least 3 m (ideally 6 m) above ground to prevent disturbance from people and/or predators, with the most suitable location being the southern elevation, directly below the eaves.
- **Enhancement for Birds:** This area is to be enhanced to provide additional opportunities for breeding birds. One Pino Build-in Swift Box (or similar) nest box should be attached to the northern/eastern aspect of each proposed new residential unit. The nesting box must be of a woodcrete construction to ensure longevity.
- **Enhancement for Hedgehogs:** To maintain and enhance connectivity for hedgehogs, one hedgehog access hole (approximately 13 cm × 13 cm) will be incorporated at the base of each new boundary fence.

- **Enhancements for Birds and Invertebrates (Planting and Landscaping):** To mitigate for the potential loss of trees/scrub, maintain connectivity, and increase biodiversity, native trees, shrubs, or a hedgerow will be planted, including Downy Birch (*Betula pubescens*), Rowan (*Sorbus aucuparia*), and Hazel (*Corylus avellana*). For hedgerows, a double-row planting is recommended, with rows at least 40 cm apart and 4–6 plants per metre, highlighting the importance of hedgerows for UK Biodiversity Action Plan (BAP) priority species. To provide foraging habitat for bats, night-scented, nectar-rich planting should be incorporated to support foraging invertebrates and, in turn, foraging bats, including Common Evening Primrose (*Oenothera biennis*), Night-Scented Stock (*Matthiola longipetala*), and Nicotiana (*Nicotiana glauca*). A species-rich under-canopy seed mix will be included with the tree planting/hedgerow, and a species-rich seed mix will be used for all new green spaces/lawns.
- **Invasive Plant Species:** Vigilance will be maintained throughout the course of the works to ensure that the works do not cause invasive plant species to spread in the wild.

10.2 Conclusion of Biodiversity Net Gain

The proposed measures will maintain connectivity, increase local biodiversity, and provide additional nesting and foraging opportunities, thereby achieving biodiversity net gain for the site.

Implementation and Maintenance: The owners will be responsible for the implementation of these enhancements and the ongoing maintenance of the enhancement features in perpetuity. Should any feature fail or become damaged, it will be promptly replaced.

11.0 References

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- Collins, J. (Ed.) (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edition). The Bat Conservation Trust, London.
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- Welsh Government. (2024). *Planning Policy Wales, Edition 12*. Welsh Government, Cardiff.
- Wildlife and Countryside Act 1981 (as amended). The Stationery Office, London.

Appendix A: Site Location

Date: September 2026

Produced by: Little Wing Ecology

Our Reference: LT444

Author: N S Aldridge

Legend

● Site location



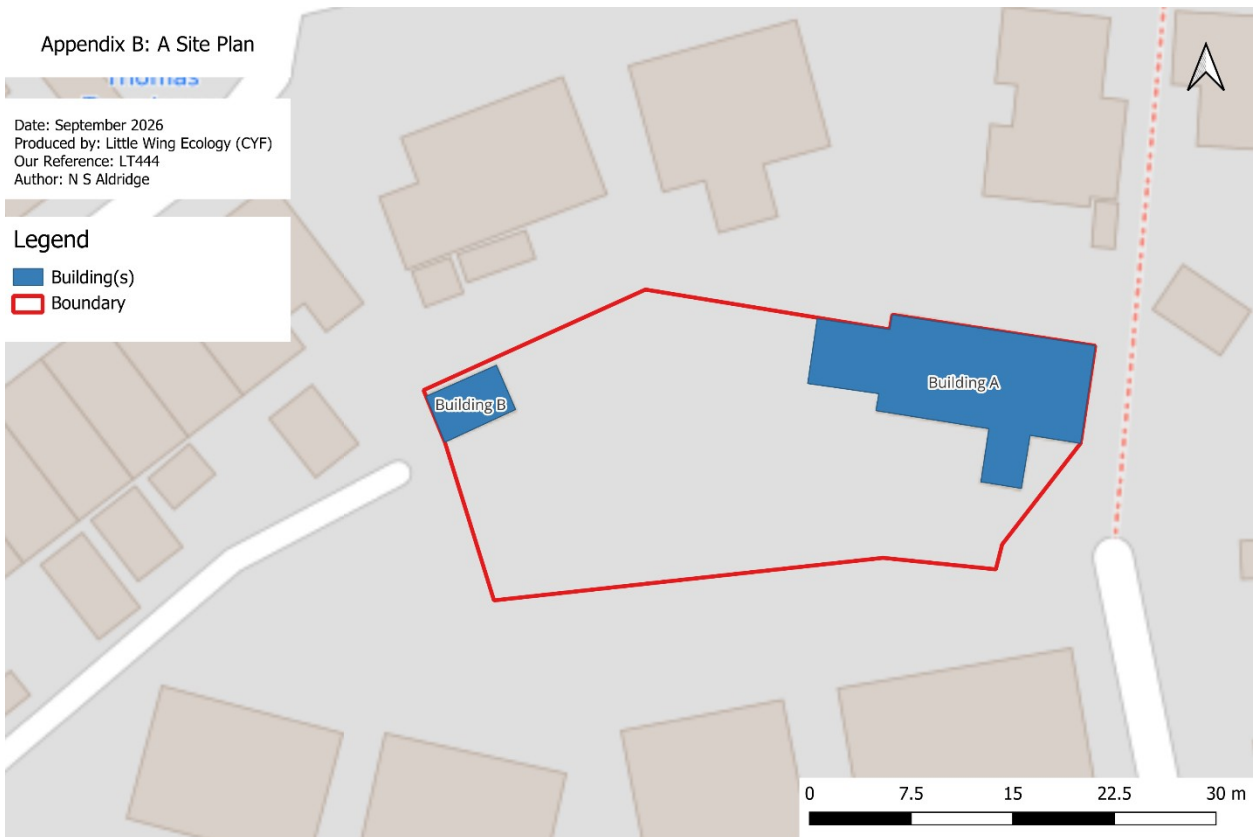
QGIS Development Team, <2026>. QGIS Geographic Information System. Open-Source Geospatial Foundation Project.

Appendix B: A Site Plan

Date: September 2026
Produced by: Little Wing Ecology (CYF)
Our Reference: LT444
Author: N S Aldridge

Legend

- Building(s)
- Boundary



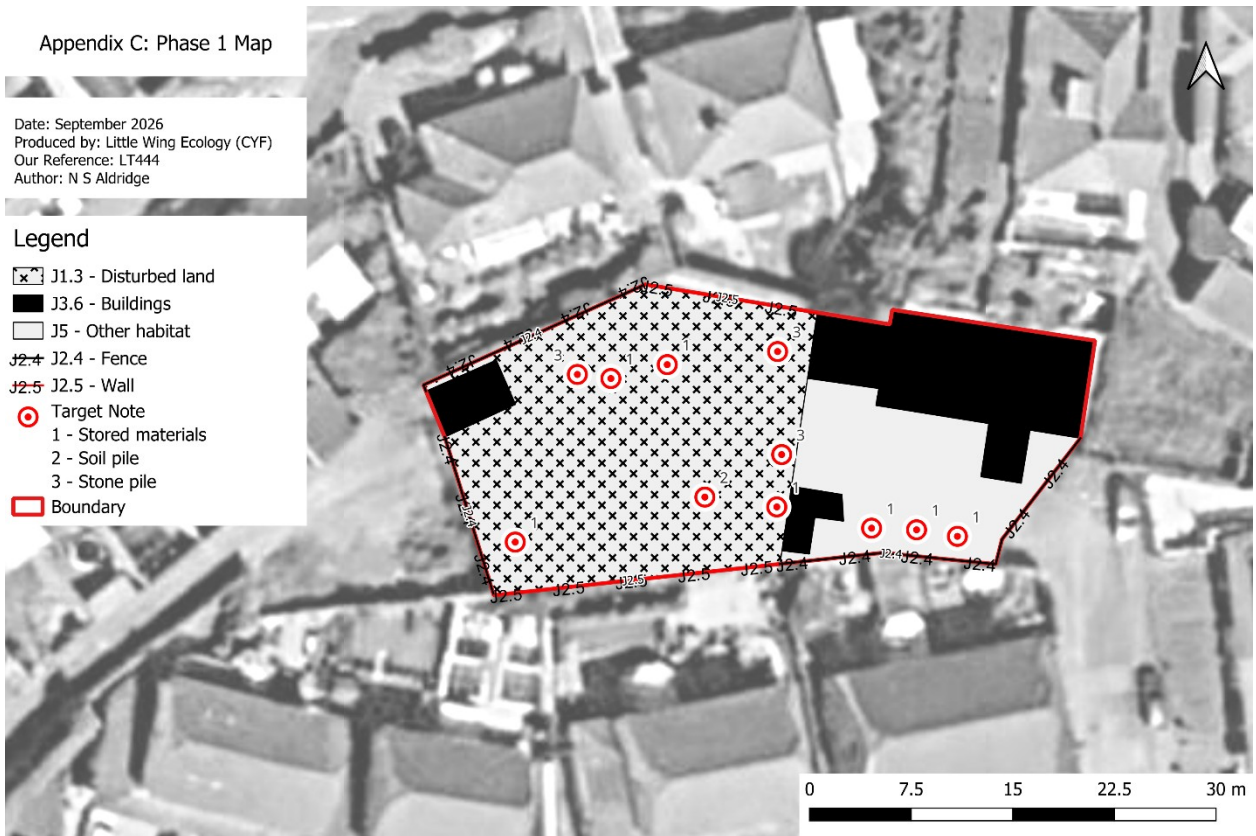
QGIS Development Team, <2026>. QGIS Geographic System. Open-Source eospatal Foundation Project.

Appendix C: Phase 1 Map

Date: September 2026
 Produced by: Little Wing Ecology (CYF)
 Our Reference: LT444
 Author: N S Aldridge

Legend

-  J1.3 - Disturbed land
-  J3.6 - Buildings
-  J5 - Other habitat
-  J2.4 J2.4 - Fence
-  J2.5 J2.5 - Wall
-  Target Note
 - 1 - Stored materials
 - 2 - Soil pile
 - 3 - Stone pile
-  Boundary

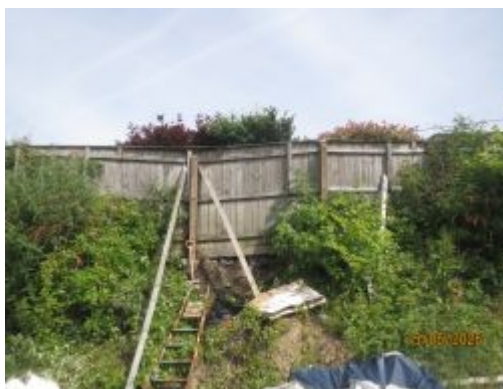


QGIS Development Team, <2026>. QGIS Geographic System. Open-Source eospacial Foundation Project.

Appendix D: Habitat - Site Photographs



Disturbed ground - ephemeral (J1.3)



Fence (J2.4)



Wall (J2.5)



Building (J3.2)



Other (J5)

Appendix E: Target Notes – Site Photography



Target Note 1 – Stored materials



Target Note 2 – Soil pile



Target Note 3 – Stone pile

Appendix F: PRA & Daytime Bat Walkover - Site Photography



Building A (Industrial Unit – Western portion): Exterior - Main structure – Southern elevation – Late 20thC block-built industrial unit with a sheet metal roof construction. Bargeboards are uPVC and uPVC rainwater goods are present throughout. The building is well maintained, and materials are in a good condition. Masonry sections are finished in pebbledash.



Building A (Industrial Unit – Eastern portion): Exterior - Main structure – Southern elevation - Late 20thC block-built industrial unit with a sheet metal roof construction. Bargeboards are uPVC and uPVC rainwater goods are present throughout. The building is well maintained, and materials are in a good condition. Masonry sections are finished in pebbledash.



Building A (Industrial Unit): Exterior – Single storey extension to the southern elevation – Late 20thC block-built industrial unit with a sheet metal roof construction. Masonry sections are finished in pebbledash.



Building A (Industrial Unit): Exterior – Single storey extension to the western elevation – Late 20thC block-built industrial unit with a sheet metal roof construction.



Building A (Industrial Unit): Interior (ground floor) –



Building A (Industrial Unit): Exterior - Southern elevation

PRF: Internal gaps present in the fabric of the building. No evidence of occupation by bats. No droppings. No evidence to suggest occupation by maternity roost was encountered.	- PRFs: gaps under sheet metal cladding providing access to an interior space of unknown proportions. No evidence of occupation by bats. No droppings.
	
Building A (Industrial Unit): Exterior - PRF: Minor gap along door frame providing a potential access point to the interior. No evidence of occupation by bats. No droppings. No evidence to suggest occupation by maternity roost was encountered.	Building A (Industrial Unit): Exterior - PRF: Minor gaps recorded behind uPVC bargeboards. Mostly too small to offer bat interest with a small number of areas offering more potential. No evidence of occupation by bats. No droppings.
	
Building A (Industrial Unit): Exterior - Sheet metal roof with negligible bat interest.	Building A (Industrial Unit): Interior - PRF: A narrow passageway along the rear of the building (facing west) with an opening to the adjacent gardens offering potential access for roosting bats (i.e., as a night roost) - No evidence of occupation by bats. No droppings. No evidence to suggest occupation by maternity roost was encountered.
	
Building A (Industrial Unit): Interior - A narrow	Building A (Industrial Unit): Interior - No evidence of

passageway along the rear of the building (facing east) with an opening to the adjacent gardens offering potential access for roosting bats (i.e., as a night roost) - No evidence of occupation by bats. No droppings. No evidence to suggest occupation by maternity roost was encountered.	occupation by bats. No droppings. No evidence to suggest occupation by maternity roost was encountered.
	
Building A (Industrial Unit): Exterior – Single storey extension to the western elevation – PRF: Internal gaps present in the fabric of the building. No evidence of occupation by bats. No droppings. No evidence to suggest occupation by maternity roost was encountered.	Building A (Industrial Unit): Exterior – Single storey extension to the western elevation – PRF: gap along door frame providing a potential access point to the interior. No evidence of occupation by bats. No droppings. No evidence to suggest occupation by maternity roost was encountered.
	
Building C (Garage): Exterior – Block-built single garage with concrete roof and ridge tiles, bitumen membrane and timber bargeboards with minor cavities. No access available to the interior. No evidence of occupation by bats. No droppings. No evidence to suggest occupation by maternity roost was encountered.	Buildings C and D (Storage units): Exterior – Steel storage containers. No PRFs. No bat interest recorded.

Appendix G – Species List

Common name	Scientific name	J.1.2	J.1.4	J.2.2.2	J5
		Amenity grassland	Introduced shrub	Defunct hedge - species-poor	Other habitat
Black medic	<i>Medicago lupulina</i>	x			
Bramble (European blackberry)	<i>Rubus fruticosus</i>	x			
<i>Buddleia</i>	<i>Buddleja davidii</i>	x			
Buttercup (Creeping)	<i>Ranunculus repens</i>	x			
Clover (Red)	<i>Trifolium pratense</i>	x			
Clover (White)	<i>Trifolium repens</i>	x			
Colt's foot	<i>Tussilago farfara</i>	x			
Dandelion (common)	<i>Taraxacum officinale</i>	x			
Dock (Broad-leaved)	<i>Rumex obtusifolius</i>	x			
Dock (Curly)	<i>Rumex crispus</i>	x			
Forget-me-not (Field)	<i>Myosotis arvensis</i>	x			
Grasses - Annual meadow grass	<i>Poa annua</i>	x			
Grasses - Bent	<i>Agrostis spp.</i>	x			
Grasses - Yorkshire fog	<i>Holcus lanatus</i>	x			
Hairy tare	<i>Vicia hirsuta</i>	x			
Hedge mustard	<i>Sisymbrium officinale</i>	x			
Hedge wound-wort	<i>Stachys sylvatica</i>	x			
Herb Robert	<i>Geranium robertianum</i>	x			
Invertebrate - Buff-tailed bumblebee	<i>Bombus terrestris</i>	x			
Invertebrate - Red tailed bumble bee	<i>Bombus lapidarius</i>	x			
Invertebrate - Seven spot ladybird	<i>Coccinella septempunctata</i>	x			
Ivy (Common)	<i>Hedera helix</i>	x	x	x	
Japanese knotweed	<i>Reynoutria japonica</i>	x			
Maple (Sycamore)	<i>Acer pseudoplatanus</i>	x			
Nipplewort	<i>Lapsana communis</i>	x			
Pinappleweed	<i>Matricaria discoidea</i>	x			
Plantain (Ribwort)	<i>Plantago lanceolata</i>	x			
Poppy (Red)	<i>Papaver rhoeas</i>	x			
Thistle (Prickly-sow)	<i>Sonchus asper</i>	x			
Vetch spp.	<i>Vicia spp.</i>	x			
Willowherb (Broad-leaved)	<i>Epilobium montanum</i>	x			
Willowherb (Great)	<i>Epilobium hirsutum</i>	x			

Appendix H: Meet the Team

Nic Aldridge (NA) is an ecologist with Little Wing Ecology and the author of this report. He is a licensed bat worker (S094182/1) with over 20 years' experience in education and conservation and over eight years' experience surveying built-structures, open habitats, and woodlands for bats. Following a degree in Botany and Zoology, Nic completed an MSc in Wildlife Management, Conservation and Control at the University of Reading. He has practical experience in field-based research with a focus on invertebrate and vegetation diversity and producing phase 1 habitat surveys and habitat management plans. He is experienced in hand netting common pipistrelle and soprano pipistrelle from maternity roosts, has carried out the ringing of Daubenton's bats as part of a multi-year project on the species and has undertaken monitoring work on several important lesser horseshoe bat roosts. Nic writes EPS licence applications, ecological reports and provides Ecological Clerk of Works services. He has attended courses with the Bat Conservation Trust to improve his knowledge and skills and has led voluntary projects to develop habitats and collect species data. Nic founded Little Wing Ecology in 2021 as a not-for-profit, to use the skills and expertise of an ecological consultancy to work with the local community, support local conservation projects and provide training and education for the next generation of ecologists.

Elizabeth Winstanley (LW) is a Nature Recovery Officer with a large Conservation Organisation, and a wildlife surveyor with Little Wing Ecology. She has over ten years' experience working in practical conservation. Following a degree in Outdoor Education, Liz volunteered with The Wildlife Trust before taking on her current responsibilities. She has held her current position since 2015. During this time, Liz has undertaken numerous surveys and monitoring projects, including work on butterfly transects, phase 1 habitat surveys, reptile and amphibian surveys, upland monitoring, BTO bird box round, intermediate tree survey and inspection, dormouse training and recording, bumblebee conservation – bee walks and many more. Currently Liz is responsible for the management of seven Nature Reserves including four SSSIs. Liz has also attended several training sessions to develop her knowledge, understanding and practical skills in bat monitoring and bat ecology.

Tracey Cotterell (TC) is employed by the NHS as a Porter and a wildlife surveyor with Little Wing Ecology. Tracey has a lifelong love of nature and enjoys spending her spare time volunteering with organisations such as The Welsh Wildlife Trusts, Blaenavon Heritage and the TRF (Trail Riders Fellowship). She enjoys being outdoors, whether in a working capacity or for personal interest such as running, riding, or surfing. She has volunteered throughout her life in roles as varied as an NHS First Responder, to working for the Wildlife Trust. During this time, she has gained skills in volunteering with environmental conservation matters, and through being a signaller in a search and rescue team. Tracey enjoys the responsibility of conserving the surrounding environment, learning, and helping to regulate human activities to minimise direct and indirect negative impacts on both flora and fauna. Tracey has also attended several training sessions to develop her knowledge, understanding and practical skills in bat monitoring and bat ecology.

Yvette Amos (YA) is a wildlife surveyor with Little Wing Ecology. She has a lifelong love of nature and enjoys spending her spare time and vacations centred around nature and wildlife focused destinations. Yvette enjoys being outdoors, where she expresses her love of photography along with her interest in the natural world. She is experienced in data collection at a high level, having formerly worked for Cardiff University, School of Social Sciences and Computer Science. Yvette has attended several training sessions to develop her knowledge, understanding and practical skills in bat monitoring and bat ecology and is dedicated to gaining experience in nature conservation, wildlife management and ecology.

Richard Farr (RF) is a wildlife surveyor with Little Wing Ecology. Richard has a life-long love of nature and has previously worked with the Gwent Wildlife Trust, where he gained a wide set of practical skills and experiences which have developed his knowledge and understanding of ecology and conservation at a range of the Trust's Local Nature Reserves. He has recently completed his bachelor's degree in ecology and conservation science at the University of the West of England (UWE), which has allowed him to develop knowledge and skills in numerous areas including field/survey techniques, geographical information systems, consultancy, habitat management/identification, data collection, data analysis using software such as RStudio. He has attended multiple training sessions to further develop skills and knowledge in bat monitoring, bat ecology, conducting surveys and associated reports.

Libby Cotterell (LC) is a full-time student and a wildlife surveyor with Little Wing Ecology. She has a lifelong love of nature and the outdoors and enjoys learning new skills and engaging in practical work, in order to have a positive impact on local conservation issues. Libby has attended several training sessions with Little Wing Ecology to develop her knowledge, understanding and practical skills in bat monitoring and bat ecology.

Elise Winstanley (ELW) is a full-time student and a wildlife surveyor with Little Wing Ecology. She previously ran a college newspaper and is committed to community engagement - both in her academic life and in the local community, as shown by her willingness to integrate herself into the towns of both Ebbw Vale and Lampeter. Elise is currently studying creative writing and has a keen interest in nature and habitat preservation. She has attended several training sessions with Little Wing Ecology to develop her knowledge, understanding and practical skills in bat monitoring and bat ecology.

Sam Haycock (SH) is a founding director of Little Wing Ecology and a commercial assurance executive with a national company. Sam has over 20 years' experience in the education sector and four years' experience managing two rural enterprise companies, of which she was a director for three years. She brings a broad range of interdisciplinary skills to her role at Little Wing Ecology where she has responsibility for editing, reviewing, data management and finances. In 2021, Sam became a founding director of Little Wing Ecology, as a social enterprise, that aims to use the skills and expertise of an ecological consultancy, to work with the local community, support local conservation projects and provide training and education for the next generation of ecologists and conservationists.

Appendix I: Additional Information (Species Potential)

Confirmed Presence	Species recorded to be present during the survey. Evidence of species is recorded during the survey.
High	Buildings, trees or other structures with features of interest for use by protected species are recorded e.g. nesting habitat, roosting opportunities and/or ponds. Habitat with high quality foraging opportunities e.g. broadleaved woodland, tree-lined watercourses and grazed grassland. The site is connected to the wider landscape by strong linear features that have the potential to be used by commuting species e.g. a river, stream and/or hedgerows. The site is close to known locations of recorded protected species.
Medium	Several potential habitat opportunities in buildings, trees or other structures recorded during the survey. Habitat could be used for foraging e.g. trees, shrubs, grassland and/or water. The site is connected to the wider landscape by linear features that could be used by commuting species e.g. lines of trees, scrubs or linked back gardens.
Low	A small number of less significant features are recorded. Isolated habitat suitable for foraging e.g. a lone tree or patch of scrub. An isolated site which is not connected by significant linear features in the landscape.
Negligible	No suitable habitats observed.

Appendix J: Additional Information (Bat Friendly Lighting Scheme)

To prevent any adverse impact upon the potential roosting, commuting and foraging habitats for bats adjacent to the Site (post development), specifically on the nearby mature trees, a lighting plan is required. Lighting for the site must be functional and directional only and kept to a minimum, servicing the public areas of the proposed development (as required for safety and security). It must be achieved using baffles and screens if necessary, to ensure no light spill on any retained or planted vegetation (including off-site vegetation - e.g., if there is potential to impact animals using the nearby habitat features).

- A sensitive lighting scheme is recommended and must be created. The sensitive lighting scheme must follow advice detailed in 'Bats and Artificial Lighting in the UK: Technical Guidance Note 08/23' (2023) and comprise of:
- Light fixtures, filaments, light spill and artificial light must be directed away from bat roost entrances, both existing and those to be created as part of the mitigation.
- Luminaires are to be LED only, due to their sharp cut-off, lower intensity, good colour rendition and dimming capability. Luminaires must have a warm white spectrum (ideally <2700 Kelvins), reducing the blue light component and increasing the red-light component.
- Luminaires must feature peak wavelengths of 550nm to avoid the component of light most disturbing to bats.
- Heights of fixtures must be carefully considered to minimise light spill. Only luminaires with an upward light ratio of 0% and with good optical control must be used.
- Luminaires must always be mounted on the horizontal, i.e., no upward tilt.
- Any external security lighting must be set on motion sensors and short (15 second) timers.
- As a last resort, accessories such as baffles, hoods or louvres must also be used, and directed away from any natural features and must not encroach outside the Site boundaries, particularly the surrounding trees, hedgerows, and other vegetation in the landscape.

A copy of 'Bats and Artificial Lighting in the UK: Technical Guidance Note 08/23' (2023) can be found here:

<https://www.bats.org.uk/news/2023/08/bats-and-artificial-lighting-at-night-ilp-guidance-note-update-released>

Appendix K: Biodiversity Enhancement Features

Category	Product / Feature / Information	Availability
Bats	Integrated Eco Bat Box	https://www.nestbox.co.uk/products/integrated-eco-bat-box
Bats	Beaumaris Bat Box	https://www.wildcare.co.uk/beaumaris-bat-box.html?gad_source=1&gclid=CjwKCAjw65-zBhBkEiwAjrRMLWbfTavFlgGTV2ry0OGQEWnqN0eVseleG460NUffHmj6NAF2TcGZhoCsKEQAvD_BwE
Bats	Bat Access Tiles: Slate	https://beddoesproducts.com/
Bats	Bat Access Tiles: Terracotta	https://spicertiles.co.uk/product/bat-access-tiles/
Bats	F2 Schwegler Bat Box	https://www.wildcare.co.uk/bat-box-45.html
Bats	2FN Schwegler Bat Box	https://www.wildcare.co.uk/bat-box-55.html
Bats	Eco Rocket Bat Box (Pole mounted)	https://www.nestbox.co.uk/products/eco-rocket-bat-box
Bats	Eco Kent Bat Box	https://www.nhbs.com/eco-kent-bat-box
Birds	1SP Schwegler Sparrow Terrace	https://www.nhbs.com/1sp-schwegler-sparrow-terrace
Birds	No10 Schwegler Swallow Nest	https://www.nhbs.com/no-10-schwegler-swallow-nest?bkfno=174809&ca_id=1495&adlocale=uk&gad_source=1&gclid=Cj0KCQjw8MG1BhCoARIsAHxSiQn8rz11Yabug80zjBuXHmQn9XgWQgdwqh6TCQceJk6cZwCXiN-ezAaAnb9EALw_wcB
Birds	Schwegler 2m nest box 32mm red	https://www.wildcare.co.uk/schwegler-2m-nest-box-32mm-red.html
Birds	Vivara Pro Seville 32mm WoodStone Nest Box	https://www.nhbs.com/vivara-pro-seville-32mm-woodstone-nest-box?bkfno=234956&ca_id=1495&adlocale=uk&gad_source=1&gclid=CjwKCAjw1emzBhB8EiwAHwZZxQ3ycKKX1WfX_vPwy4H0tmx0d8U47PSFg_oRKWOuj01vGrNPv2budhoC43AQAvD_BwE
Birds	B1 Schwegler Nest Box	www.nhbs.com
Birds	2H Schwegler Open-fronted Boxes	https://www.wildcare.co.uk/wildlife-nest-boxes/bat-boxes/open-front-bird-box.html?gad_source=1&gclid=Cj0KCQjw8MG1BhCoARIsAHxSiQn8rz11Yabug80zjBuXHmQn9XgWQgdwqh6TCQceJk6cZwCXiN-ezAaAnb9EALw_wcB
Birds	Bilbao Nest Box	www.wildcare.co.uk
Botany: Seeds	Species-rich Neutral Grassland (Lawn)	https://www.cumbriawildflowers.co.uk/habitats/neutralhaymeadowmix
Botany: Seeds	Native Woodland Under-canopy Mix: Wildflowers and Native Woodland Under-canopy Mix: Grasses	https://www.pitchcare.com/products/shade-hedgerow-woodland-wildflower?gad_source=1&gclid=CjwKCAiA3JCvBhA8EiwA4kuJZoajG-WP6tDAjs71P4QXzKHYYHzOnsDiaD0cfR0j9fwOW1kwrX0LdLxoCqp8QAvD_BwE
Botany: Seeds	Seed Mix: Pond Edge	https://britishpondplants.co.uk/products/pond-edge-seed-mix#:~:text=Pond%20Edge%20Seed%20Mix&text=The%20first%20consists%20of%2030,the%20wildflowers%20at%20only%201g.
Botany: Saplings	Traditional hedgerow mix	https://hedgelink.org.uk/hedgerows/hedgerow-biodiversity/
Botany: Trees	Standard Downy Birch Tree	https://www.tree-shop.co.uk/product/downy-birch-betula-pubesces/
Botany: Trees	Standard Rowan	https://www.ashridgetrees.co.uk/p/garden-trees/sorbus/aucuparia-mountain-ash-rowan
Botany: Trees	Standard Hazel	https://shop.woodlandtrust.org.uk/hazel
Botany: Trees	Standard Sessile Oak	https://www.ashridgetrees.co.uk/p/garden-trees/oak-quercus/petraea-sessile?utm_campaign=20731047289&utm_medium=cpc&utm_source=google&utm_content=Suitm_term=Suitm_marketing_tactic=20731047289&utm_creative_format=Suitm_source_platform=g_x&gad_source=1&gclid=CjwKCAiA8Lu9BhA8EiwAag16bwlycGfDm5rQcqlzRTVAgPmF9y1L1Ywpm0ZDmt8OCXjV0fx8qoBcX18QAvD_BwE
Ponds	Froglife: Just Add Water: How to Build a Wildlife Pond	https://www.froglife.org/wp-content/uploads/2013/07/JAW2014-for-printing-HLF1.pdf
Invertebrates	RSPB: Wildlife Friendly Compost Heap	https://www.rspb.org.uk/get-involved/activities/nature-on-your-doorstep/garden-activities/how-to-start-composting/?channel=paidsearch&gclid=Cj0KCQjw8MG1BhCoARIsAHxSiQn8rz11Yabug80zjBuXHmQn9XgWQgdwqh6TCQceJk6cZwCXiN-ezAaAnb9EALw_wcB&gclsrc=aw.ds
Invertebrates	Bee Bricks	https://www.wildcare.co.uk/wildlife-nest-boxes/insect-habitat/solitary-insects/greenblue-bee-brick.html?gad_source=1&gclid=CjwKCAjw1emzBhB8EiwAHwZZxQhTPlq1vLIUmTcv0q5w_id941qKkCx5Nsnlh4NVwijJe7wxAnkazhoCggU

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Invertebrates	Schwegler Clay and Reed Insect Nest	www.nhbs.com
Habitat management	Plantlife: Managing a Small Meadow for Wildlife	https://meadows.plantlife.org.uk/3-maintaining-meadows/managing-meadows-of-all-sizes-with-mowing/
Habitat management	Woodland Trust: How to Plant a Tree	https://www.woodlandtrust.org.uk/plant-trees/advice/how-to-plant/
Hedgehogs	Vivara Pro WoodStone Hedgehog House	https://www.wildcare.co.uk/wildlife-nest-boxes/other-mammal-nest-boxes/hedgehogs/woodstone-hedgehog-house-10506.html?gad_source=1&gclid=CjwKCAiA9bq6BhAKEiwAH6bqoG61jaD7qZxLkHiCns8zdzC5xCwnaFe-yOFvsp_pt2WZqavkUqzftthoCjdMQAvD_BwE
Hedgehogs	Eco Hedgehog Hole Plate	https://www.nestbox.co.uk/products/eco-hedgehog-hole-plate?_pos=2&_sid=cfc475fd2&_ss=r
Amphibians	An Amphibian Hibernacula: English Nature: Great Crested Newt Mitigation Guidelines.	https://www.froglife.org/
Planting for bats	Common Evening Primrose (<i>Oenothera biennis</i>): A hardy biennial with yellow flowers that pop open at sunset, letting off a sweet fragrance that acts as a beacon for moths.	https://www.naturescape.co.uk/product/evening-primrose/
Planting for bats	Night-Scented Stock (<i>Matthiola longipetala</i>): An absolute classic for the traditional British cottage garden, releasing an incredible evening aroma.	https://www.chilternseeds.co.uk/item/848/matthiola-longipetala-seeds?srltid=AfmBOorMGfMJaf0-0gkxFj5a_sjP03rXaWl2T6z3w2tX_BLii1_1xj3h
Planting for bats	Nicotiana (<i>Nicotiana alata</i>): Jasmine-scented ornamental tobacco plants with pale flowers that stand out under pale moonlight.	https://www.chilternseeds.co.uk/item/898/nicotiana-alata-sensation-mixed-colours-seeds?srltid=AfmBOorFZSz-EB2T8fOUaLsT1qFrW1kmcc01PzWOfIF3cNKGXdBdBC3W

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CYFYNGIADAU

Mae Little Wing Ecology (CYF) wedi paratoi'r Adroddiad hwn at ddefnydd y Cleient neu ei Asiantau uchod yn unig yn unol â'n telerau busnes, y cyflawnwyd ein gwasanaethau oddi tanynt. Ni roddir unrhyw warant arall, wedi'i mynegi neu ei hawgrymu, ynghylch y cyngor proffesiynol sydd wedi'i gynnwys yn yr Adroddiad hwn nac unrhyw wasanaethau eraill a ddarperir gennym ni. Ni all unrhyw barti arall ddibynnu ar yr Adroddiad hwn heb gytundeb ysgrifenedig penodol ymlaen llaw gan Little Wing Ecology (CYF).

Mae'r asesiadau a wnaed yn rhagdybio y bydd y safle(oedd) a'r cyfleusterau yn parhau i gael eu defnyddio i'w pwrpas presennol heb newid sylweddol. Mae'r casgliadau a'r argymhellion yn yr Adroddiad hwn yn seiliedig ar wybodaeth a ddarparwyd gan eraill ac ar y dybiaeth bod yr holl wybodaeth berthnasol wedi'i darparu gan y partïon hynny y gofynnwyd amdani. Nid yw gwybodaeth a gafwyd gan drydydd partïon wedi'i dilysu'n annibynnol gan Little Wing Ecology (CYF).

Cynhyrchwyd gan:	Little Wing Ecology (CYF) (Cwmni Di-elw Cyfyngedig trwy Warant)
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Cyfeiriad:	24 Stryd Alma, Bryn-mawr, Blaenau Gwent, NP23 4DY
E-bost:	nic@littlewingecology.cymru
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About Us

Little Wing Ecology is a not-for-profit ecological consultancy serving the South Wales Valleys and beyond. We combine professional expertise with community impact, delivering high-quality ecological services while reinvesting in local nature and people.

We are a small ecological consultancy dedicated to providing accessible and pragmatic services that uphold the highest standards of conservation.

Our Services

Survey and Assessment Services:

- Preliminary Ecological Appraisals and Roost Assessments
- Comprehensive bat, reptile, and eDNA surveys
- European Protected Species License Applications

Planning and Implementation Support:

- Mitigation planning and Green Infrastructure Statements
- On-site development support services

Our Mission

As a Consultancy, we use our experience, expertise, and commitment to conservation to provide an accessible and pragmatic service that upholds the highest standards of environmental protection.

As a Not-for-Profit Social Enterprise, we reinvest our profits to create lasting positive change. We collaborate with valleys communities, conservation groups, local authorities, and partners to advance our three core commitments:

A. Helping Nature

We champion biodiversity recovery and resilience through:

- Habitat restoration and enhancement initiatives
- Designing built environments that work with wildlife
- Supporting long-term conservation monitoring that informs future protection efforts

B. Working with People

We believe in empowering communities through meaningful engagement with nature:

- Creating employment, training and volunteer pathways that build ecological skills and confidence
- Fostering the next generation of conservation champions
- Strengthening the connection between people and their natural environment

C. Supporting Communities

We invest in the places and people we serve:

- Reinvesting locally in nature-positive projects and community development
- Promoting environmental education that builds understanding and stewardship
- Providing expertise to support worthwhile causes and community-led initiatives

Our Vision: A thriving South Wales Valleys where nature and communities flourish together, supported by practical conservation action and shared environmental stewardship.

Adroddiad Arolwg gan



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ECOLOGY

NATUR

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