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Preliminary Roost Assessment

Survey site:

Bryn Erddig, Erddig Road, Wrexham, LL13 7DS

Client:

Richard Nicholas

Survey date:

12th December 2024

Project:

This report is prepared to inform a planning application with the Wrexham County Borough Council. The proposal is described as:

Demolition of bungalow

PRA survey methodology and legislation can be found in the Arbtech Supplement: PRA Methodology and Legislation - 2024.

The survey results and recommendations contained within this report are valid for 18 months. An updated site visit may be required if the report is to be used any longer than 18 months after completion.

Site Location and Context

The survey site is centred on National Grid Reference SJ 33011 49264 and has an area of approximately 0.2ha. The site comprises one dwelling (B1), associated outbuilding (B2), a vegetated garden with a line of Lawsons cypress and scattered scrub. It is situated within the sub-urban residential area of Wrexham which comprises of residential dwellings with associated vegetated gardens and scattered green spaces including Wrexham recreation ground to the immediate west and Erddig Parkland ~300m southwest. Both areas are comprised of linear stretches of woodland and amenity grassland which enhance connectivity for the site to the wider landscape for bats within the local landscape. The River Clywedog runs ~350m to the south which further enhances the landscape for bats by providing foraging and commuting opportunities.

Survey Details

The site survey was undertaken by Kayleigh Davies BSc, MSc, Graduate Ecologist (Accredited on Natural Resources Wales Bat Licence Number: details available on request, Natural Resources Wales Level One GCN Licence: details available on request)

Date of survey	Temperature (°C)	Humidity (%)	Cloud Cover (%)	Wind (km/h)	Rain
12/12/2024	5	78	100	0.2	Light rain

Executive Summary

Three bat emergence/re-entry surveys are required on B1 during the active bat season (May – September) to confirm presence/likely-absence of bats roosting in or on the building.

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 and 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.

PRA Survey Factor	Detailed using desk study and site survey. Any specific limitations noted within relevant section. This table 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.
See PRA plan in Appendix 1, location plan in Appendix 2, proposed plans in Appendix 3 and photos in Appendix 4.	
Summary of site and desk Study	Site description The survey site is centred on National Grid Reference SJ 33011 49264 and has an area of approximately 0.2ha. The site consists of one building, B1 (Fig.1), situated in the centre of the site, an associated outbuilding not impacted by the works, B2 (Fig.2) and a vegetated garden with scrub and lines of trees (Fig.3). B1 is an L-shaped single-storey partially pebble dashed bungalow utilised as a residential dwelling with two gabled extensions on the northwestern elevation and a single storey glass conservatory on the southeastern elevation. There is also a flat roof bay window extension on the southern elevation. B1 has a loft conversion resulting in most of the interior having vaulted ceilings. However, there is a small section of the loft not converted which is discussed below. EPSL data A search of the magic.gov.uk database for granted EPSLs within a 2km radius of the site has been completed. There are no EPSL relating to bats within a 2km radius of site. Statutory Designation (2km) There is 1 statutory designation situated within 2km of the site boundary. - **Sontley Marsh Site of Special Scientific Interest (SSSI) – ~1.3km southeast** - *Designated as a significant example of "southern mesotrophic mires wetland type.* The site falls within the SSSI impact risk zone for Sontley Marsh (SSSI). The proposed works is not listed as a significant threat to this designation. European Designation (10km) There are 2 European designated sites within 10km of the site boundary. The closest of which is Johnstown Newt Sites Special Area of Conservation (SAC) designated for great crested newts and situated ~2.7km southwest.
Field survey results	

Summary of Survey Findings	**Foraging and commuting habitat** Habitats recorded on site are assessed to provide foraging and commuting opportunities for bats in the form of lines of trees and dense scrub (Fig.3). These habitats are likely to provide micro-climatic conditions that support invertebrates that will in turn provide foraging opportunities for local bat populations. Most notably, the tree lines on site are mature and extend beyond the site adding to the continuity of vegetated linear features present in the wider landscape. Bats are well known to utilise linear features to aid navigation whilst travelling between foraging resources and roost sites. **Roosting habitat** Buildings and trees to be impacted by the proposed development are assessed for their suitability to support roosting bats below. There are a total of 2 buildings on site; the main barn (B1), and one outbuildings (B2). Only B1 was surveyed as this will be impacted by the proposed development. No evidence of roosting bats was identified on or within B1. None of the onsite trees were assessed as proving suitable roosting features for bats, further none of the onsite trees are assumed to be impacted by the works.

B1 Building description	*Photographs*
Summary B1 is a single storey L-shaped bungalow with two gabled extensions on the northwestern elevation. B2 will not be impacted by the proposed works, however a walkover was completed of these areas and further information can be provided if necessary. This report will focus on the main bungalow as specified by the client. The roof is ceramic tiled, with brick-built walls that are partially pebble dashed. The roof has several lifted or missing tiles with additional areas of missing mortar presenting suitable bat roosting and access feature. The building has **high habitat value**.	

Feature	*Materials*	*Condition/description/suitability*	*Photograph(s)*

Walls	Brick-built with areas of pebble dash	Brick built with areas of pebble dash. No cracks or crevices suitable for roosting bats.	

Roof	Ceramic	The building Is L-shaped with a gable end on the southeastern and southwestern elevations. There are two gable ended extensions on the northwestern elevation. On the southeastern elevation of the hipped roof structure there is a flat roof dormer. There were several areas of lifted or missing tiles across the roof structure in addition to missing mortar along the southeastern gable apex. These features could be suitable access points or roosting features for crevice dwelling bat species.	

Barge boards/fascia boards	Wooden	Tightly sealed against brickwork with no areas of damage or gaps which could be utilised by roosting bats.	
Window/doors frames and lintels	PVC	Tight fitting with no damage or gaps suitable as access points for roosting bats.	

Bay window extension	Brick built Bitumen felt roof	Mortar appeared in good condition with no apparent areas of damage which could create crevices suitable for roosting bats. The roof is structures with bitumen felt which was in good condition with no lifted areas or apparent tears or damage.	

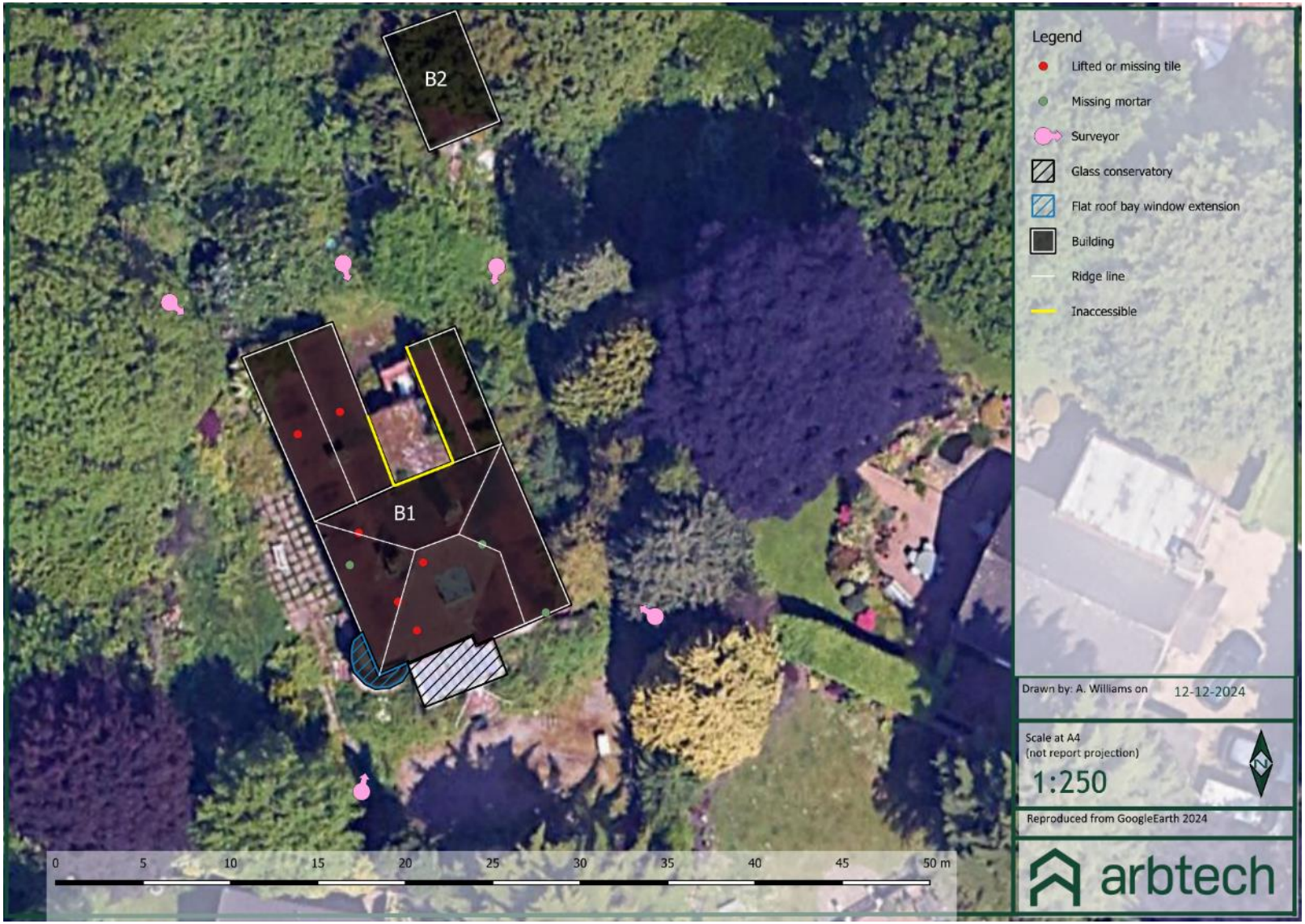
Internal voids	Timber beam structure, mineral wool insulation, no lining at the tiles	The majority of the internal of the structure is a loft conversion which has a vaulted ceiling with areas of damage which have created gaps from the ground level into the roof space above. The small section of loft space remaining measures 7m L x 0.5m W x 1.3m H and the following conditions were recorded 10 °C and 72% relative humidity. There is no lining at the tiles exposing the underneath of the tiles and plaster insulation. The floor is non-boarded with exposed mineral wool insulation. The structure is supported by timber beam which had no evidence of staining to indicate void dwelling species. Additionally, there was a high volume of cobwebs present indicating the void has not been utilising for flight by roosting bats. No evidence of bats such as live animals, droppings, staining, foraging remains were found during the inspection.	

Foreseen Impacts	**Roosting habitat [Buildings]** The proposed development will result in the demolition of the building. This could result in the destruction of any bat roosts present and could cause disturbance, death or injury to bats. **Roosting habitat [Trees]** As none of the trees on site were assessed as providing suitable roosting features for bats, and further are not subject to felling as part of the works, there are no foreseen impacts to roosting bats in trees. **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.
Recommendations	**Roosting habitat [Buildings]** Three bat emergence/re-entry surveys are required on B1 during the active bat season (May – September) to confirm presence/likely-absence of bats roosting in or on the building. These survey visits should be completed during the optimal survey period mid-May to August inclusive. The survey visits should be at least three weeks apart. Sub-optimal: early May and September. Would require greater justification of timing e.g., weather conditions, known local bat activity. Five surveyors equipped with infrared cameras are required to provide full coverage of the building's elevations to look for emerging/re-entering bats. An infrared camera should also be employed as part of the survey to see where any specific roost locations are located. If any bat roosts are confirmed from this survey schedule, a bat licence would be required to demolish the buildings as it would involve the destruction of roosts. This is applied for with the help of a class 2 licensed bat ecologist after planning permission is granted, but before commencement of works. **Roosting habitat [Trees]** 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. **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/our-work/buildings-planning-and-development/lighting-2 **Suggested biodiversity enhancements** The installation of three bat boxes at the site will provide additional roosting habitat for bats. The bat boxes will be incorporated into the fabric of the new dwelling. They will be suitable for pipistrelles (which have been identified locally through EPSL data). 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.
Nesting birds	
Summary of Survey Findings	**Buildings** No evidence of nesting birds was identified on or within B1, however the building is considered suitable for nesting for bird species. **Trees and vegetation** No bird nests were identified within the scrub or tree lines on-site; however, they all offer nesting opportunities and nest-building resources for birds. **Barn owls** The site does not appear to provide any suitable nesting sites for barn owls. **Overwintering birds** Due to the small size of the site and the extent and type of the habitats recorded, the site not considered suitable to support a significant assemblage of protected and/or notable birds.
Foreseen Impacts	**Buildings/trees** The proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests if present within the building during works. **Barn owls** None foreseen. **Overwintering birds**

	None foreseen.
Recommendations	**Buildings/trees** Any building demolition should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the vegetation should be undertaken immediately, by a qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged. Precautions should be taken with machinery and noise levels when working close to any retained nests so as not to disturb any nearby nesting birds during construction works. At least a 3-5m buffer should be created between any machinery and active nests until the young have fledged. **Barn owls** None required. **Overwintering birds** None required. **Suggested biodiversity enhancements** The installation of a minimum of two bird boxes on mature trees around the site boundaries will provide additional nesting habitat for birds e.g. 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.

Appendix 1: PRA map



Appendix 2: Location map



Appendix 3: Proposed plan



Appendix 4: Habitat Photos

Buildings	
Photograph	Description
	Figure 1: Showing B1

	Figure 2: Showing B2 not subject to works
Foraging habitat on site	
Photograph	Description

	Figure 3: Showing the foraging habitat present on site

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