Cushmen and Wakefield

Wrexham Gateway

ECOLOGICAL IMPACT ASSESSMENT

Report Reference Number: FE500/EcIA01

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1.0 EXECUTIVE SUMMARY

1.1 An Ecological Impact Assessment has been undertaken following published guidelines on the likely effects upon biodiversity as a result of a proposed new office building within the new multi-phased development scheme known as Wrexham Gateway.

1.2 The Site is c.2.8ha in extent and located in the centre of Wrexham in, North Wales. The Site comprises Wrexham train station, empty commercial units, Wrexham District Scouts and Girl Guides facility as well as formal landscaping, bareground and trees.

1.3 Proposals comprise:

- the demolition of the Scout and Girl Guides structures and retaining walls to facilitate the construction of a new office building,
- new car parking and pedestrian links for Wrexham Train Station.
- Much of the existing landscaping and trees will be retained within the scheme.

1.4 The assessment identified that the following Important Ecological Features could be affected by the Proposed Development or warrant consideration due to the legal protection afforded to them:

- Johnstown Newt Site (SAC)
- Berwyn and South Clwyd Mountains / Berwyn a Mynuddoedd de Clwyd (SAC)
- River Dee and Bala Lake / Afon Dyfrdwy a Llyn Tegid (SAC)
- Midland Meres and Mosses Phase 2 RAMSAR
- Gatewen Marsh SSSI;
- Habitats of Principal Importance – Traditional Orchard
- Broadleaved Trees;
- Roosting bats
- Commuting and foraging bats;
- Great Crested Newts GCN
- Reptiles and,
- Breeding Birds.

1.5 No impacts are expected in relation to any of the designated sites or habitats of principal importance within the specified zones of influence.

1.6 A number of the buildings are present within the application, two of which (B1 and B2) will be demolished as a result of the proposals. The remaining buildings are to be retained and unaffected by this phase of development.

1.7 Buildings B1 and B2 were identified as providing potential roosting habitat for bats and, as a result, will be subject to further nocturnal surveys to determine whether a roost is present. The results of those surveys will be provided in an addendum report.

1.8 Impacts during the installation of the proposed development on retained habitats will be minimised through the careful control of ground works activities through industry best practice measures as provided in this document.

1.9 Precautionary working methods are required to minimise the risk to GCN and reptiles.

1.10 To comply with relevant legislation, any removal of vegetation will be timed to avoid the bird nesting season where possible (March to August inclusive, although dates do vary depending on the species and weather conditions) or appropriate pre-start assessments will be undertaken by an Ecological Clerk of Works to minimise the risk of a breach of legislation during works.

1.11 New landscaping for the scheme comprises planting of new trees, native scrub and wildflower rich grassland.

1.12 With the implementation of the above mitigation measures, no significant adverse residual effects are envisaged upon any Important Ecological Features as a result of the Proposed Development.

2.0 INTRODUCTION

2.1 The following report has been prepared by Futures Ecology Ltd. on behalf of Cushmen and Wakefield. It provides the results of a habitat appraisal and preliminary protected species survey at a site in the centre of Wrexham, North Wales (grid reference: SJ33016 50805).

2.2 The baseline surveys were undertaken on 28th January 2025 with a follow up on 3rd April 2025 to survey previously inaccessible areas.

2.3 This document has been prepared with reference to the Chartered Institute of Ecology and Environmental Management's (CIEEM) Ecological Impact Assessment (EcIA) Guidelines[1]. The key objectives of the EcIA are to:

- Gain an understanding of the baseline ecology of the site and immediate surrounding area.
- Determine whether the site supports or has the potential to support protected species.
- Identify any likely ecological constraints and use this information to inform the design of the Proposed Development and construction methods where feasible.
- Assess the likely significant impacts of the Proposed Development on Important Ecological Features.
- Identify mitigation measures likely to be required.
- Identify the opportunities offered by the Proposed Development to deliver ecological enhancement.

[1] CIEEM (2024) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.3. Chartered Institute of Ecology and Environmental Management, Winchester September 2024.

2.4 This report should be read in conjunction with the following reports:

- Biodiversity Impact Assessment (BIA), Futures Ecology Ltd, (FE500/BIA01).
- Bat Report Addendum, Futures Ecology Ltd., (FE500/BTR01)
- Great Crested Newt (GCN), Futures Ecology Ltd., (FE500/GCN01)

SITE LOCATION AND CONTEXT

2.5 The Site is located in the north west of Wrexham city centre off Station Approach and encompasses Wrexham Train Station, railway lines and embankments as an area of vacant ground and commercial units. In the north western corner is Wrexham District Scout and Girl Guide facilities. The Site boundary is shown in Figures 1 and 2 for reference.

2.6 Surrounding the Site on all sides is the urban centre of Wrexham with the A541 forming the southern boundary and Wrexham Football stadium along the western boundary. Residential development is present along the northern and eastern boundaries.

DEVELOPMENT PROPOSALS

2.7 The proposals comprise the demolition of the Scout / Girl Guide facilities and retaining wall to facilitate the construction of a new four storey office building. New pedestrian links are proposed from Mold Road to the station platform and a new car park in the northern extent of Site. To facilitate vehicular access into the proposed site a total of 12 trees will be lost with the remaining habitats incorporated into the new layout.

3.0 METHODOLOGY

DESK STUDY

3.1 Prior to the field survey, aerial photographs and mapping tools were reviewed using online mapping resources at a minimum scale of 1:25,000; Google Maps[2] ; and the Multi Agency Geographic Information for the Countryside (MAGIC)[3] to assess the landscape context of the survey area and surrounding areas.

3.2 To support the field survey and compile baseline information of relevance to the Site, ecological information was sought from third party organisations:

- Cofnod Environmental Information,
- Woodland Trusts' Ancient Tree Inventory (ATI)[4],
- Ancient Woodland and Habitats of Principal Importance (MAGIC)[5] and
- Wrexham County Borough Council Planning Portal[6].

[2] www.google.com/maps
[3] www.magic.defra.gov.uk
[4] https://ati.woodlandtrust.org.uk/
[5] https://magic.defra.gov.uk/magicmap.aspx
[6] https://www.wrexham.gov.uk/service/search-planning-applications

3.3 The search area for designated sites and protected species is determined by the likely Zone of Influence (ZoI) and the likely significant affect. The search areas for the various levels of site designation and for protected / notable species is detailed below:

- Sites of international statutory designation such as Special Area of Conservation (SAC), Special Protection Area (SPA) and Ramsar Sites are searched for within a 10km radius around the Site.
- Sites of national or regional importance with a statutory designation of Site of Special Scientific Importance (SSSI) or National Nature Reserve (NNR) within 2km.
- Sites of local importance with statutory designation of Local Nature Reserve (LNR), or non-statutory designation of Site of Importance for Nature Conservation (SINC) or the equivalent Local Wildlife Site (LWS) within 1km; and
- Records of notable / protected species i.e., including Priority Habitats and Species under Section 7 of the Environment (Wales) Act 2016 and local Biodiversity Action Plan (LBAP) species within 1km and bats within 2km.
- European Protected Species (EPS) licences relating to bats and GCN within 2km.

BASELINE SURVEYS

3.4 The initial habitat and protected species surveys (28th January 2025) were undertaken by A. Eales BSc (Hons) who has extensive experience in undertaking these surveys. A. Eales is registered to use Natural England Class Licences in England: Level 2 to survey for bats (CL20: 2021-52518-CLS-CLS) and great crested newts (2016-22825-CLS-CLS).

3.5 The follow-up survey (3rd April 2025) was undertaken by J. Wheeldon who is appropriately qualified for the surveys based on the CIEEM competencies for species surveys and holds licences for bats (WML-CL18, Ref: 2015-12340-CLS-CLS), great crested newt *Triturus cristatus* (WML-CL08, Ref: 2015-12340-CLS-CLS) and white-clawed crayfish *Austropotamobius pallipes* (WML-CL11, Ref: 2016-20902-CLS-CLS).

Habitat Appraisal

3.6 A phase 1 habitat survey was undertaken on 28th January 2025 with a follow up survey on 3rd April 2025.

3.7 Survey methodology followed guidance from the Joint Nature Conservation Committee (JNCC) (2016)[7], comprising a walkover of the survey area mapping habitats present (using JNCC standard habitat codes), broadly describing and classifying the principal habitat types, identifying the dominant plant species present within each habitat type and noting any other features of interest. The frequencies at which plant species occurred were noted using the DAFOR[8] method. Whilst the plant species lists obtained should not be regarded as exhaustive, sufficient information was obtained to determine broad habitat types.

[7] JNCC (2016) Handbook for Phase1 Habitat Survey – a technique for environmental audit. ISBN 0 86139 636 7
[8] DAFOR – Dominant, Abundant, Frequent, Occasional and Rare

3.8 For the purpose of the BIA, the habitat types were also described and evaluated in accordance with the UK Habitat Classification System (UKHab, 2023)[9].

3.9 Habitats were also assessed for their potential to support protected or notable species including any incidental sightings of birds recorded during the walkover. Where potentially suitable habitats were observed, detailed protected species surveys were undertaken using methodology detailed below.

3.10 The distribution and extent of any invasive species listed in Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) and in Schedule 2 of The Invasive Alien Species (Enforcement and Permitting) Order 2019 were also noted during the survey.

Badger *Meles meles*

3.11 A badger survey was undertaken within the application Site and 30m beyond the boundary where possible. The survey followed standard methodology as outlined by Harris *et al* (1989)[11], Creswell *et al.* (1990)[12] and following Natural Resources Wales guidance[13]. Field signs searched for include: setts, earth mounds, bedding material, mammal paths, latrines, snuffle holes, prints, hairs, scratching posts etc.. The identification of some signs on their own does not necessarily provide conclusive evidence of the presence of badgers.

Bats

Ground Level Tree Assessments (GLTA)

3.12 All trees within the Site were assessed for their potential to support roosting bats using guidance and best practice survey methodology (Collins, 2023[14] and Mitchell-Jones & McLeish 2004[15]).

3.13 The trees were inspected from the ground using close focussing binoculars, a high-powered torch, and an endoscope where appropriate. Potential Roosting Features (PRF) for bats such as holes / cavities, loose bark, cracks / splits, occluded bark, and gaps behind ivy stems (please note that this list is not exhaustive) were sought. Other factors such as orientation of the feature, its height from the ground, the direct surroundings and its location in respect to other features may enhance or reduce the potential value of the PRF. Signs indicating possible use by bats were also recorded such as bat droppings, odour, scratches, staining, and audible sounds.

3.14 An assessment was made on the level of bat roosting potential offered by the trees, based on the presence of the features detailed above. Table 1 below outlines the suitability categories as per the Bat Survey Guidelines[16].

[9] UKHab (2023) The UK Habitat Classifications – Habitat Definitions Version 2.0
[11] Harris, S., Creswell, P., & Jefferies, D. (1989). *Surveying Badgers.* The Mammal Society.
[12] Cresswell, P., Harris, S., & Jeffries, D.J. (1990) The history, distribution, status, and habitat requirements of the badger in Britain. Nature Conservancy Council.
[13] Badgers – A Developers Guide, Fact Sheet. (April 2023) Natural Resources Wales.
[14] Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologist: Good practice Guidelines (4th edition), The Bat Conservation Trust, London.
[15] Mitchell-Jones, A.J. and McLeish, A.P. (eds) (2004) *Bat Workers' Manual (3rd edn*). JNCC, Peterborough.
[16] Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologist: Good practice Guidelines (4th edition), The Bat Conservation Trust, London

Table 1 - Suitability of Trees for Bat Roosts - Based on Table 4.2 of Collins (2023)

Classification / Suitability	Description	Likely Further Survey Work
NONE	Either no PRFs in the tree or highly unlikely to be any.	None.
FAR	Further assessment required to establish if PRFs are present in the tree.	Aerial Assessment or further GLTA required by a licensed or accredited bat licence worker.
PRF	A tree with at least one PRF present.	PRF Inspection Survey (Aerial Assessment). If this is not possible alternative access methods such as a MEWP (Mobile Elevated Work Platforms) and / or nocturnal survey work must be considered.

3.15 Upon completion of the above assessment the PRFs are assigned the following:

- PRF-I - PRF is only suitable for individual bats or very small numbers of bats due to size of or lack of suitable surrounding habitats. No further survey work is required.
- PRF-M - PRF is suitable for multiple bats and may therefore be used by a maternity colony. These will require further aerial (close) inspection and / or nocturnal surveys which comprise three visits between May - September, with at least two in the period May - August. Each visit should be at least three weeks apart.

Roosts – Structures

3.16 All buildings within the Site boundary were assessed for their potential to support roosting bats using guidance and best practice survey methodology[17].

3.17 The buildings were inspected externally using close focussing binoculars, a high-powered torch and endoscope where appropriate. Features such as small gaps around or under barge/soffit/fascia boards, windows, lintels, flashing, external pipework and or raised or missing roof/ridge tiles or gaps at gable ends, which have the potential for use as access points, were noted. Evidence that bats actively used such features included: staining within and around the gaps or bat droppings / urine staining under gaps. The presence of cobwebs and or general detritus within and around potential access points was used as an indicator that bats had not recently used the area to access the building.

3.18 An assessment was made on the level of bat roosting potential offered by the structures, based on the presence of the features detailed above. Table 2 below broadly classifies the potential categories and discusses the relevance of such features, where present.

[17] Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologist: Good practice Guidelines (4th edition), The Bat Conservation Trust, London

Table 2 – Bat Roost Potential Classification of Buildings – (Collins, 2023)

Classification / Suitability	Description of Roosting Habitat within buildings	Likely Further Survey Work
None	No features onsite to be used by any roosting bats at any time of year.	No further survey required.
Negligible	No obvious features likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No further survey required.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these do not provide enough space, shelter, protection, appropriate conditions, and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site but could be used by individual hibernating bats).	Nocturnal presence / likely absence surveys are likely to be required to give confidence in a negative result. At least one dusk emergence survey during the appropriate survey period. Further roost characterisation surveys would be required should a roost be confirmed that will be affected by development proposals.
Moderate	A structure with one or more potential roost sites that could be used due to their size, shelter, protection, conditions, and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation site).	At least two nocturnal presence / likely absence required to give confidence in a negative result. Two dusk emergence surveys during the appropriate period. Surveys should be evenly spread throughout the season with a minimum of at least 3 weeks apart. Should a roost be confirmed further roost characterisation surveys be required.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer period of time due to their size, shelter, protection, conditions, and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	At least three nocturnal presence / absence surveys required to give confidence in a negative result. Surveys should be evenly spread throughout the season with a minimum of at least 3 weeks apart.
Confirmed Roost	Evidence of roosting bats in the form of live or dead bats, droppings, urine staining, mammalian fur oil staining etc.	At least three nocturnal surveys to ascertain the status of the roost during appropriate survey period. Surveys should be evenly spread throughout the season with a minimum of at least 3 weeks apart.

Foraging / Commuting Habitat

3.19 The potential for the Site and immediate surrounds to support foraging and commuting bats was also assessed, with particular regard being given to the presence of continuous treelines providing good connectivity in the landscape, and the presence of varied habitat such as scrub, woodland, grassland and open water in the vicinity.

Great Crested Newt (GCN) *Triturus cristatus*

Aquatic Habitat

3.20 OS mapping and online aerial imagery were analysed for the presence of on and off-site water bodies within 500m of the application Site in accordance with English Nature (archived) guidance[18] as referenced by NRW.

Terrestrial Habitat

3.21 An assessment of the suitability of the terrestrial habitats within the Site to support GCN was completed within the subject Site. Suitable terrestrial habitat includes shelter habitat such as scrub and rank vegetation and habitat that could provide suitable hibernation sites such as rubble piles, tussock grassland and compost heaps.

Reptiles

3.22 An assessment of the suitability of the habitats present to support common reptile species was completed at the time of the habitat survey. This involved a review of habitats and habitat structure suitable for the shelter of reptiles such as areas of scrub and woodpiles, grassland with well developed, varied structure; and also, the appropriate juxtaposition of areas suitable for basking shelter and forage/hunting. This assessment was based on the methodology detailed in the Herpetofauna Workers Manual (Gent and Gibson, 1998)[19], and Froglife Advice Sheet 10 – Reptile Survey (Froglife 1999)[20].

Other species

3.23 Any sightings, evidence of or suitable habitats for other protected fauna, local Biodiversity Action Plan (BAP) species or otherwise notable species was recorded during the survey.

Survey Limitations

3.24 The habitat survey was undertaken just outside the recommended season. Furthermore, not all habitats could be surveyed safely specifically those associated with the railway embankments. These areas were viewed from the railway bridge with binoculars. However, given the habitats on site it is considered that enough information was gathered to broadly classify the habitats as such no limitations are anticipated

IMPACT ASSESSMENT METHODOLOGY

Importance

3.25 Ecological features are those that are considered to be important and potentially affected by the Proposed Development. Importance may relate, for example, to the quality or

[18] English Nature. Great Crested Newt Mitigation Guidelines. August 2001
[19] Gent, A.H., & Gibson, S.D., *eds* 1998. *Herpetofauna Workers' Manual*. Peterborough, joint Nature Conservation Committee.
[20] Froglife 1999. Froglife Advice Sheet 10: Reptile Survey. Froglife, London

extent of designated sites or habitats, to habitat/species rarity, to the extent to which they are threatened throughout their range, or to their rate of decline (CIEEM 2024)[21].

Geographical Context

3.26 The importance of an ecological feature is considered within a defined geographical context. For the purposes of the assessment this is:

- International (European)
- National (United Kingdom)
- Regional (North Wales)
- County (County Borough of Wrexham)
- Local (Wrexham)

3.27 The assessment of the importance of the ecological features and the potential likelihood of an effect of the Proposed Development will identify which ecological features could be significantly affected by the Proposed Development. Only these features will be taken forward for further assessment.

3.28 Where further surveys are required to determine whether an effect would be significant, the precautionary principle will be applied, and a significant effect assumed.

Further Assessment

Significance

3.29 In order to assess the significance of effects, Important Ecological Features (IEFs) that could potentially be affected by the development have been identified and described and the potential effects quantified using a range of characteristics:

- Positive / negative
- Extent
- Magnitude
- Duration
- Frequency / timing
- Reversibility

3.30 For the purposes of this assessment, a 'significant effect' is an effect that either supports or undermines biodiversity conservation objectives for IEFs or for biodiversity in general. Conservation objectives may be specific (e.g., for a designated site) or broad (e.g.,

[21] CIEEM (2024) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.3. Chartered Institute of Ecology and Environmental Management, Winchester September 2024.

national / local nature conservation policy) or more wide-ranging (enhancement of biodiversity)[22].

Mitigation, Compensation, and Enhancement

3.31 Where significant effects have been identified, the mitigation hierarchy has been considered: avoiding significant effects where possible; applying mitigation measures to minimise unavoidable significant effects; and compensating for any remaining significant effects.

3.32 The assessment will include mitigation, compensation and enhancements that are proposed.

3.33 Biodiversity Net Gain (BNG) requires that habitats for wildlife are left in a measurably better state than they were prior to development. An assessment of pre and post development habitats in the Site are provided in the Biodiversity Impact Assessment Report (Futures Ecology Ltd., April 202 FE500 BIA01). Enhancements which are proposed in relation to BNG are not taken into account in the assessment of effects as part of this EcIA.

Residual Effects

3.34 Upon completion of the above, residual significant effects will then be identified. It is then only necessary to assess and report significant residual effects (those that remain after mitigation measures have been considered).

Cumulative Effects

3.35 Consideration is given to the effects that may arise cumulatively from the Proposed Development in combination with other plans and projects proposed/consented but not yet built and operational.

[22] CIEEM (2024) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.3. Chartered Institute of Ecology and Environmental Management, Winchester September 2024.

4.0 LEGISLATION, PLANNING POLICY AND GUIDANCE

4.1 The policy and guidance framework for nature conservation is provided by various national, regional, and local planning policies as outlined below, with further details, as necessary, within relevant subsequent sections.

4.2 The following legislation and European Directives afford protection to wildlife and have been used to inform this assessment:

- The Environment Act 2021[23];
- The Conservation of Habitats & Species Regulations 2017 (as amended)[24] (The Habitats Regulations);
- The EC Habitats Directive (Directive 92/43/EEC)[25] as translated into UK law by The Habitats Regulations;
- The EC Birds Directive (Directive 79/409/EEC)[26]; as translated into UK law by The Habitats Regulations;
- Wildlife and Countryside Act 1981 (as amended) (WCA)[27];
- Environment (Wales) Act 2016;
- The Wild Mammals (Protection Act 1996) (as amended)[28];
- Invasive Alien Species (Enforcement and Permitting) Order 2019[29];
- The Protection of Badgers Act 1992[30]; and
- The Hedgerow Regulations 1997[31].

National Planning Policy

4.3 Planning Policy Wales (PPW) (Welsh Government 2024)[32] sets out the Government's planning policies for Wales and how these should be applied within the planning system. It provides a framework for councils to produce local plans and determine planning applications in order to achieve more sustainable developments. Chapter 6 Distinctive and Natural Places covers biodiversity with key commitments of relevance to this application include;

- Green Infrastructure,
- Biodiversity and Ecological Networks
- Biodiversity and Resilience of Ecosystems
- Designated Sites

[23] https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted
[24] HMSO. The Conservation of Habitats and Species Regulations 2017 (as amended) - No.1012
[25] EC (1992) Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (The EC Habitats Directive).
[26] EC (1979), Council Directive 79/409/EEC on the Conservation of wild birds (EC Birds Directive).
[27] HMSO. The Wildlife and Countryside Act 1981 (as amended).
[28] https://www.legislation.gov.uk/ukpga/1996/3/contents
[29] https://www.legislation.gov.uk/uksi/2019/527/contents
[30] HMSO. The Protection of Badgers Act 1992 (as amended).
[31] [31] HMSO. The Hedgerow Regulations Act 1997
[32] Welsh Government (2024) Planning Policy Wales Edition 12 February 2024 accessed March 2025 https://www.gov.wales/sites/default/files/publications/2024-07/planning-policy-wales-edition-12.pdf

- Maintaining and Enhancing Biodiversity
- Protected Species
- Trees, Woodland and Hedgerows

Local Planning Policy

4.4 Within Wrexham all planning decisions are expected to be based on the Wrexham Local Development Plan (LDP) 2 2013 to 2028 (Wrexham Borough Council, 2023)[33] however at the time of writing was not available to view.

Local Biodiversity Action Plan

4.5 Local BAPs are a key element for securing the requirements of the NPPF at a local level, consequently this assessment has taken due consideration of the priority habitats and species within The Wrexham Local Biodiversity Action Plan.

Other guidance

Birds of Conservation Concern

4.6 Leading governmental and non-governmental conservation organisations in the UK have reviewed the population status of 245 bird species regularly found in Britain and, using standardised criteria, have assessed and assigned all bird species onto lists of conservation concern[34].

4.7 Birds are placed into one of three lists - Red, Amber or Green and although these listings offer no further legal protection, they are meant to guide conservation action for the individual species. The listings reflect an individual species' global and European conservation status as well as that within the UK and additionally measure the importance of the UK population in international terms

[33] Wrexham Borough Council (2023) Wrexham Local Development Plan 2013-2028 accessed March 2025 https://wrexham-consult.objective.co.uk/portal/

[34] Stanbury *et a*l (2021), The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114, 723-747. https://britishbirds.co.uk/sites/default/files/BB_Dec21-BoCC5-IUCN2.pdf

5.0 RESULTS

DESK STUDY

5.1 A summary of relevant information provided by third party consultees is provided below. The original data has not been included in this report and a summary of the relevant findings is provided upon Figure 1.

Statutory Designated Sites

5.2 No internationally designated sites occur within the Site boundary. Four internationally designated sites occur within 10km of the Site boundary. Further details regarding the sites' locations and qualifying features are provided in Table 3 below.

5.3 No national or regionally important statutory sites occur within the Site. One site of national importance with a statutory designation was located within 2km of the site boundary: Gatewen Marsh SSSI is located 785m west of the Site boundary. Further details regarding the site's location and qualifying features are provided in Table 3 below.

5.4 No sites of local importance with a statutory designation were located within Site or within 1km of the Site boundary.

Table 3 – Summary Statutory Sites Located Within Relevant Zones Interest to the Application Site.

Site name	Designation	Proximity to site (approximate)	Description
Johnstown Newt Site	SAC (International)	3.9km South (S)	Composed of two post-industrial sites where coal and clay have been extracted. The population of great crested newts *Triturus cristatus* is one of the largest known in Great Britain.
Berwyn and South Clwyd Mountains / Berwyn a Mynuddoedd de Clwyd	SAC (International)	5.7km West (W)	Berwyn contains the largest stands of upland European dry heath in Wales. The dry heath is characteristic of Berwyn's more easterly location and less oceanic climate than the other major Welsh uplands and consists principally of NVC type H12 *Calluna vulgaris – Vaccinium myrtillus* heath, with frequent crowberry *Empetrum nigrum* and occasional cowberry *Vaccinium vitis-idaea*. Berwyn supports the most extensive tract of near-natural blanket bog in Wales.
River Dee and Bala Lake / Afon Dyfrdwy a Llyn Tegid	SAC (International)	7km South-East (SE)	Watercourses of plain to montane levels with *Ranunculion clutianis* and Calliticho-Batrachion vegetation, also supporting Atlantic salmon *Salmo salar,* and Flaoting water-plantain *Luronium nataans.*
Midland Meres and Mosses Phase 2	Ramsar (International)	3.9km North-East (NE)	A diverse range of habitats from open water to raised bog' and the presence of a number of rare plants and invertebrates. Elsewhere, it describes

Site name	Designation	Proximity to site (approximate)	Description
			the entire Ramsar site as comprising open water (meres) and their associated fringing habitats (for example, reed swamps, fen, carr and damp pasture) and a smaller number of nutrient poor peat bogs (mosses).
Gatewen Marsh	SSSI (National)	785m West (W)	An area of "southern mesotrophic mires" wetland type. The marsh is unusual in containing substantial stands of Great Reedmace Typha latifolia in shallow water with Brooklime *Veronica beccabunga*, Water Plantain *Alisma plantago-aguatica* and Bottle Sedge Carex strata.

Non-Statutory Designated Sites

5.5 No sites of local importance with a non-statutory designation occur within the site or within 1km of the site boundary.

Ancient Woodland and Trees

5.6 No ancient woodland parcels occur within the site or within 1km of the site. Neither do any notable, veteran or ancient trees.

Habitats of Principal Importance (HPI)

5.7 Three parcels of traditional orchard are located within 1km of the application site boundary, the nearest parcel being 520m north west.

5.8 HPIs represent an IEF of importance at a **Local** level and will be considered further in this assessment.

Protected / Notable Species Records

5.9 Records of protected and notable species provided by desk study consultees are provided in Table 4 below. The species records have been filtered to comprise relevant protected and / or notable species within 1km (and bats within 2km) of the survey area. The locations are shown on Figure 1.

Table 4 – Summary of Relevant Protected and Notable Species Records

Species	Scientific Name	Conservation Status	Total No. of Records	Location / Minimum distance of records from site boundary (m)	Grid ref. accuracy of nearest record
Bat species					
Brown long-eared bat	*Plecotus auritus*	WCA (Sch5), S7, Regs (Sch2)	Roost: 0 Field record: 5 Total: 5	Roost: N/A Field record: 1580m NW	Roost: N/A Field record: 1km
Common pipistrelle	*Pipistrellus pipistrellus*	WCA (Sch5), Regs (Sch2)	Roost: 0 Field record: 38 Total: 38	Roost: N/A Field record: 431m NW	Roost: N/A Field record: 100m
Daubenton's bat	*Myotis daubentonii*	WCA (Sch5), Regs (Sch2)	Roost: 0 Field record: 2 Total: 2	Roost: N/A Field record: 1750m South-West (SW)	Roost: N/A Field record: 10m
Lesser horseshoe bat	*Rhinolophus hipposideros*	WCA (Sch5), S7, Regs (Sch2)	Roost: 0 Field record: 5 Total: 5	Roost: N/A Field record: 995m S	Roost: N/A Field record: 10m
Long-eared bat species	*Plecotus spp.*	WCA (Sch5), Regs (Sch2)	Roost: 0 Field record: 3 Total: 3	Roost: N/A Field record: 1727m SW	Roost: N/A Field record: 10m
Myotis bat species	*Myotis spp.*	WCA (Sch5), S7, Regs (Sch2)	Roost: 0 Field record: 10 Total: 10	Roost: N/A Field record: 1157m S	Roost: N/A Field record: 10m
Natterer's bat	*Myotis nattereri*	WCA (Sch5), Regs (Sch2)	Roost: 0 Field record: 1 Total: 1	Roost: N/A Field record: 1763m SW	Roost: N/A Field record: 10m
Noctule bat	*Nyctalus noctula*	WCA (Sch5), S7, Regs (Sch2)	Roost: 0 Field record: 10 Total: 10	Roost: N/A Field record: 568m East (E)	Roost: N/A Field record: 10m
Pipistrelle bat species	*Pipistrellus spp.*	WCA (Sch5), Regs (Sch2)	Roost: 0 Field record: 4 Total: 4	Roost: N/A Field record: 1185m SW	Roost: N/A Field record: 100m
Soprano pipistrelle	*Pipistrellus pygmaeus*	WCA (Sch5), S7, Regs (Sch2)	Roost: 0 Field record: 17 Total: 17	Roost: N/A Field record: 1157m S	Roost: N/A Field record: 10m
Whiskered bat	*Myotis mystacinus*	WCA (Sch5), Regs (Sch2)	Roost: 0 Field record: 1 Total: 1	Roost: N/A Field record: 1750m SW	Roost: N/A Field record: 10m
Unidentified bat species	-	WCA (Sch5), Regs (Sch2)	Roost: 0 Field record: 14 Total: 14	Roost: N/A Field record: 176m W	Roost: N/A Field record: 100m
Other mammal species					
West European hedgehog	*Erinaceus europaeus*	S7	34	143m NW	100m
Otter	*Lutra lutra*	WCA (Sch5), S7, Regs (Sch2)	2	539m W	100m
Bird species					

Black-headed gull	*Chroicocephalus ridibundus*	BoCC (Amber)	7	On site	1m
Brambling	*Fringilla montifringilla*	BoCC (Green), WCA (Sch1_part1)	1	633m NE	1km
Bullfinch	*Pyrrhula pyrrhula*	BoCC (Amber), S7	1	On site	100m
Common gull	*Larus canus*	BoCC (Red)	3	490m SE	1km
Dipper	*Cinclus cinclus*	BoCC (Amber)	7	490m SE	1km
Dunlin	*Calidris alpina*				
Dunnock	*Prunella modularis*	BoCC (Amber), S7	9	8m S	100m
Fieldfare	*Turdus pilaris*	BoCC (Red), WCA (Sch1_part1)	4	490m SE	1km
Goldcrest	*Regulus regulus*	BoCC (Green)	2	490m SE	1km
Great black-backed gull	*Larus marinus*	BoCC (Red)	1	490m SE	1km
Green woodpecker	*Picus viridis*	BoCC (Green)	1	633m NE	1km
Greenfinch	*Chloris chloris*	BoCC (Red)	4	490m SE	1km
Grey wagtail	*Motacilla cinerea*	BoCC (Amber)	5	490m SE	1km
Herring gull	*Larus argentatus*	BoCC (Red), S7	15	On site	100m
Hobby	*Falco subbuteo*	BoCC (Green), WCA (Sch1_part1)	1	490m SE	1km
House martin	*Delichon urbicum*	BoCC (Red)	1	490m SE	1km
House sparrow	*Passer domesticus*	BoCC (Red), S7	11	On site	100m
Iceland gull	*Larus glaucoides*	BoCC (Amber)	2	633m NE	1km
Kestrel	*Falco tinnunculus*	BoCC (Amber)	5	147m N	100m
Kingfisher	*Alcedo atthis*	BoCC (Green), WCA (Sch1_part1)	2	505m SW	1km
Lesser black-backed gull	*Larus fuscus*	BoCC (Amber)	10	8m S	100m
Lesser redpoll	*Acanthis cabaret*	BoCC (Red), S7	2	490m SE	1km
Linnet	*Linaria cannabina*	BoCC (Red), S7	1	633m NE	1km
Mallard	*Anas platyrhynchos*	BoCC (Amber)	4	295m NW	100m
Meadow pipit	*Anthus pratensis*	BoCC (Amber)	1	490m SE	1km

Mistle thrush	*Turdus viscivorus*	BoCC (Red)	4	490m SE	1km
Moorhen	*Gallinula chloropus*	BoCC (Amber)	3	434m W	100m
Peregrine	*Falco peregrinus*	BoCC (Green), WCA (Sch1_part1)	4	490m SE	1km
Pink-footed goose	*Anser brachyrhynchus*	BoCC (Amber)	1	633m NE	1km
Red kite	*Milvus milvus*	BoCC (Green), WCA (Sch1_part1; Sch1a)	2	633m NE	1km
Redstart	*Phoenicurus phoenicurus*	BoCC (Amber)	1	505m SW	1km
Redwing	*Turdus iliacus*	BoCC (Amber), WCA (Sch1_part1)	4	490m SE	1km
Reed bunting	*Emberiza schoeniclus*	BoCC (Amber), S7	2	633m NE	1km
Rook	*Corvus frugilegus*	BoCC (Amber)	2	633m NE	1km
Snipe	*Gallinago gallinago*	BoCC (Amber)	1	633m NE	1km
Song thrush	*Turdus philomelos*	BoCC (Amber), S7	3	490m SE	1km
Sparrowhawk	*Accipiter nisus*	BoCC (Amber)	6	95m W	100m
Spotted flycatcher	*Muscicapa striata*	BoCC (Red), S7	3	490m SE	1km
Starling	*Sturnus vulgaris*	BoCC (Red), S7	7	295m N	100m
Stock dove	*Columba oenas*	BoCC (Amber)	1	490m SE	1km
Swift	*Apus apus*	BoCC (Red)	31	289m NE	100m
Tawny owl	*Strix aluco*	BoCC (Amber)	2	490m SE	1km
Whitethroat	*Curruca communis*	BoCC (Amber)	3	505m SW	1km
Willow warbler	*Phylloscopus trochilus*	BoCC (Amber)	1	633m NE	1km
Woodpigeon	*Columba palumbus*	BoCC (Amber)	14	On site	100m
Wren	*Troglodytes troglodytes*	BoCC (Amber)	6	490m SE	1km
Reptile species					
Common lizard	*Zootoca vivipara*	WCA (Sch5), S7	2	158m S	1m

BASELINE HABITATS

5.10 The Site comprised a collection of buildings of varying ages interspersed with areas of hardstanding, compacted gravel and formal landscaping. Refer to Figure 2 for a plan of the habitats present as well as associated target notes and Appendix A for the botanical species list recorded.

Hardstanding & Built Structures (Developed land; sealed surface: buildings (u1b5) and other developed land (u1b6 82)

5.11 The majority of the site comprised buildings and areas of hardstanding. Wrexham Station is within the Site boundary along with platforms, railway line and car parking. A former builders merchants with materials yard (currently vacant) as well as Girl Guides / Scouts facilities with associated car parking were also present. A large area of compacted gravel is also present in the centre of Site.

5.12 These habitats would not be considered an IEF and as such they will not be subject to further assessment.

Photograph 1: Looking north across the site showing an of carparking associated with Wrexham Station (28.01.2025).

Photograph 2: Looking south east cross the site showing an of carparking associated with Wrexham Station (28.01.2025).

Photograph 3: Looking east cross the site showing an area of carparking and the Girl Guide / Scout facilities in the foreground (28.01.2025).

Photograph 4: Looking north from the railway bridge on Mold Road (28.01.2025)

Photograph 5: Section of hardstanding from a PRoW to Site from Grosvenor Gardens (24.05.21).

Photograph 6: Block paved carpark associated with timber merchants (24.05.21).

Ephemeral / Short Perennial (Sparsely vegetated urban land u1f; ephemeral 81)

5.13 Two areas of ephemeral / short perennial vegetation had begun to colonise over two areas of gravel / hardstanding.

5.14 In the central area of Site was a vacant area of gravel and broken substrate which is fenced off (Photograph 9). Towards the peripheries of the substrate, vegetation had begun to colonise. The area could only be viewed from a distance and appeared typical of early successional communities. It was apparent that moss species dominated with occasional groundsel *Senecio vulgaris*, prickly sow thistle and colts foot *Tussilago farfara*.

5.15 A further narrow strip of vegetation had begun to colonise on a pathway that was also fenced off (Photograph 10). Again, moss dominated the assemblage with occasional cock's foot, cleavers and creeping thistle *Cirsium arvense*. Other species recorded rarely included shining cranes bill *Geranium lucidum*, common sow thistle *Sonchus oleraceus*, red dead nettle *Lamium purpureum*, ribwort plantain *Plantago lanceolata*, dandelion and ground ivy. Saplings of sycamore *Acer pseudoplatanus* and buddleia *Buddleja davidii* were also scattered rarely.

5.16 The habitat was of limited botanical / structural diversity and comprised common and widespread species with little to no conservation value. As such, this feature is not considered an IEF in the context of this assessment and will not be subject to further assessment in this report.

Photograph 9: Central area of Site showing some colonising ephemeral vegetation in the background (28.01.2025).

Photograph 10: Central area of Site showing ephemeral vegetation in the background (28.01.2025).

Improved Grassland (Modified grassland; g4)

5.17 Several small areas of improved grassland strips were scattered across the site. All were regularly mown and managed for amenity value.

5.18 A short narrow section of improved grassland behind a short retaining wall is present along a public right of way. At the time of survey, the sward was c.5cm high (M1) (Photograph 7). The assemblage was dominated by grassland species with very few forbs recorded.

5.19 The composition was dominated by perennial rye grass *Lolium perenne* with frequent cock's foot *Dactylis glomerata* and rare red fescue *Festuca rubra*. Herbaceous forbs were limited to occasional common dandelion *Taraxacum officinale* agg. and cleavers *Galium aparine* with prickly sow thistle *Sonchus asper* and common nettle *Urtica dioica* recorded rarely. Beneath the scattered trees ground ivy *Glechoma hederacea* and ivy *Helix hedera* was recorded rarely.

5.20 A further small area was present beneath a line of trees on an embankment (M2) (Photograph 8). The sward was longer c.30cm but the assemblage recorded still suggested regular management. The composition was dominated by grass species with more diversity of herbaceous forbs than recorded elsewhere on Site however the frequency and distribution was indicative of modified grassland. Perennial rye grass was recorded abundantly with occasional cock's foot, annual meadow grass *Poa annua*, and red fescue.

5.21 Herbaceous forbs comprised occasional creeping buttercup *Ranunculus repens*, dandelion and ribwort plantain *Plantago lanceolata*. Beneath the trees the composition changed to occasional yellow avens *Geum aleppicum* and ivy. Further species recorded rarely included sheep sorrel *Rumex acetosella*, cleavers with locally frequent for-get-me-not *Myosotis* spp. and yarrow *Achillea millefolium*.

5.22 The habitats were of limited botanical / structural diversity and comprised common and widespread species with little to no conservation value. As such, improved grassland is not considered an IEF in the context of this assessment and will not be subject to further assessment in this report.

Photograph 7: Narrow strip of improved grassland adjacent PROW (M1) (28.01.2025).

Photograph 8: Narrow strip of improved grassland on an embankment (M2) (28.01.2025).

Introduced Shrub (847)

5.23 Small areas of formal landscaping were present in the southern extent of Site in association with the carparking and pedestrian access to the station platform from Mold Road.

5.24 The planting bed within the carpark was dominated by non-native species and interspersed with small areas of modified / improved grassland (IS1) (Photograph 11). Species recorded comprised buddleia, barberry species *Berberis* spp., willow-leaved cotoneaster *Cotoneaster salicifolius*, aurustinus *Viburnum tinus*, silverberry *Elaegnus* spp., sycamore and common hawthorn *Crataegus monogyna*.

5.25 This habitat was of limited structural / botanical diversity and extent, and consequently, represented negligible nature conservation value. As such, this habitat is not considered to be an IEF in the context of this assessment and will not be subject to further assessment.

Photograph 11: Formal planting bed in western extent of carpark (IS1) (28.01.2025).

Dense / Continuous Scrub (Mixed Scrub; h3h)

5.26 A narrow stand of scrub (S1) was present between building B4 and the area of gravel in the central area of site (photograph 12). The species recorded included abundant ash *Fraxinus excelsior* saplings and bramble with occasional sycamore and common hawthorn. A further small area of scrub was present to the rear of B5 that extends beyond the boundary. Species present comprising abundant buddleia and locally abundant ivy with frequent silver birch *Betula pendula* and grey willow *Salix cinerea.*

5.27 This habitat feature is not listed as priority habitat in the local biodiversity action plan (Wrexham LBAP)[35] and is of a limited extent. However, it has inherent value to wildlife, including (where present) birds, mammals, reptiles, and amphibians and therefore has been considered to represent an IEF of value at **Site** level.

Photograph 12: Showing S1

Photograph 13: Showing S2

Broadleaved trees (Other broadleaved woodland w1g 33; scattered 32)

5.28 Both treelines and individually scattered trees were recorded across the southern extent of Site (Photographs 14 – 17). The trees covered all ages classes and were all generally in good condition. A mixture of native and non-native species were present.

5.29 A total of thirteen trees were recorded in association with tree line TL1 comprising wild cherry *Prunus avium*, common hawthorn, sycamore and common ash.

5.30 Further trees, forming part of the formal landscaping, were scattered at the peripheries of the railway station and public right of way (PRoW). Species present comprised silver birch and common beech *Fagus sylvatica*. To the rear of B1 and B2 were scattered self set, immature specimens of common ash, sycamore and buddleia.

5.31 The trees provide opportunities for birds and other wildlife. As such, the trees are considered to represent an IEF and important at **Local** level and will be taken through for further consideration in the impact assessment.

[35] Wrexham Biodiversity Group (2009) Wrexham Biodiversity Action Plant accessed 01/04/2025 https://www.yumpu.com/en/document/read/33031427/biodiversity-in-wrexham-wrexham-county-borough-council

Photograph 14: Showing TL1

Photograph 15: Trees associated with PRoW

Photograph 16: Scattered self-set trees to the rear of B1 and B2

Photograph 17: Dense shrub (IS3) (28.01.2025).

Badger

5.32 From the desk study, records of a known sett as well as records of live badgers were provided within 1km of the Site boundary.

5.33 No evidence of badger activity was observed during the survey occasions. Furthermore, no habitats were present that could provide a resource for this species especially sett construction.

5.34 As such, badger are not considered to pose a constraint to the re-development of this site and are not an IEF in the context of this assessment.

Bats

5.35 No bat records were provided from within the Site, however, records of a varied bat assemblage were provided by the local records office from within 2km of the Site. Species comprised brown long-eared, common pipistrelle, Daubenton's, lesser horseshoe, natterer's, noctule, soprano pipistrelle, whiskered as well as species identified to genus

level only. None of the records pertained to known roost locations but were species recorded in flight.

Roosts – Buildings & Trees

Buildings

5.36 An inspection of the exteriors of the buildings (B1-B6) within the redline was undertaken. Some of the structures were in active use and access could not be arranged to view the internal areas.

5.37 A full description of the buildings' construction, potential access points and bat roosting habitat and photographs are provided in Appendix C. A plan showing the layout of the buildings and references are shown in Figure 2. Photographs showing a range of Potential Roost Features (PRFs) are shown in Appendix D.

5.38 In summary no evidence of recent occupation by bats was observed at the time of survey where access was possible. The buildings were classified according to the level of potential roost features (PRFs) found in association. The table below provides a summary of the classification in relation to each of the buildings.

Table 5 – Summary of Bat Roost Potential Associated with the Buildings

Building Reference, see Figure 2	Bat Roosting Potential
B1	Moderate
B2	Low
B3a	High
B3b	High
B3a	Negligible
B4	Negligible
B5a	Moderate
B5b	Moderate
B6	Negligible

5.39 Buildings B1 and B2 are classified as having moderate and low bat roosting potential respectively and, as such, the presence of a bat roost cannot be ruled out at this stage. Therefore, B1 and B2 will be subject to further survey work to ascertain presence or likely absence of a bat roost.

5.40 Two nocturnal bat surveys will be undertaken on B1 and one undertaken on B2 in line with current survey guidance (Collins, 2023)[36] which will commence May 2026. The results including an evaluation of the importance of this IEF (where present), impact assessment, mitigation and compensation strategy should a roost be confirmed will be provided in an addendum Bat Report.

[36] Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologist: Good practice Guidelines (4th edition), The Bat Conservation Trust, London

5.41 The remaining buildings are unaffected by the current proposals however B3a, B3b and B5 (a and b) do provide potential roosting habitat. Given that the status of these features are not known at this time they are considered to represent an IEF in terms of bat roosting habitat of importance at least at a **Local** level.

5.42 The remaining buildings B3c and B4 were classified as negligible roost potential and therefore will not be considered further in this assessment.

Trees

5.43 One tree T1 situated close to B4 which was a common ash, had a potential roost feature (PRF) comprising a one hole 3m from ground level. A summary of the preliminary roost assessment of the trees along with photographs are provided in Appendix B.

5.44 Given that the roosting status of this tree (T1) cannot be determined these features are considered to represent an IEF in terms of bat roosting habitat of importance at a **Local** level. The tree will be subject to presence / absence surveys to determine whether a roost is present.

Foraging / Commuting Habitat

5.45 Broadleaved trees on all boundaries, with the exception of the south, provide a potential corridor for commuting and foraging bats. This habitat will provide a corridor around Site and also south along the railway line into good habitat.

5.46 Given the presence of suitable surrounding foraging and commuting habitats in the forms of gardens and parklands. Along with providing connectivity around the site and into the wider landscape. It is considered that these features are likely to represent an IEF of importance at a **Local** level.

Great Crested Newts (GCN)

5.47 From the desk study no records of GCN were provided by the local records office within 1km of the Site boundary. Furthermore, there were also no EPSL's relating to GCN.

Terrestrial Habitat

5.48 The majority of habitats within the application Site are of negligible value for GCN with the exception of the scattered scrub along the southern elevation of B4. This limited feature could provide potential commuting, foraging or shelter habitat for amphibians in the local area. However, this feature is fairly isolated within an area of dense residential and commercial development.

Aquatic Habitat

5.49 There are no waterbodies within the application Site boundary. Reference to 1:25,000 ordnance survey maps, and other publicly available information revealed three waterbodies within 500m of the application Site boundary.

5.50 An assessment has been made to determine whether the ponds have connectivity to Site and whether they would constitute an IEF with regards to GCN. Further, details regarding

the ponds, the assessment, their location and any background information is detailed in Table 6 below.

Table 6 – A review of waterbodies within 500m of the application site

Ref.	Locality	Straight Line Distance / Direction. Distance via Optimal Connective Habitat in (m)	OS Grid Ref	Connectivity to Application Site	
P1	Within new housing estate.	Straight line distance: 13m Connective Distance: 13m	SJ 33076 50765	Pond within scrub habitat immediately offsite. **Potential Constraint**	
P2	Within grassland	Straight line distance: 320m SW Connective Distance: No connectivity to site due to roads	SJ 32622 50636	Beyond upper limit of routine migration. No suitable connective habitat between site and P2 **No potential constraint.**	
P3	Ellice Way Ring Road	Straight line distance: 464m SW Connective Distance: No connectivity due to roads	SJ 32422 50708	Beyond upper limit of routine migration. No suitable connective habitat between site and P3 **No potential constraint.**	

5.51 The conclusions of Table 6 are based on an assessment using available data, whilst considering current guidance and available literature, to determine the likelihood of impacts resulting from the development proposals to GCN.

5.52 Given the suitable connective habitat between the waterbody and the application site permission was sought to undertake an eDNA assessment on P1 to determine presence or likely absence of GCN. The results of which will be provided in an addendum report.

5.53 P2 and P3 are considered to be located sufficiently distant from Site to be beyond the upper limit of routine commuting distance (Natural England, 2004[37]; Jehle, 2000[38]). Furthermore, significant barriers to potential GCN dispersal are present Site and ponds P2/P3 such as major roads, watercourses and residential / commercial development.

[37] English Nature (2004) An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt *Triturus cristatus* English Nature Research Report 576.
[38] Jehle, R., 2000. The terrestrial summer habitat of radio-tracked great crested newts *Triturus cristatus* and marbled newts *T. marmoratus*. Herpetological Journal, 10, pp. 137-142.

5.54 GCN are listed as a priority species (Environment (Wales) Act 2016, Section 7) and are a target species within the Wrexham Biodiversity Action (2003)t which is currently inaccessible. GCN are considered to be widespread within the county but have thought to have declined in recent years (NRW, 2017)[39] and as such represent an IEF of importance at a **Local** level.

Reptiles

5.55 One record of common lizard was provided by the local records office. The record relates to a siting from 2018 c.158m south west of Site associated with the railway corridor.

5.56 The Site largely represents unsuitable habitat for this species group. Limited suitable habitats comprising small areas of scrub and introduced scrub were very limited in extent and which were isolated from offsite suitable habitats and those habitats associated with the railway corridor.

5.57 Given that it is highly unlikely that reptile species are present within the application Site, reptiles do not represent a statutory constraint to the proposals and will not be considered further within this assessment.

Birds

5.58 The desk study returned numerous records of birds within a 1km search area. During the walkover survey a handful of bird species were recorded those included magpie *Pica pica*, woodpigeon *Calumba palumbus*, pied wagtail *Motacilla alba*, robin *Erithacus rubecula* and dunnock *Prunella modularis*.

5.59 Habitat at the boundaries as well as scrub associated with the railway embankments could provide a suitable resource for urban fringe species.

5.60 Given the potential for nesting opportunities offered by the site nesting birds are considered to be an IEF. As such, nesting birds will be considered further within the Impact Assessment due to the protection afforded to all wild birds while nesting, but a geographic scale of importance will not be applied and will be considered further in the assessment with importance at a **Local** level.

Summary of Ecological Features & Further Assessment Requirements

5.61 The table below provides a summary of the identified ecological features, their importance, geographical significance, potential impacts based on the most up to date Proposed Indicative Site Location Plan 18 June2025 Drawing No. (05)0010 by Stephenton Hamilton Riseley Studio , and whether the feature will be taken through for further consideration in the impact assessment.

[39] Natural Resources Wales (2017) Spatial Action Plan for Great Crested Newts in Wrexham. A manual for achieving favourable conservation status. Report No.77. accessed April 2025 https://naturalresources.wales/media/684989/report-077-spatial-action-plan-gcn-wrexham.pdf

Table 7 – Summary of Relevant Features & Further Assessment Requirements

Ecological Feature	Geographical Context	Important Ecological Feature IEF	Further Consideration
Johnstown Newt Site SAC	International	Yes	Yes
Berwyn and South Clwyd Mountains / Berwyn a Mynuddoedd de Clwyd SAC	International	Yes	Yes
River Dee and Bala Lake / Afon Dyfrdwy a Llyn Tegid SAC	International	Yes	Yes
Midland Meres and Mosses Phase 2 RAMSAR	International	Yes	Yes
Gatewen Marsh SSSI	National	Yes	Yes
Habitats of Principal Importance – Traditional Orchard	Local	Yes	Yes
Broadleaved Trees	Local	Yes	Yes
Bats – Roosts (Buildings and Trees)	Local	Yes	Yes
Bats – Foraging and Commuting	Local	Yes	Yes
Great Crested Newt (GCN)	Local	Yes	Yes
Reptiles	Local	Yes	Yes
Nesting Birds	N/A	Yes	Yes

6.0 IMPACT ASSESSMENT

PROPOSALS

6.1 The proposals comprise the demolition of the Scout and Girl Guide facilities and retaining wall to facilitate the construction of a new four storey office building. New pedestrian links are proposed from Mold Road to the station platform and a new care park in the norther extend of Site. To facilitate the development, a total of 12 trees, introduced shrub, scrub and ephemeral / short perennial will be lost. The remaining habitats incorporated into the new layout with additional tree planting, wildflower grassland and native scrub.

INTERNATIONAL & NATIONAL STATUTORY SITES

6.2 These ecological features comprise Johnstown Newt Site (SAC), Berwyn and South Clwyd Mountains / Berwyn a Mynuddoedd de Clwyd (SAC), River Dee and Bala Lake / Afon Dyfrdwy a Llyn Tegid (SAC), Midland Meres and Mosses Phase 2 (RAMSAR) and Gatewen Marsh SSSI. The SACs and RAMSAR sites are of importance at an **International** level and SSSI is of importance at a **National** level.

6.3 The Site is located within the IRZ for all the sites listed above. None of the habitats within the designated sites occur within the application site and the proposed development will not result in the loss of land associated with the designated sites. Furthermore, the habitats in site are not optimal for protected species associated with the designated sites.

6.4 The Site is not hydrologically connected to the designated sites and, as such, no impacts are anticipated as result of hydrological changes or pollution / contamination incidents relating to surface water run-off.

6.5 The GCN population associated with Johnstown SAC and Gatewen Marsh SSSI are unlikely to commute to the application site. The SAC is located c.3.9km away well above the routine commuting distance for this species.

6.6 Pollution and contamination effects during the construction phase are not anticipated as the construction area is over 50m from the designated site (IAQM, 2014)[40].

6.7 No recreational / disturbance impacts are anticipated as the proposed development will not result in an increase in visitors to the Site.

6.8 In conclusion, no impacts on the SACs, RAMSAR and SSSI are anticipated as a result of the proposals.

Mitigation Measures

6.9 None required

Residual Effect

6.10 The significance of the residual effects is considered to be **Neutral**.

[40] Institute of Air Quality Management (IAQM) (2014) Guidance on the assessment of dusk from demolition and construction Version 1.1. Published February 2014. accessed November 2023 https://iaqm.co.uk/text/guidance/construction-dust-2014.pdf

HABITATS OF PRINCIPAL IMPORTANCE (TRADITIONAL ORCHARD)

6.11 The HPIs are of importance at a **Local** level.

6.12 The proposed development will not result in the direct loss of habitats of this feature. Furthermore, there is no hydrological connection between Site and these features.

6.13 Pollution and contamination effects during the construction phase are not anticipated as the construction area is over 50m from the designated site (IAQM, 2014)[41].

6.14 No recreational / disturbance impacts are anticipated as the proposed development will not result in an increase in visitors to any publicly accessible HPI sites.

Mitigation Measures

6.15 None required

Residual Effect

6.16 The significance of the residual effects is considered to be **Neutral**.

BROADLEAVED TREES

Potential Impacts

6.17 With the exception of 12 trees, the remaining tree stock will be retained within the proposed scheme. The tree loss would lead to **not-significant adverse** effect at a **Local** level.

6.18 Construction activities may lead to impacts on retained specimens through accidental damage, root compaction or dust deposition. In severe cases this could lead to tree losses. In the absence of mitigation this would be a **not-significant adverse** effect at a **Local** level.

6.19 Direct lighting of retained trees could also lead to nocturnal species avoiding this habitat. This could lead to a **not-significant adverse** effect at a **Local** level.

Mitigation Measures

6.20 Any losses will be permanent and cannot be mitigated for.

6.21 Root protection areas will be implemented to protect the retained trees in line with document BS5837 (British Standard, 2012)[42] and pollution prevention measures will also be implemented during construction, through the adherence of best practice working methods. These measures will protect the retained trees during the construction phase.

[41] Institute of Air Quality Management (IAQM) (2014) Guidance on the assessment of dusk from demolition and construction Version 1.1. Published February 2014. accessed November 2023 https://iaqm.co.uk/text/guidance/construction-dust-2014.pdf
[42] British Standard (2005) Trees in relation to Construction https://www.rbkc.gov.uk/idoxWAM/doc/Other-1592559.pdf?extension=.pdf&id=1592559&location=Volume2&contentType=application/pdf&pageCount=1

6.22 A sympathetic lighting scheme will be implemented in accordance with BCT guidance (2018)[43], with particular avoidance of light spill upon boundary habitats.

6.23 The above must be outlined within a Construction and Environment Management Plan: Biodiversity (CEMP).

Residual Effects

6.24 The impacts to the retained trees would be **Neutral** following the mitigation outlined above.

Compensation / Enhancements

6.25 The landscaping scheme has sought to retain as much of the tree stock as possible within the proposed landscaping scheme.

6.26 In the long term this will provide an enhancement to the local area providing additional tree cover once the trees have had time to mature. This will result in a **not-significant positive** effect at a **Local** level.

BATS – POTENTIAL ROOSTS IN BUILDINGS

Potential Impacts

6.27 The Site incorporates a number of buildings within the application boundary. Proposals currently affect B1 and B2 which will be demolished to facilitate the construction of the new office buildings. The survey work is currently ongoing to assess the value of this IEF and therefore the likely impact as a result of the proposals. Should a bat roost be confirmed present the information gathered during these surveys will be used to inform an appropriate scheme for mitigation and where necessary compensation measures. The results of the surveys, impact assessment, mitigation and compensation strategy if necessary will be provided in an addendum report on the completion of the surveys (Bat Report, Futures Ecology 2024 Report Ref: FE500 BTR01 (in production).

6.28 The remaining buildings are unaffected by this phase of development. However, B3a, B3b and B5 were classified as having potential bat roosting habitat. Given that their status as an IEF is unknown at this stage they will be scoped into the impact assessment as they are at risk of negative impacts.

6.29 B3 is likely to be well lit in parts at night however, the full extent of current external lighting is unknown. As such there is potential risk of any additional lighting during the construction and post development phase to interfere with bat roosts if present. This would result in a **temporary adverse not-significant** effect at a **Local** level.

[43] BCT & Institution of Lighting Professionals (2018). Guidance Note 08/18 Bats and artificial lighting in the UK. Bats and the Built Environment series.

Mitigation Measures

6.30 During construction lighting of B5 will be avoided and lighting of areas in association with B3 that are unlit twill also be avoided during the hours of darkness.

6.31 A sympathetic lighting scheme will be implemented in accordance with BCT guidance (2018)[44], with particular avoidance of light spill onto areas of retained or proposed landscape planting or features offering bat roosting potential.

6.32 The above must be outlined within a Construction and Environment Management Plan (CEMP) and Biodiversity Enhancement Management Plan (BEMP).

BATS – POTENTIAL TREE ROOSTS, FORAGING AND COMMUTING

Potential Impacts

6.33 The Site incorporates broadleaved treelines at the boundaries that are likely to form good commuting and foraging routes for a range of bats as well as one tree which provide potential roosting habitat.

6.34 Where construction activities come in close proximity to these features, potential impacts could arise from accidental damage from tracking vehicles near to trees resulting in tree root compaction and / or damage or killing of trees resulting from pollutant spillages. Impacts such as these could ultimately result in tree loss and therefore loss of a potential bat roost (if present) or severing of commuting corridors. This could result in a **temporary** to **permanent not-significant adverse** effect at a **Local** level.

6.35 Light pollution during the construction phase on retained treelines and potential roost sites could have an impact upon wildlife in particular bats using these features. This would result in a **temporary adverse not-significant** effect at a **Local** level.

Mitigation Measures

6.36 Mitigation measures employed for retained trees in relation to damage, detailed above, will also be employed to prevent impacts to retained trees with potential roosting habitat.

6.37 A sympathetic lighting scheme will be implemented in accordance with BCT guidance (2018)[45], with particular avoidance of light spill upon boundary habitats to protect these features and maximise their value in the long term.

6.38 The above must be outlined within a Construction and Environment Management Plan (CEMP).

[44] BCT & Institution of Lighting Professionals (2018). Guidance Note 08/18 Bats and artificial lighting in the UK. Bats and the Built Environment series.
[45] BCT & Institution of Lighting Professionals (2018). Guidance Note 08/18 Bats and artificial lighting in the UK. Bats and the Built Environment series.

Residual Effect

6.39 The significance of residual effects following mitigation is considered to be **Neutral.**

Compensation / Enhancement

6.40 The scheme will provide tree planting that will provide potential cover and foraging habitat.

6.41 It is anticipated that following the creation of biodiversity net gain measures the newly created habitats will result in a significant positive effect on foraging / commuting habitats for the local population of bat species at a Local scale.

6.42 New roosting opportunities for bats should be created by installation two bat boxes either on retained trees or the Wrexham Station. Outlined below are recommended bat boxes that will be incorporated into the scheme;

- 1 x Schwegler 2FS (or similar) to be installed on a tree, and
- 1 x Schwegler 1GS Brick Bat Roost (or similar) to be installed upon a permanent structure close to the railway line.

GREAT CRESTED NEWTS (GCN)

Potential Impact

6.43 One pond (P1) is located 13m east of Site. However, with the exception the trees along part of the eastern boundary and northern boundary the majority of the Site offers a negligible resource to this species. Furthermore, the vegetated boundaries and pond offsite are also fairly isolated within an area of dense residential and commercial development with no further waterbodies close by and limited terrestrial habitats immediately surrounding P1. Should GCN be present within P1 it is considered at most to be a small population.

6.44 Given that the presence of small numbers of GCN in the wider area cannot be ruled out at this stage there is a potential impact of GCN being present during the construction phase. Excavations and stored building materials could create refuges for this species should they be present in the local area and may encourage GCN into the working area. As such, there is the potential risk of killing and injuring of GCN caught in any excavation left open overnight or GCN using spoil heaps / stored building materials as shelter habitat and subsequently being killed / injured when removed.

6.45 This would result in a **not significant adverse** effect at a **Local** level and would also constitute a breach of the legislation.

Mitigation Measures

6.46 The following precautionary working methods are recommended during the construction phase to ensure no negative impacts on GCN or other amphibians.

- Temporary amphibian fencing shall be installed around the footprint of hardstanding to prevent any ingress of GCN into the working area,

- All contractors will be given a toolbox talk in relation to GCN,
- Vegetation clearance will be undertaken in a phased manner under supervision of a suitably licensed Ecological Clerk of Works (ECoW),
- Vegetation will be strimmed / cut to a height of 150mm under supervision of ECoW. All arisings / vegetation will be removed and these areas will be left undisturbed for at least 24 hours. Therefore, areas which have been strimmed will be hand searched by the ECoW before final vegetation clearance to ground level,
- Excavations will be backfilled before nightfall wherever feasible. If this is not possible, ramps will be created to allow any wildlife to easily exit the trench. Should any GCN be found to be present in excavations, works will not recommence until assessed by ECoW, and
- If it is suspected / confirmed that a GCN has been found, work must be stopped immediately and the situation re-assessed by the ECoW to determine whether works will require a derogation licence to facilitate the remaining works.

6.47 The above must be outlined within a Construction and Environment Management Plan (CEMP).

Residual Effect

6.48 The significance of residual effects following mitigation is considered to be Neutral.

NESTING BIRDS

Potential Impact

6.49 The proposals will result in the permanent loss of potential nesting habitat for birds. This could result in the disturbance, killing and injury nesting birds during the construction phase which would result in a breach of the Wildlife and Countryside Act 1981 (as amended).

Mitigation Measures

6.50 To comply with relevant legislation, any removal of vegetation should be timed to avoid the nesting season where possible (March to August inclusive, although dates do vary depending on the species and weather conditions). Where it is not feasible, affected areas should be checked for nests in advance by an experienced ecologist. Any active nests identified should be left with a minimum buffer of 5m to be identified by the ecologist, until such time as all birds have fledged.

Residual Effect

6.51 The significance of the residual effects following mitigation is considered to be **Neutral**.

Compensation / Enhancements

6.52 Landscaping proposal comprise the provision of new tree planting, wildflower grassland and native scrub. These new habitats once established will further in nesting and foraging opportunities for the local bird population.

6.53 Nest boxes will be provided on retained trees to provide nesting habitat while compensatory habitats are being established. Outlined below are recommended nest boxes that will be incorporated into the scheme;

- 1 x 28mm entrance closed nest boxes to provide nesting opportunities for blue tit and great tit to be installed on retained trees. Products could comprise Schwegler 1B Bird Box
- 2 x Open-fronted nest boxes to provide nesting opportunities for blackbird, wren, song thrushes and robin. Products could comprise Woodstone Barcelona Open Nest Box
- 1 x House sparrow terrace

6.54 This will be outlined within a Biodiversity and Ecological Management Plan (BEMP).

7.0 RESIDUAL EFFECTS

7.1 Table 8 below summarises the anticipated residual effects of all IEFs.

7.2 Given the low value of habitats within the application site and implementation of the above mitigation measures, residual effects are considered to be **Neutral**. Therefore, no impacts in the mid to long term are envisaged upon any IEFs as a result of the proposals.

Table 8 – Residual Effects Table

Important Ecological Feature (Geographical Context)	Stage	Potential Impact	Nature of Effect	Mitigation & Implementation	Residual Effect after Mitigation	Compensation & Enhancement	Significance of effect after Mitigation, Compensation & Enhancement
International Statutory Sites (SACs and RAMSAR)	Construction	Within relevant IRZ. None anticipated	Neutral	None required	Neutral	None required / proposed	Neutral
National Statutory Sites (SSSI)	Construction	Within relevant IRZ. None anticipated	Neutral	None required	Neutral	None required / proposed	Neutral
HPI	Construction	Within relevant IRZ. None anticipated	Neutral	None required	Neutral	None required / proposed	Neutral
Broadleaved Trees	Construction	Some tree losses majority to be retained. Tree damage / root compaction from vehicles tracking close to trees. Pollution event causing damage to retained trees. Light pollution could affect use of IEF by crepuscular wildlife.	Temporary to Permanent, not-significant adverse effect: Local Level	Losses cannot be mitigated. Maintain RPAs as per BS5837 (British Standard, 2012) - CEMP Industry best practice pollution prevention measures – CEMP	Permanent, not-significant adverse effect: Local Level	New landscaping planting proposals.	Neutral
Broadleaved trees	Implementation	Light pollution could affect use of IEF by crepuscular wildlife.	Permanent, not-significant adverse effect: Local Level	Sympathetic lighting scheme in accordance with BCT 2018 - BEMP	Neutral	None required / proposed	Neutral

Important Ecological Feature (Geographical Context)	Stage	Potential Impact	Nature of Effect	Mitigation & Implementation	Residual Effect after Mitigation	Compensation & Enhancement	Significance of effect after Mitigation, Compensation & Enhancement
Bat – Tree Roosts / Foraging & Commuting Routes	Construction	Possible impacts to 3 trees with potential roost features and commuting / foraging routes. Impacts from damage to trees / roosts, pollution spillages. Potential for loss / damage of roosting / commuting habitat. Light pollution could affect use of IEF by foraging / commuting bats.	Temporary to Permanent, not-significant adverse effect: Local Level. Potential breach in legislation	Maintain RPAs as per BS5837 (British Standard, 2012) – Industry best practice pollution prevention measures – CEMP.	Neutral	None required / proposed	Neutral
Bat – Tree Roosts / Foraging & Commuting Routes	Implementation	Possible light pollution could affect use of IEF by bats, if present.	Permanent, not-significant adverse effect: Local	Sympathetic lighting scheme in accordance with BCT 2018 - BEMP	Neutral	4 Bat boxes on retained trees.	Neutral
Bats – Building Roosts	Construction / Implementation	Possible light pollution could affect use of IEF by roosting bats, if present. Potential for avoidance of roosting habitats during works.	Temporary, not-significant adverse effect: Local Level	Sympathetic lighting scheme in accordance with BCT 2018 – CEMP and BEMP	Neutral	None required / proposed	Neutral
Great Crested Newt	Construction	Killing/injury of GCN caught in open excavations or stored building materials within 0-250m of potential GCN ponds.	Temporary, not-significant adverse	Implementation of GCN Precautionary Working Method Statement (PWMS) – CEMP	Neutral	None required / proposed	Neutral

Important Ecological Feature (Geographical Context)	Stage	Potential Impact	Nature of Effect	Mitigation & Implementation	Residual Effect after Mitigation	Compensation & Enhancement	Significance of effect after Mitigation, Compensation & Enhancement
		Killing / injury of GCN using temporary spoil mounds..	effect: Local Level Breach of Legislation.				
Reptiles	Construction	Possible killing/injury of common lizard, if present, construction phase.	Temporary, not-significant adverse effect: Local Level Breach of Legislation.	Implementation of Reptile Precautionary Working Method Statement (PWMS) – CEMP	Neutral	None required / proposed	Neutral
Nesting Birds	Construction	Possible killing / injury and disturbance of nesting birds and / or destruction of nests / eggs during vegetation clearance operations.	Breach of Legislation.	Implementation of Birds Precautionary Working Method Statement (PWMS) – CEMP	Neutral	4 Nest Boxes	Neutral

8.0 CUMULATIVE EFFECTS

8.1 Wrexham Borough Council planning portal was reviewed for recent planning applications to make an assessment of potential cumulative effects. A small number of applications were identified from the portal primarily in relation Glyndwr University and small-scale commercial developments.

8.2 The impact assessment for the Site has determined that there will be no adverse residual effects for any identified IEF. Furthermore, in consideration of not-significant effects which might otherwise combine with not-significant effects from other developments, none are considered likely to result in any significant, in-combination effects. As such, there are no anticipated adverse cumulative effects in relation to the Site in combination with any other development.

9.0 MONITORING

9.1 Vegetation clearance may require supervision by a suitably qualified ECoW, to avoid killing and injury to nesting bird checks (if clearance is undertaken during bird breeding season), reptiles and amphibians. A post construction Site visit should be undertaken to ensure all compensation and enhancement measures are installed appropriately.

10.0 COMPENSATION & ENHANCEMENTS

10.1 In accordance the national planning policy for Wales PPW (Welsh Government 2024)[46] and The Environment Act 2021, the development should seek to enhance biodiversity and provide a net benefit.

10.2 The Impact Assessment section identified ecological enhancements that should be incorporated into the development proposal. Outlined below are further additional measures for consideration:

- New landscape planting including trees and shrubs to use native species which bear fruit and nectar.
- Installation of invertebrate boxes within new dwellings e.g., bee houses.

[46] Welsh Government (2024) Planning Policy Wales Edition 12 February 2024 accessed March 2025 https://www.gov.wales/sites/default/files/publications/2024-07/planning-policy-wales-edition-12.pdf

APPENDIX A: BOTANICAL SPECIES LIST

The habitat types were mapped within the site and a representative species list for each habitat type recorded. Species lists are not exhaustive of all flora present in each habitat type.

Common Name	Scientific Name	DAFOR
Improved Grassland / Modified g4		
Bramble	*Rubus fruticosus*	R
Annual meadow grass	*Poa annua*	O
Cock's foot	*Dactylis glomerata*	F
Common dandelion	*Taraxacum officinale agg.*	O
Common mouse-ear	*Cerastium fontanum*	O
Common nettle	*Urtica dioica*	R
Cleavers	*Galium aparine*	O
Creeping buttercup	*Ranunculus repens*	O
For-get-me-not	*Myosotis*	R
Ground ivy	*Glechoma hederacea*	R
Ivy	*Helix hedera*	R
Perennial rye grass	*Lolium perenne*	D
Prickly sow thistle	*Sonchus asper*	R
Red fescue	*Festuca Rubra*	R
Ribwort plantain	*Plantago lanceolata*	O
Sheep sorrel	*Rumex acetosella*	R
Yarrow	*Achillea millefolium*	R
Yellow avens	*Geum aleppicum*	O
Ephemeral / Short Perennial / Sparsely vegetated urban land		
Bramble	*Rubus fruticosus*	R
Cleavers	*Galium aparine*	O
Cock's foot	*Dactylis glomerata*	A
Colts foot	*Tussilago farfara*	O
Common nettle	*Urtica dioica*	R
Common sow thistle	*Sonchus oleraceus*	R
Creeping thistle	*Cirsium arvense*	O
Dandelion	*Taraxacum officinale agg.*	F
Ground ivy	*Glechoma hederacea*	R
Groundsel	*Senecio vulgaris*	O
Prickly sow thistle	*Sonchus asper*	O
Red dead nettle	*Lamium purpureum*	R
Ribwort plantain	*Plantago lanceolata*	R
Shining crane's bill	*Geranium lucidum*	R
Introduced Shrub, Scrub and Trees		
Aurustinus	*Viburnum tinus*	R
Barberry species	*Berberis spp.*	R
Buddleia	*Buddleja davidii*	F
Bramble	*Rubus fruticosus*	F
Cherry laurel	*Prunus laurocerasus*	O
Common ash	*Fraxinus excelsior*	F
Common beech	*Fagus sylvatica*	R
Common hawthorn	*Crataegus monogyna*	F
Ivy	*Helix hedera*	LF

Grey willow	*Salix cinerea*	O
Silverberry	*Elaegnus spp.*	R
Silver birch	*Betula pendula*	F
Sycamore	*Acer pseudoplatanus*	A
Wild cherry	*Prunus avium*	F
Willow-leaved cotoneaster	*Cotoneaster salicifolius*	R

DAFOR: D=dominant, A=abundant, F=frequent, O=occasional, R=Rare, L=Locally

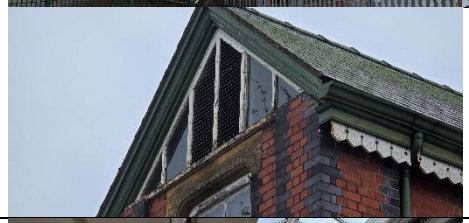
APPENDIX B: GROUND BAT TREE ASSESMENT

Tree Reference (Figure 2)	Species	PRF's	Bat Roosting Potential	
T**1**	Common ash	One hole 3m from ground level	PRF	

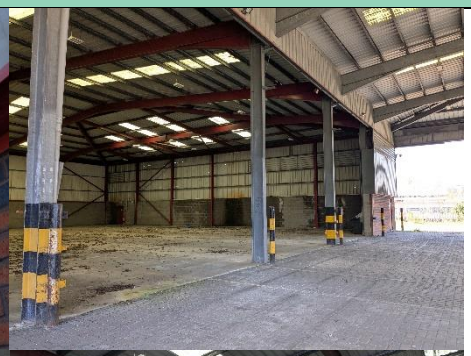
APPENDIX C: INTERNAL / EXTERNAL BAT BUILDING ASSESMENTS

Building Reference Number	Building External Description / Potential Access Points / Evidence of Occupation	Building Internal Description / Potential Roost Features / Evidence of Occupation	Roost Potential Classification: Negligible, Low, Moderate, High or Confirmed Roost	Building Photographs
B1 Girl Guides Facility	Two-storey, brick and rendered structure with flat parapet roof with timber cladded raised section. Upvc windows and panelling. **Potential Access:** Section of timber cladding missing. Small number of gaps observed at wall plate **PRF:** Gap in cladding provide access to cavity behind **Evidence:** None	Not accessed	Moderate	   **Please note few photographs were taken on the day of survey due to the presence of minors*

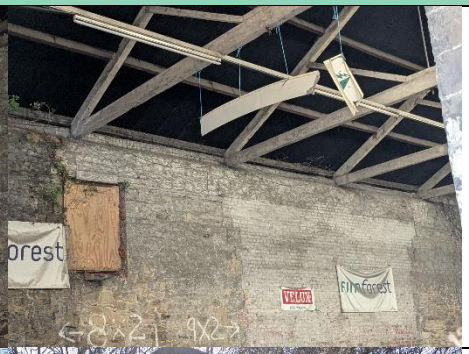
Building Reference Number	Building External Description / Potential Access Points / Evidence of Occupation	Building Internal Description / Potential Roost Features / Evidence of Occupation	Roost Potential Classification: Negligible, Low, Moderate, High or Confirmed Roost	Building Photographs
B2 Scout Facility	Two-storey, brick and rendered structure with flat parapet roof. Upvc windows and panelling. Barge board around wall plate and timber boarding on some of windows **Potential Access:** Small number of gaps behind timber boarding **PRF:** Access to small cavities behind barge board. **Evidence:** None	Not accessed	Low	 **Please note few photographs were taken on the day of survey due to the presence of minors*
B3a Wrexham Station	Single-storey, stone structure with ornate hipped roofed sections.	Not accessed	High	   

Building Reference Number	Building External Description / Potential Access Points / Evidence of Occupation	Building Internal Description / Potential Roost Features / Evidence of Occupation	Roost Potential Classification: Negligible, Low, Moderate, High or Confirmed Roost	Building Photographs
B3b	Two-storey brick and timber pedestrian bridge.	Not accessed	High	  
B3c	Glass and steal platform structures	Not accessed	Negligible	 

Building Reference Number	Building External Description / Potential Access Points / Evidence of Occupation	Building Internal Description / Potential Roost Features / Evidence of Occupation	Roost Potential Classification: Negligible, Low, Moderate, High or Confirmed Roost	Building Photographs
				
B4	Corrugated steal commercial unit on brick base. Flat corrugated steal roof with larger roller shutter doors on western elevation. **Potential Access:** Gaps around roof. **PRF:** None observed **Evidence:** None	Not accessed	Negligible	 

Building Reference Number	Building External Description / Potential Access Points / Evidence of Occupation	Building Internal Description / Potential Roost Features / Evidence of Occupation	Roost Potential Classification: Negligible, Low, Moderate, High or Confirmed Roost	Building Photographs
				   

Building Reference Number	Building External Description / Potential Access Points / Evidence of Occupation	Building Internal Description / Potential Roost Features / Evidence of Occupation	Roost Potential Classification: Negligible, Low, Moderate, High or Confirmed Roost	Building Photographs
B5a	Two-storey, brick structure with flat parapeted roof. Ornate glass sky light. Single store lean-to extension with slate roof. **Potential Access:** Missing slates on extension roof. Open/broken windows. Gaps above window boarding **PRF:** Multiple gaps observed providing access to internal areas and cavity in lean-to roof. **Evidence:** None	Not accessed	Moderate	 
B5b	Single-storey, brick and stone structure with pitched corrugated cement fibre roof. **Potential Access:** Missing pointing in stone work, gaps at roof, broken windows. Vertical cavities where joined to adjacent buildings **PRF: Evidence:** None	Not accessed	Moderate	 

Building Reference Number	Building External Description / Potential Access Points / Evidence of Occupation	Building Internal Description / Potential Roost Features / Evidence of Occupation	Roost Potential Classification: Negligible, Low, Moderate, High or Confirmed Roost	Building Photographs
				 
B6	Single-storey, brick built with a flat felted roof. **Potential Access:** No visible access points. **PRF: Evidence:** None	None	Negligible	 

APPENDIX D: POTENTIAL ROOST FEATURES

Photo 1 – Lifted roof and broken tiles and lifted flashing B3a

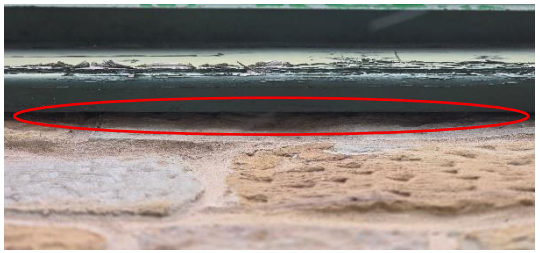


Photo 2 – Gap behind barge boards B3a

Photo 3 – Lifted flashing B3a

Photo 4 – Cavity under window lintel B1c

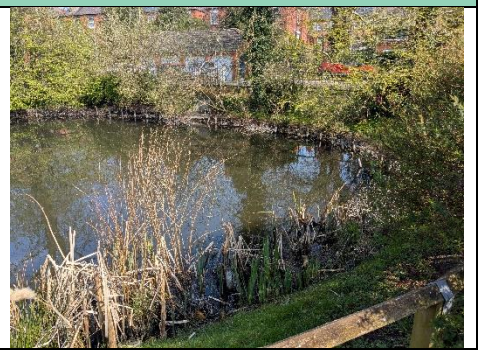
Photo 5 – Holes in external brickwork B3a

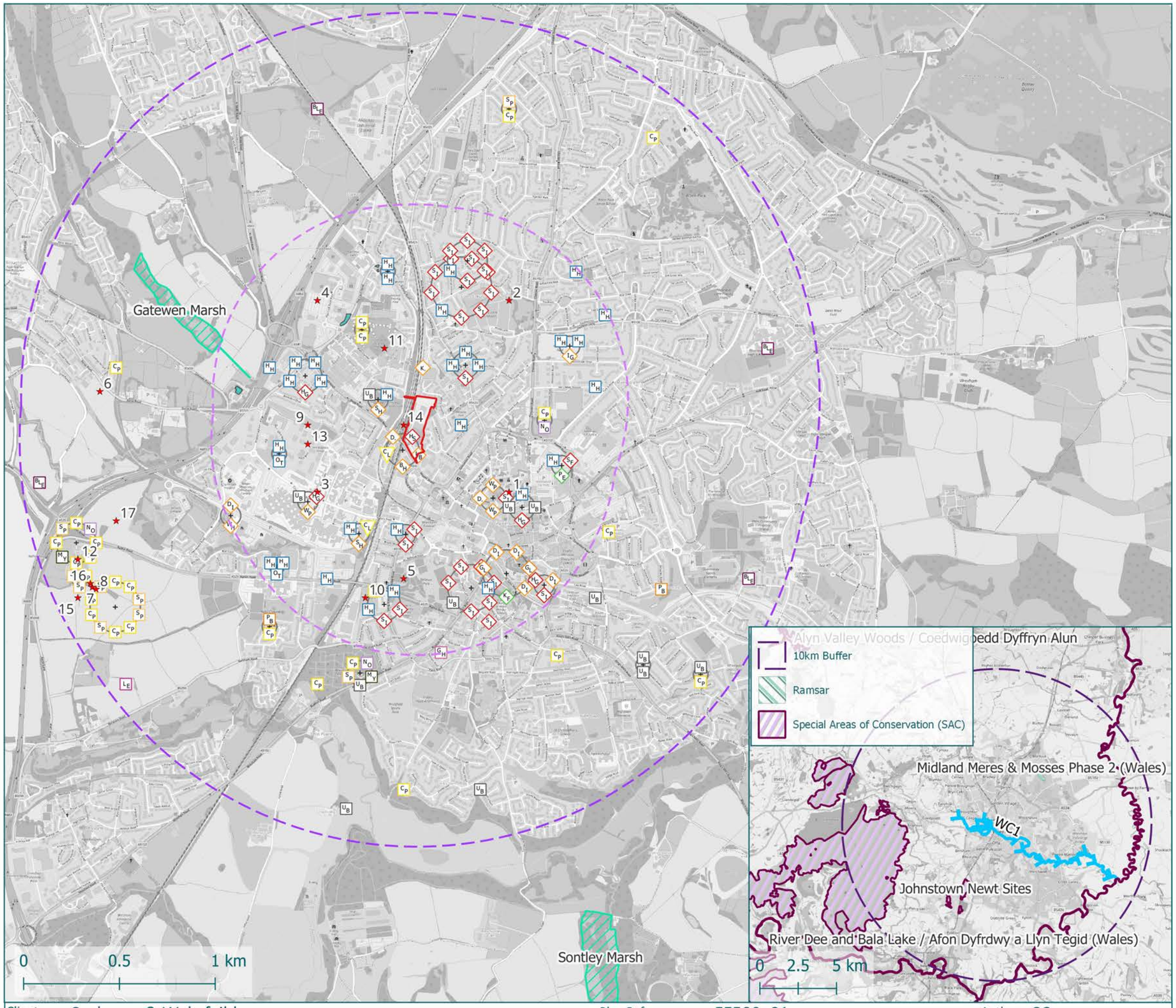
Photo 6 – Holes in external brickwork B3a

Photo 8 – Holes in external brickwork B5

Photo 9 – Holes in external brickwork B5

APPENDIX E: HABITAT SUITABILITY INDEX ASSESSMENT

Waterbody Reference	SI -1 Geographical Location	SI -2 Pond Area	SI -3 Pond Drying	SI -4 Water Quality	SI -5 Shade	SI -6 Fowl	SI -7 Fish	SI -8 Ponds	SI -9 Terrestrial Habitat	SI -10 Macrophytes	HSI score	Pond Suitability	Predicted Presence	Pond Photographs
P1	1	0.06	0.9	1	1	0.67	0.67	0.1	0.67	0.5	0.49	Below Average	0.2	



FUTURESECOLOGY
Carrwood Park, Swillington Common Farm, Selby Road, Leeds, LS15 4LG
Telephone: 01133 372185

Unit 9, The Tangent Business Hub, Weighbridge Road, Shirebrook, Mansfield, Derbyshire, NG20 8RX
Telephone: 01623 749709

Key

Site Boundary

Site Buffers

1km Buffer

2km Buffer

Designated site

Sites of Special Scientific Interest (SSSI)

Habitats of Principal Importance (HPI)

Traditional Orchard

- Common pipistrelle bat
- Soprano pipistrelle bat
- Pipistrelle bat species
- Noctule bat
- Myotis bat species
- Brown long-eared bat
- Long-eared bat species
- Lesser horseshoe bat
- Unidentified bat species
- European otter
- West European hedgehog
- Herring gull
- House sparrow
- Spotted flycatcher
- Swift
- Black-headed gull
- Dunnock
- Grey wagtail
- Iceland gull
- Kestrel
- Lesser black-backed gull
- Dipper
- Woodpigeon
- Sparrowhawk
- Common whitethroat
- Peregrine
- Kingfisher
- Common lizard

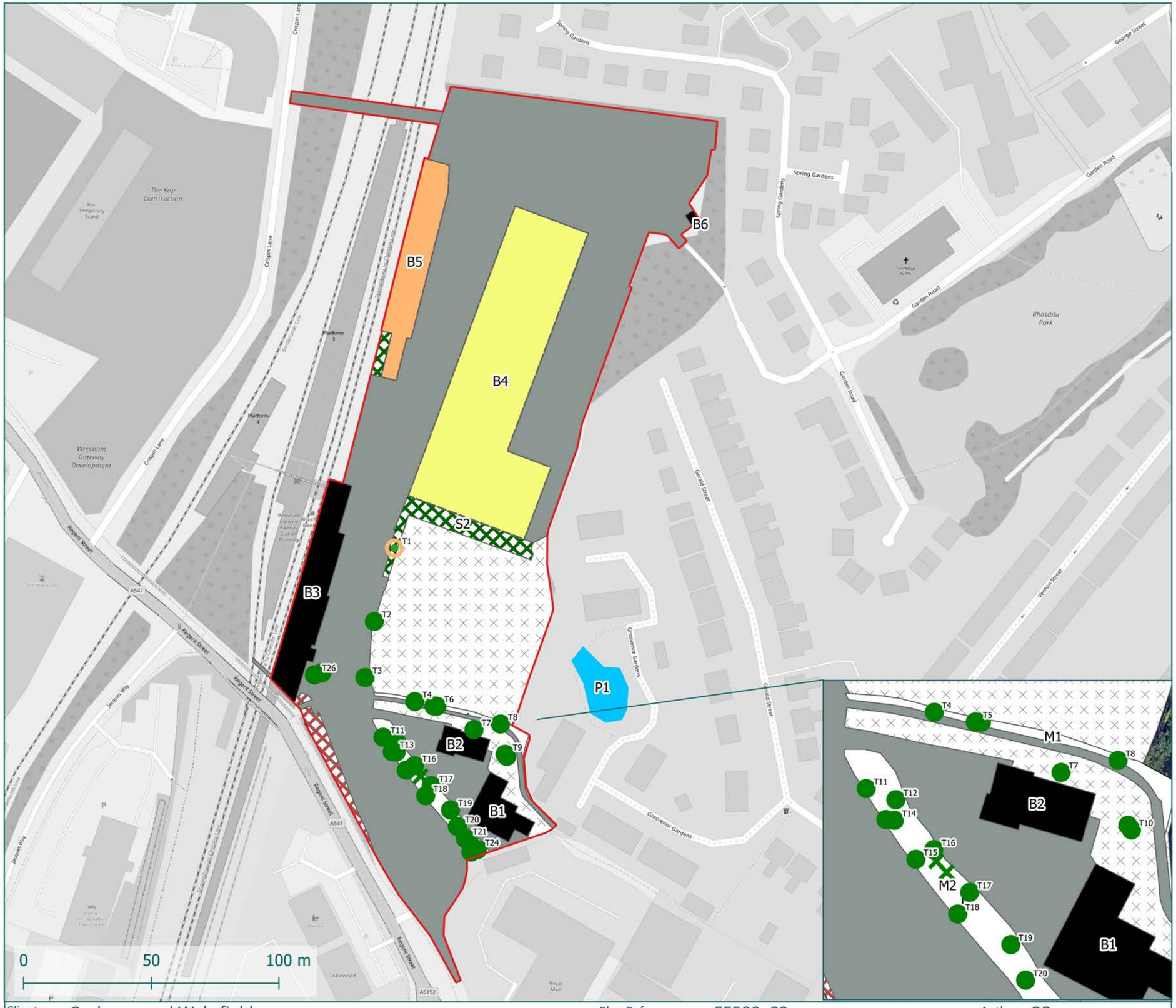
Species not on Figure:

★ Grid References for Species found in Appendix B:

1 - SJ3350	10 - SJ327499
2 - SJ3351	11 - SJ328512
3 - SJ3250	12 - SJ312501
4 - SJ3251	13 - SJ324507
5 - SJ329500	14 - SJ329508
6 - SJ31365102	15 - SJ312499
7 - SJ31325000	16 - SJ31315002
8 - SJ31344999	17 - SJ314503
9 - SJ324508	

Client:	Cushmen & Wakefeild	Plan Reference:	FE500_01	Author:	CC
Project:	Wrexham Gateway	Project Reference:	FE500	Date:	1/7/2025
Title:	Figure 1 - Site Location & Desk Study Results Plan	Report Reference:	FE500/EcIA01	Scale:	1:20,000

C:\Users\Charlie.Cuddy\Futures Ecology Ltd\James.Eales - Projects\FE500 Wrexham Gateway\QGIS\1_Plans\FE500_Desk Study Plan.qgs



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Key

- Site Boundary

Habitats

- Buildings
- Buildings - moderate bat roost potential
- Buildings - low bat roost potential
- Hardstanding
- Introduced shrub
- Cultivated/disturbed land - ephemeral/short perennial
- Improved grassland
- Scrub - dense/continuous (mixed scrub)
- Waterbody
- Broadleaved tree (NONE)
- Broadleaved tree (PRF-I)
- Scrub - scattered

Client:	Cushmen and Wakefield	Plan Reference:	FE500_02	Author:	CC
Project:	Wrexham Gateway	Project Reference:	FE500	Date:	1/7/2025
Title:	Figure 2 - Phase 1 Habitat Plan	Report Reference:	FE500/PEA01	Scale:	1:1,500

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