ECOLOGY CONSULTING

# Land at Bryn Lane, Wrexham

## Ecological Impact Assessment Report

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# Executive Summary

An Ecological Impact Assessment was undertaken at the site of a proposed new warehouse facility off Bryn Lane, Wrexham Industrial Estate. The assessment is based on data gathered as part of a Preliminary Ecological Appraisal, which included a desk study and extended UKHab survey, and a series of great crested newt surveys.

The site is located adjacent to the River Dee and Bala Lake Special Area of Conservation, the River Dee Site of Special Scientific Interest, two Local Wildlife Sites, several ancient woodlands and priority habitats although all of these are located outside of the site boundary.

Potentially significant ecological impacts were identified and scoped in for assessment for designated sites, non-priority habitats, breeding birds, great crested newts, and reptiles.

In the absence of mitigation, negligible adverse effects were predicted on statutory designated sites, whilst negligible to minor adverse effects were predicted on non-priority habitats, amphibians, breeding birds and reptiles. Whilst none of the effects were considered to comprise significant effects, mitigation was proposed as good practice or to ensure legislative compliance.

Mitigation includes the designation of an area of retained habitat as a Ecological Habitat Management Area to provide enhanced habitat provision for a GCNs, which will also provide benefits for reptiles and terrestrial invertebrates. Other mitigation includes the implementation of RAMs during construction for a range of species, the provision of bird boxes on the new building and retained trees and sensitive design of drainage, construction and operational surface water and operational lighting strategies to prevent impacts on designated sites, amphibians, bats and birds.

Subject to the proposed mitigation and compensation measures, it is predicted that the Proposed Development would have no significant effects on important ecological features.

# 1 Introduction

## 1.1 Terms of Reference

Ecology Consulting Ltd was instructed by Colliers to undertake an Ecological Impact Assessment of a proposed new warehouse and associated infrastructure located at land off Bryn Lane, Wrexham. The EcIA is required to gather baseline information and undertake an assessment of potential ecological impacts arising from the Proposed Development. Please note this document has been updated in response to comments from Natural Resources Wales (NRW), a summary of the comments from NRW and a response to each of these comments is provided for ease of review in Appendix D.

## 1.2 Objectives

The objectives of this study are to:

- Report the current ecological baseline of the site.
- Identify the presence of protected sites and irreplaceable or priority habitats present.
- Identify habitats present within the site.
- Identify the presence or potential presence of protected, notable or invasive species.
- Assess the ecological importance of features identified.
- Identify potential ecological impacts and specify mitigation and/or compensation measures where necessary.

## 1.3 Proposed Works

Based on current development proposals, the site would be re-developed to accommodate an eastern extension to the current Very warehouse building at land off Bryn Lane.

### 1.3.1 Relevant Legislation and Planning Policy

A range of international and national legislation has been established in the UK to protect important nature conservation sites and priority species. At the international level, European Union (EU) Directives require individual member states to implement their conservation provisions nationally for the benefit of Europe as a whole. These Directives have been transposed into UK law by the Conservation of Habitats and Species Regulations 2017 (amended).

Other international conventions include: the Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979), which requires the maintenance of populations of wild flora and fauna, giving particular protection to endangered and vulnerable species; and the Bonn Convention on the Conservation of Migratory Species of Wild Animals (1979), which requires the protection of migratory species throughout their entire range. The above conventions are implemented in England and Wales via the Wildlife and Countryside Act (WCA), 1981 (as amended) and Countryside and Rights of Way (CRoW) Act 2000. This legislation also protects important habitats and sites such as Sites of Special Scientific Interest (SSSI).

Section 6 under Part 1 of the Environment (Wales) Act 2016 (as amended 2026) introduced an enhanced biodiversity and resilience of ecosystems duty (the S6 duty) for public authorities in the exercise of functions in relation to Wales. The S6 duty requires that public authorities must seek to maintain and enhance biodiversity so far as consistent with the proper exercise of their functions and in so doing promote the resilience of ecosystems.

Section 7 goes on to deal with biodiversity lists and duty to take steps to maintain and enhance biodiversity. This section replaces the duty in Section 42 of the Natural Environment and Rural Communities (NERC) Act 2006 in Wales. The Welsh Ministers publish, review and revise lists of living organisms and types of habitat in Wales that they consider are of key significance to sustain and improve biodiversity in relation to Wales. These are known as Priority Species and Priority Habitats[1].

Finally, Planning Policy Wales (PPW 2021[2]) sets out the land use planning policies of the Welsh Government. It is supplemented by a series of Technical Advice Notes[3] (TAN), Welsh Government Circulars, and policy clarification letters, which together with PPW provide the national planning policy framework for Wales.

The primary objective of PPW is to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales, as required by the Planning (Wales) Act 2015, the Well-being of Future Generations (Wales) Act 2015 and other key legislation.

The Environment (Wales) Act 2026 also introduces the Sustainable Management of Natural Resources (SMNR) and sets out a framework to achieve this as part of decision-making. The relevant key features of the SMNR approach to which the planning system can contribute are:

- Improving the resilience of ecosystems and ecological networks;
- Halting and reversing the loss of biodiversity;
- Maintaining and enhancing green infrastructure based on seeking multiple ecosystem benefits and solutions; and
- Ensuring resilient locational choices for infrastructure and built development, taking into account water supplies, water quality and reducing, wherever possible, air and noise pollution and environmental risks, such as those posed by flood risk, coastal change, land contamination and instability.

Wrexham Unitary Development Plan (UDP)

The adopted Wrexham Unitary Development Plan (UDP) 1996–2011, which remains part of the statutory development plan for Wrexham, includes biodiversity policies PS11 (Biodiversity) and Policy EC6 (Biodiversity Conservation).

Policy PS11 – Biodiversity seeks to encourage development that protects, enhances and improves the biodiversity value of sites. The policy supports measures that contribute positively to nature conservation interests and the enhancement of ecological resources.

Policy EC6 – Biodiversity Conservation states that development proposals within or adjacent to sites of biodiversity interest will only be permitted where it can be clearly demonstrated that the need for the development outweighs the intrinsic nature conservation value of the site. Where impacts cannot be avoided, harm should be minimised and appropriate mitigation and compensatory measures implemented. The policy also supports opportunities to enhance biodiversity and nature conservation interests.

[1] *https://www.biodiversitywales.org.uk/environment-wales-act*

[2] *https://gov.wales/sites/default/files/publications/2021-02/planning-policy-wales-edition-11_0.pdf*

[3] *https://gov.wales/technical-advice-note-tan-5-nature-conservation-and-planning*

Local Planning Guidance Note No. 32: Biodiversity and Development

Local Planning Guidance Note (LPGN) 32: Biodiversity and Development provides supplementary guidance to the UDP and is a material consideration in the determination of planning applications. The guidance emphasises the importance of integrating biodiversity considerations into the planning process and seeks to ensure that development proposals avoid adverse impacts on habitats, protected species and sites of nature conservation importance.
LPGN 32 promotes a hierarchical approach to biodiversity conservation, whereby ecological impacts should first be avoided, then mitigated, and finally compensated where residual effects remain. The guidance also encourages the incorporation of biodiversity enhancement measures within development proposals to secure net gains for wildlife wherever practicable. Ecological surveys and assessments are expected where habitats or species of conservation importance may be affected by development.

# 2 Methodology

## 2.1 Preliminary Ecological Appraisal (PEA)

A PEA was undertaken by Penny Anderson Associates (PAA) in March 2026. The information provided within the PEA is reproduced directly within the relevant sections of this EcIA as this information forms part of the ecological baseline upon which the EcIA is undertaken.

### 2.1.1 Desk Study

A request for details of protected and notable species, and locally designated sites within 2km of the centre of the site (GR: SJ 39482 50128) was made to COFNOD (The Home of Wildlife Data for North Wales), with data returned in February 2026. Additionally, the Multi-Agency Geographic Information for the Countryside (MAGIC5) website was consulted for details of statutory designated sites and Priority Habitats, within a 2km search for UK statutory sites and a 10km search for EU statutory sites, from the centre of the site.

It should be noted that a lack of species records within an area may not reflect an actual absence of that species but could simply be a function of limited recording/survey effort in that area.

### 2.1.2 Extended UKHab Survey

A UKHab survey and a scoping assessment for protected and notable species was undertaken by PAA on 17th February 2026.

The PEA was undertaken in accordance with the best practice methodology as detailed by the Chartered Institute of Ecology and Environmental Management (CIEEM 2017), UK Habitat Classification System Version 2.01 (UKHab Ltd 2023) and the British Standard BS42020:2013.

The UKHab survey element entailed mapping and describing the habitats present within the site boundary and collating a plant species list for each of the habitats. Each plant species was assigned an abundance code using the 'DAFOR' scale (where: D = Dominant; A = Abundant; F = Frequent; O = Occasional; R = Rare), which provides an indication of the relative abundance of each plant species present within a particular habitat.

The survey was 'extended' (Institute of Environmental Assessment 1995) to include notes on fauna and habitats which could potentially support protected or notable species. The presence of, or potential for, protected or notable species was noted on the field map as a Target Note (TN) during the survey.

#### Habitat Condition Assessment

HCA was undertaken on each separate parcel of habitat, linear feature (line of trees) and individual tree identified during the habitat survey. The condition assessment used the 'Statutory Biodiversity Metric Condition Assessment - Technical Annex 1: Condition Assessment Sheets and Methodology'.

### 2.1.3 Great Crested Newt Surveys

Great crested surveys were undertaken between April and June 2026. Surveys were undertaken in accordance with the principles and methodologies set out within the Great Crested Newt Survey and Mitigation Guidelines 2025 (GCN SMG 2025). The surveys were undertaken to establish presence/likely absence of GCN, followed by an assessment of population size where present. Surveys techniques used included torchlight surveys, egg searches, hand netting and searching natural refugia. In accordance with the Guidelines, bottle trapping was avoided as it

was not necessary to use this survey technique. as appropriate to the characteristics of each waterbody and undertaken during the optimal survey period. All surveys were completed by suitably experienced ecologists operating under a NRW GCN licence survey licence, under appropriate weather conditions and in accordance with current biosecurity protocols and animal welfare requirements.

### 2.1.4 Ecological Impact Assessment

#### Defining the Study Area

The assessment methodology follows that set out in the CIEEM Guidelines for Ecological Impact Assessment (EcIA)[4]. The study area used for this assessment is defined as the Zone of Influence (ZoI) of the Proposed Development. The ZoI is defined as the area over which a project or its activities can have an influence on resources and varies for different ecological features depending on their sensitivity to an environmental change. The ZoI was determined through review of the baseline conditions in comparison with the Proposed Development.

The following parameters have been used for the ZoI:

- International statutory designated sites up to 1km from the Proposed Development, including Special Areas of Conservation (SACs), SPAs and Ramsar sites;
- National statutory designated sites up to 1km from the Proposed Development including SSSIs, National Nature Reserves (NNRs) and Local Nature Reserves (LNRs);
- Non-statutory designated sites (e.g. LWSs) up to 1km from the Proposed Development;
- Protected/notable species present or potentially present within the Proposed Development boundary and within up to 1km;
- Priority habitats within the Proposed Development boundary and up to 1km; and
- Non-priority habitats within the Proposed Development boundary.

#### Evaluation of Importance

The importance of ecological features has been assessed by considering a range of spatial scales, rather than a simple hierarchy of importance. Each ecological feature has been evaluated against all relevant spatial scales, from Site to International, and assigned an appropriate level of importance based on the available evidence and professional judgement. Within this assessment, the national scale is represented by Wales, reflecting the geographical context of the Proposed Development.

The following spatial scales have been used as the frame of reference for this assessment:

- International (European).
- United Kingdom.
- Wales.
- Regional (North East Wales).
- County (Wrexham).
- Local (Wrexham Industrial Estate).
- Site (the site and immediately adjacent areas).

[4] CIEEM (2018) 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

Taking into account the CIEEM guidance, features of less than Local importance are generally considered unlikely to trigger mitigation requirements in EcIA terms. However, where it is helpful to characterise and evaluate features within the site, this assessment also uses the term "site importance". This includes features which are assessed to be of value only in the context of the site (and its immediate zone of influence). Features of site importance are typically unlikely to require further assessment for the reasons set out above.

A wide range of sources can be used to assign importance to ecological features, including legislation and policy. In the case of designated sites, their importance reflects the geographic context of the designation. For example, sites designated as SACs are recognised as being of importance at an International level (Europe), which equates to 'High' importance. Ecological features not included in legislation and policy may also be assigned importance, due to, for example, local rarity or decline, or provision of a functional role for other ecological features. Ecological features are assessed in relation to their size, diversity, naturalness, rarity, fragility, typicalness, connectivity with surroundings, intrinsic value, recorded history and potential value. In all cases, professional judgement has been used to assign importance.

## Assessment of Effects

The CIEEM Guidelines provide a robust framework for Ecological Impact Assessment (EcIA), which is then informed by the interpretation of contextual information and professional judgement. The assessment of effects comprises the following steps:

- The baseline is fully defined (i.e. an assessment of the existing baseline has been made and an assessment of ecological importance of each feature has been assigned a geographic frame of reference);
- The potential effects from the Proposed Development (direct and indirect) and sources of impact on important ecological features has been defined and, where possible, quantified – relevant characteristics used to define effects include beneficial or adverse, magnitude, extent, duration, reversibility and timing/ frequency;
- Consideration has been given to avoidance, mitigation, compensation and enhancement measures (the 'mitigation hierarchy') integral to the Proposed Development; and
- Once measures to avoid and mitigate ecological effects have been finalised, the level and significance of the residual effects (after mitigation) on ecological features have been identified.

It is only necessary to assess and report significant residual effects (effects that remain after mitigation measures have been taken into account). However, it is good practice to make clear both the potential significant effects without mitigation and the residual significant effects following mitigation. This process of assessment without mitigation helps to identify necessary and relevant mitigation measures that are proportionate to the size, nature and scale of anticipated effects.

## Determining Magnitude of Scale of Impact

The magnitude of change (or impact) has been considered as the change experienced from the relevant baseline conditions at the sensitive receptor/ecological feature and has been considered on a geographic scale. The criteria, used collectively to identify and assign the magnitude of change (or impact), are in accordance with CIEEM Guidelines are shown in the table below.

**Table 1: Criteria to determine magnitude of impact**

| Parameter | Description |
|---|---|
| **Direction** | Impacts have either adverse (negative) or beneficial (positive), or neutral (no change) on the environment. |
| **Extent** | The spatial extent over which the impact occurs. |
| **Duration** | The time for which the impact is expected to last prior to recovery of the ecological feature or replacement of the feature by similar resource (in terms of quality and / or quantity). This is expressed as a short-term, medium-term or long-term effect relative to the ecological feature that is impacted. Duration will vary based on the ecological feature affected but as a general guide the following parameters are identified:<br>'Short-term': within 1 year;<br>'Medium-term': within approximately 1 to 10 years; and<br>'Long-term': more than 10 years. |
| **Reversibility** | Reversible impact: temporary changes in which spontaneous recovery is possible or for which effective mitigation (avoidance / cancellation / reduction of effect) or compensation (offset / recompense / offer benefit) is possible.<br>Irreversible impacts: permanent changes from which recovery is not possible within a reasonable time scale or for which there is no reasonable chance of action being taken to reverse it. |
| **Frequency and timing** | The number of times an activity occurs will influence the resulting effect (if appropriate, described as low to high and quantified, where possible). The timing of an activity or change may result in an impact if it coincides with critical life-stages or seasons e.g. the breeding season of a particular species. |

## Determining the Magnitude of Impact and Effect Significance

Magnitude of impact has been assigned on a scale of Negligible, Low, Medium and High, with these being classified using the following criteria:

- High: Total / near total loss of a population due to mortality or displacement or major reduction in the status or productivity of a population due to mortality or displacement or disturbance. Total / near total loss of a habitat.
- Medium: Partial reduction in the status or productivity of a population due to mortality or displacement or disturbance. Partial loss of a habitat.
- Low: Small but discernible reduction in the status or productivity of a population due to mortality or displacement or disturbance. Small proportion of habitat lost.
- Negligible: Very slight reduction in the status or productivity of a population due to mortality or displacement or disturbance. Reduction barely discernible, approximating to the 'no change'.

The significance of effects has been determined using professional judgement and expressed with reference to feature importance on a geographic frame of reference as recommended within CIEEM guidance and the table below has been used as a tool which has assisted with this process.

**Table 2: Matrix to support determining the level of effect**

| | | Importance of Ecological Feature | | | |
|---|---|---|---|---|---|
| | | **International, National or Regional ecological importance** | **County ecological importance** | **Local or Site level ecological importance** | **Negligible** |
| **Magnitude of change** | High | Major | Moderate to Major | Minor to Moderate | Negligible |
| | Medium | Moderate to Major | Moderate | Minor | Negligible |
| | Low | Minor to Moderate | Minor | Negligible to Minor | Negligible |
| | Negligible | Negligible | Negligible | Negligible | Negligible |

The following terms have been used to define the level of the effects identified and these can be 'beneficial' or 'adverse':

- **Major effect**: Where the Proposed Scheme is likely to cause a considerable change from the baseline conditions and the receptor has limited adaptability, tolerance or recoverability or is of the highest importance;
- **Moderate effect**: Where the Proposed Scheme is likely to cause either a considerable change from the baseline conditions at a receptor which has a degree of adaptability, tolerance or recoverability or a less than considerable change at a receptor that has limited adaptability, tolerance or recoverability;
- **Minor effect**: Where the Proposed Scheme is likely to cause a small, but noticeable change from the baseline conditions on a receptor which has limited adaptability, tolerance or recoverability or is of the highest importance; or where the Proposed Scheme is likely to cause a considerable change from the baseline conditions at a receptor which can adapt, is tolerant of the change and / or can recover from the change; and
- **Negligible**: Where the Proposed Scheme is unlikely to cause a noticeable change at a receptor, despite its level of importance or there is a considerable change at a receptor which is not considered sensitive to a change.

The duration of the effect has been assessed as either 'short-term', 'medium-term' or 'long-term'. Short-term is considered to be up to 1 year, medium-term is considered to be between 1 and 10 years and long-term is considered to be greater than 10 years.

## Significance of Effects

For the purposes of this EcIA, 'significant effect' is an effect that either supports or undermines biodiversity conservation objectives for important ecological features or for biodiversity in general and significance is presented as Negligible, Minor, Moderate or Major at the appropriate geographic level. Where the above table shows a range e.g. Minor to Moderate, professional judgement is used to assign the effect level.

## 2.2 Limitations

The 2026 great crested newt surveys were undertaken following an exceptionally dry winter and spring. Prolonged dry conditions are likely to have reduced the suitability of breeding ponds, with some individuals potentially delaying or foregoing breeding altogether and remaining in terrestrial habitats. Consequently, survey results may underestimate the size of the local population, as fewer individuals may have been present within breeding ponds and therefore available for detection during surveys.

There were limitations at some of the ponds surveyed during the GCN surveys. Pond 1 had breeding Canada geese on the east side, meaning that part of the pond perimeter was avoided during the surveys. Pond 2 had very deep silt and floating mats of vegetation and as such, even with chest waders, the entire area of the pond could not be surveyed. Pond 3 had breeding Canada geese on the north side of the pond but the main restriction was dense scrub which surrounds the ponds on all sides, with only a couple of points available where surveys could be safely undertaken from bankside, as the water and silt is too deep to safely enter the waterbody. The limitations are Ponds 1 and 2 are minor and whilst the limitation at Pond 3 is significant, this is unlikely to significantly affect proposed mitigation, as discussed further in Section 6. Access was denied for one of the six surveys scheduled on Pond 6, however as the results were very similar for all five surveys undertaken, this is not considered to present a significant limitation.

Some access limitations were encountered. The east of the site was unmanaged and had become significantly overgrown, however, overall the site was sufficiently accessible to map the broad habitats present.

The seasonal timing of the survey means that some plant species may have been under-recorded or unrecorded. However, the habitats were surveyed sufficiently to map the broad habitat types present within the site.

An ecological survey is a snapshot in time and presence or absence of protected/notable species may vary across seasons and in response to change in habitats and site conditions. Furthermore, whilst biological records can provide information on the presence of protected/notable species, an absence of records does not necessarily mean a species is absent from the site, it may be that surveys have not been undertaken locally for this species.

# 3 Ecological Baseline

## 3.1 Desk Study

### 3.1.1 Designated Sites

European protected sites include Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar wetland sites, possible SAC, potential SPA and proposed Ramsar sites.

River Dee and Bala Lake is a designated SAC in both England and Wales, following the contours of the River as it passes back and forth over the Welsh/English border. The river is located to the east of the site and is 2.5km east of the centre of the site at its closest point.

Johnstown Newt Sites are a designated SAC in Wales, located 8.71km west of the centre of the site. These sites are designated for holding the largest know populations of great crested newt (*Triturus cristatus*, GCN) in Great Britain.

Midland Meres and Mosses Phase 2 is a designated Ramsar site, with the individual site within this Ramsar and the search parameters located 4.9km north-west of the centre of the site.

Afon Dyfrdwy (River Dee) is designated as a Site of Special Scientific Interest (SSSI), covering much of the same footprint as the River Dee and Bala Lake SAC. It is located 1.9km east of the centre of the site at the closest point to the SSSI.

Three Local Wildlife Sites (LWS) were returned within the 2km search area:

- Peter's Dingle. An oak (*Quercus sp.*) and ash (*Fraxinus excelsior*) woodland following a brook, containing ancient woodland indicator species, dog's mercury (*Mercurialis perennis*), yellow archangel (*Lamiastrum galeobdolon*) and hart's-tongue fern (*Asplenium scholopendrium*). Located 1.8km south of the centre of the site;
- Wrexham Industrial Estate. A series of sites which include habitats such as unmanaged grassland and ancient broadleaved woodland. Located 530m west of the centre of the site; and
- Oatlands Meadows. Several damp meadows dominated by meadowsweet (*Filipendula ulmaria*). Located 1.8km east of the centre of the site.

The site is encompassed with a 'B-Line', a series of insect pathways that pass through towns and countryside. Sites within these B-Lines are being restored via the creation of wildflower-rich habitats to form stepping stones for invertebrates species.

### 3.1.2 Priority Habitats

Two parcels of the Priority Habitat ancient semi natural woodland were returned from the 2km data search area. Both of these parcels are located 1.86km south of the centre of the site and are encompassed within Peter's Dingle Wildlife Site.

Surrounding the River Dee, which flows to the east of the site, there are parcels of Priority Habitat Coastal floodplain and grazing marsh. This habitat continues along the river systems, surrounding the River Clywedog which flows to the south of the site. The habitat is, at its closest point to the centre of the site along the River Clywedog, located 1.3km south of the centre of the site.

Twenty-one parcels of Priority Habitat Traditional orchard were returned from the 2km data search area. These are scattered throughout the search area, with the closest parcel located 550m east of the site centre, located within land to the west of Bryn Lane.

## 3.1.3 Protected & Notable Species

### Amphibians

The desk study returned 169 records (some of which contain more than one individual) of GCN dating between 1991 and 2025. Several of these records are located within the site boundary.

Eighteen records of Priority Species common toad (*Bufo bufo*) were returned from the 2km data search from the centre of the site, dating between 1992 and 2025. The closest record is located within the site boundary, where suitable habitat is present.

### Reptiles

Two records of adder (*Vipera berus*) were returned from the 2km data search area, dating between 1999 and 2009. The closest record is located 1.1km south-west of the centre of the site, within Redwither Woodland.

One record of common lizard (*Zootoca vivipara*) was returned from the 2km data search area, dated 2020. The record is located 1.2km west of the centre of the site, within Wrexham Industrial Estate.

One record of grass snake (*Natrix helvetica*) was returned from the 2km data search area, dated 2018. The record is located 1.5km south-west of the centre of the site, within Redwither Brook.

Two records of slow-worm (*Anguis fragilis*) were returned from the 2km data search area, dated 1999 and 2009. The closest record is located 1.1km south-west of the centre of the site, within Redwither Woodland.

[redacted]

### Bats

Forty-five records of bats were returned from the 2km data search area. These records date between 1991 and 2024, and cover at least nine species of bat, including some roost records. A summary of the bat records are provided in Table 3.

**Table 3: Bat Records within 2km of the Site Centre**

| Common Name | Scientific Name | No. of Records (of which are Roosts) | Closest Record (approximate distance and direction from site centre) | Closest Roost Record (approximate distance and direction from site centre) |
|---|---|---|---|---|
| Bat species | Chiroptera sp. | 1 (0) | 1.8km south east | No Roost records |
| Brandt's bat | *Myotis brandtii* | 2 (0) | 1.7km west | No Roost records |
| Brown long-eared bat | *Plecotus auritus* | 6 (1) | 0.5km north | 1.7km southwest (individual bat) |
| Common pipistrelle | *Pipistrellus pipistrellus* | 13 (2) | 0.5km north | 0.6km east (individual bat) |
| Daubenton's bat | *Myotis daubentonii* | 2 (0) | 0.5km north | No Roost records |

| | | | | |
|---|---|---|---|---|
| Lesser horseshoe bat | *Rhinolophus hipposideros* | 2 (0) | 1.5km west | No Roost records |
| Myotis species | *Myotis* sp. | 2 (1) | See roost record | 0.8km west (droppings confirmed) |
| Natterer's bat | *Myotis nattereri* | 1 (0) | 0.5km north | No Roost records |
| Noctule | *Nyctalus noctula* | 6 (0) | 0.5km north | No Roost records |
| Pipistrellus species | *Pipistrellus* | 1(0) | 1.5km south west | No Roost records |
| Soprano pipistrelle | *Pipistrelle pygmaeus* | 4 (0) | 0.5km north | No Roost records |
| Whiskered bat | *Myotis mystacinus* | 3 (1) | See roost record | 0.6km east (droppings confirmed) |
| Whiskered/Brandt's | *Myotis mystacinus/ brandtii* | 2 (0) | 0.5km north | No Roost record |

## Otter

Eight records of otter (*Lutra lutra*) were returned from the 2km data search area, dating between 1945 and 2017. The closest record is located 575m east from the centre of the site; this record is the oldest record from 1945 which details an otter than has been shot, it is not located in suitable otter habitat.

## Water Vole

No records of water vole (*Arvicola amphibius*) were returned from the 2km data search area.

## Other mammals

Two records of hedgehog were returned from the 2km data search area, both dated 2017. The closest record is located 1.7km north-east of the centre of the site.

One record of brown hare (*Lepus europaeus*) was returned from the 2km data search area, dated 2010. This record is located 2km east of the centre of the site.

Four records of polecat (*Mustela putorius*) were returned from the 2km data search area, dating between 2004 and 2014. The closest record is located 0.9km north-west of the centre of the site.

## Birds

All nesting birds, their nests and eggs are protected from harm under the WCA, 1981 (as amended). In addition, species listed under Schedule 1 of the WCA are further protected against disturbance when breeding.

A number of bird species are listed under Section 41 in the NERC Act (2006, amended) as species 'of principal importance for the purpose of conserving biodiversity'. These species are often known as the 'S41 species'. There is a legal requirement for a public body to 'have regard to' these species in relation to maintaining biodiversity. The S41 list overlaps somewhat with the UK Biodiversity Action Plan (BAP) species, with national or local targets to maintain and enhance populations.

Furthermore, the Birds of Conservation Concern (BoCC) report lists those bird species that are classed as being of High (Red listed) and Medium (Amber Listed) conservation concern based on population monitoring (Stanbury et al. 2021). This Red and Amber classification helps guide the assessment of bird species of conservation interest on or near to a site, alongside legislative and policy requirements.

A small number of Schedule 1 species, including kingfisher (*Alcedo atthis*), little ringed plover (*Charadrius dubius*) and peregrine (*Falco peregrinus*) were recorded within the 2km search

area; these records are classed as confidential. All other protected and notable bird species records within the 2km search area are listed in Appendix A along with their conservation status.

## Invertebrates

The desk study returned records of 14 different invertebrate species with NERC Section 42 designations, as listed in Table 4.

**Table 4: Section 42 Invertebrates Within 2km of the Site Centre**

| Common Name | Scientific Name |
|---|---|
| **Moth Species** | |
| Blood-vein | *Timandra comae* |
| Cinnabar | *Tyria jacobaeae* |
| Figure of eight | *Diloba caeruleocephala* |
| Latticed heath | *Chiasmia clathrate* |
| **Common Name** | **Scientific Name** |
| Oak hook-tip | *Watsonalla binaria* |
| Shaded broad-bar | *Scotopteryx chenopodiata* |
| Small emerald | *Hemistola chrysoprasaria* |
| Small phoenix | *Ecliptopera silaceata* |
| Sprawler | *Asteroscopus sphinx* |
| **Butterfly Species** | |
| Dingy skipper | *Erynnis tages tages* |
| Grizzled skipper | *Pyrgus malvae* |
| Small heath | *Coenonympha pamphilus* |
| Wall | *Lasiommata megera* |
| **Beetle Species** | |
| Scarce four-dot pin-palp | *Bembidion quadripustulatum* |

## White-clawed Crayfish and Notable Fish

No records of white-clawed crayfish (*Austropotamobius pallipes*) were returned from the 2km data search area.

Eight records of Atlantic salmon (*Salmo salar*) were returned from the 2km data search area, dating between 1994 and 2007. The closest record is located 1.4km south of the centre of the site, located within the River Clywedog, with the remaining records located further downstream.

Five records of brown/sea trout (*Salmo trutta*) were returned from the 2km data search area, dating between 1994 and 2007. The closest record is located 1.7km south of the centre of the site, located within the River Clywedog, with the remaining records located further downstream.

Eight records of eel (*Anguilla anguilla*) were returned from the 2km data search area, dating between 2001 and 2021. The closest record is located 0.6km west of the centre of the site, located within a lagoon on Wrexham Industrial Estate, with the remaining records located within the River Clywedog.

### Notable Plant Species

Three records of bluebell (*Hyacinthoides non-scripta*), which are designated Schedule 8 species under the WCA, 1981 (as amended), were returned from the 2km data search area. The records are clustered at the west of the site, with the closest record located 1.7km west of the centre of the site.

### Notable Fungi Species

Nineteen records of 17 individual notable fungi were returned from the 2km data search area. Details of these species and their protective designations can be found in Table 5.

**Table 5: Notable Fungi Records**

| Common Name | Scientific Name |
|---|---|
| No common name | *Tyromyces chioneus* |
| Bay polypore | *Polyporus badius* |
| Blackening waxcap | *Hygrocybe conica* |
| Cinnamon bracket | *Hapalopilus nidulans* |
| Flame shield | *Pluteus aurantiorugosus* |
| Resinous bracket | *Ganoderma resinaceum* |
| Skinnyfoot club | *Clavaria tenuipes* |
| Slender coral | *Ramariopsis subtilis* |
| Snowy waxcap | *Cuphophyllus virgineus* var. *virgineus* |
| Striate earthstar | *Geastrum striatum* |
| Sulphur knight | *Tricholoma sulphureum* var. *sulphureum* |
| Tongues of fire | *Gymnosporangium clavariiforme* |
| Tufted wood mushroom | *Agaricus impudicus* |
| Wood pinkgill | *Entoloma rhodopolium* |
| Wrinkled peach | *Rhodotus palmatus* |
| Yellow club | *Clavulinopsis helvola* |
| Yellow shield | *Pluteus chrysophaeus* |

## 3.2 UKHab Habitat Survey

A map showing the location of the habitats is included as Figure 1. The HCA results are provided within Appendix B.

### 3.2.1 Habitats

#### *Holcus-Juncus* Neutral Grassland – g3c8 (10, 14)

A single parcel of *Holcus-juncus* neutral grassland is present to the east of the site adjacent to scrub and wet woodland habitats.

Grassland G1 is present to the east of the site, the grasses in this parcel are of mostly tall sward with some patches of shorter sward from rabbit (*Oryctolagus cuniculus*) grazing, scattered scrub is present, accounting for c.10% of the total habitat area. Species here include abundant soft rush (*Juncus effusus*), frequent bulbous buttercup (*Ranunculus bulbosus*) and occasional Yorkshire-fog (*Holcus lanatus*) and cock's-foot (*Dactylis glomerata*). Also present within the

grassland are occasional goat willow (*Salix caprea*) and sessile oak (*Quercus petraea*) which occurs rarely. This habitat parcel was assessed as Moderate condition.

## Modified Grassland – g4

Grassland parcels are present adjacent to hardstanding areas throughout the site.

Grassland G2 includes multiple parcels throughout the site that are present adjacent to roads, pathways and parking areas. The grasslands are mostly of short sward.

Grassland G3 is present to the north-west of the site and comprises mostly of mosses as well as species present within G2 occasionally. Both parcels of modified grassland were assessed as Poor condition.

## Bramble Scrub – h3d

Four parcels of bramble (*Rubus fruticosus*) scrub are present across the site, all comprised of dominant bramble with locally occasional goat willow and birch species (*Betula* sp.). within the larger parcel to the east. This habitat does not require condition assessment.

## Mixed Scrub – h3h

Three parcels of mixed scrub are present to the east of the site and a single parcel to the southwest of the site. The eastern parcels comprise abundant bramble, with occasional to locally frequent goat willow and birch sp., with dogwood (*Cornus sanguinea*) occurring rarely. The western parcel comprises native species, including frequent goat willow, occasional dogwood and locally abundant to occasional bramble. Both mixed scrub parcels were assessed as Poor condition.

## Pond – r1 (42)

To the west of the site is a large pond that holds water throughout the year. Waterfowl, including geese and moorhen (*Gallinula chloropus*), frequent the pond, with individuals noted during the survey as well as high levels of droppings. Approximately half the pond is shaded from scrub and small trees, with abundant common reed (*Phragmites australis*) present at the pond edges. This pond was assessed as Moderate condition.

In addition to the large pond, there are several small temporary ponds which are present in wet woodland areas, these have not been mapped due to them only holding water due to continuous rainfall for weeks prior to the survey, as well as not meeting the size for the minimal mappable unit (5m$^2$).

Two temporary ponds are also present within hardstanding areas to the east, these are thought to hold water for at least four months of the year due to the presence of rushes (*Juncus* sp.) in areas of broken hardstanding.

## Introduced Shrub – u1 (847)

Two parcels of ornamental introduced shrub are present to the north and south of the large pond in the west of the site. All species within these parcels are non-native. This habitat does not require a condition assessment.

## Developed Land; Sealed Surface – u1b

The access for the site and multiple areas surrounding the building is composed of hardstanding, which does not require a condition assessment.

## Buildings – u1b5

Six buildings are present throughout the site, including a large warehouse building with an adjacent single storey building used as offices and four smaller buildings present to the south of the site. The buildings do not require a condition assessment.

## Sparsely Vegetated Urban Land – u1f (81)

A large parcel of sparsely vegetated urban land is present to the east of the site, with a smaller parcel present to the south of the site. Species present within these areas include frequent teasel (*Dipsacus fullonum*), early forget-me-not (*Myosotis ramosissima*) and lesser hawkbit (*Leontodon saxatilis*), with locally occasional soft-rush and hard rush (*Juncus inflexus*). Scattered scrub is present comprising occasional birch species and grey willow (*Salix cinerea*), with locally frequent bramble and butterfly-bush (*Buddleja davidii*). The condition was assessed as Moderate.

## Wet Woodland – w1d

Two parcels of wet woodland are present to the east and south of the site.

The eastern parcel of wet woodland comprises dominant semi-mature goat willow over bare ground, with some fallen deadwood.

The wet woodland parcel to the south comprises abundant Italian alder (*Alnus cordata*), occasional grey poplar (*Populus* x *canadensis* (var. *serotina*)) and goat willow, and locally frequent dogwood over mostly bare ground with patches of bramble occurring rarely. Multiple trees within the woodland are fallen, likely due to high winds. Both wet woodland parcels were assessed as Poor condition.

## Other Broadleaved Woodland – w1g

Parcels of other broadleaved woodland are present in dryer areas of the site, predominantly adjacent to the southern boundary of the site, with a small parcel comprised of non-native ornamental trees present to the north-west.

Woodland W1 comprises occasional birch species and locally occasional hawthorn (*Crataegus monogyna*), with dogwood occurring rarely. Italian alder is locally frequent within wetter areas and bramble is abundant beneath the woodland canopy.

Woodland W2 is present to the south of the site. Species here include abundant wild privet (*Ligustrum vulgare*), frequent grey poplars and occasional silver birch (*Betula pendula*).

Woodland W3 is comprised solely of dominant ash with a dominant bramble understorey, it is present to the south-west of the site, adjacent to both sides of a track that leads off-site.

Woodland W4 is a small parcel present to the north of the north-west parking area. The woodland comprises non-native tree species with a dominant moss ground flora.

All other broadleaved woodland parcels were assessed as Poor condition.

## Other Woodland; Mixed – w1h

A single parcel of mixed woodland is present adjacent to areas of hardstanding to the west. Species within this parcel include frequent sycamore (*Acer pseudoplatanus*), and Lawson's cypress (*Cupressus lawsoniana)*, and occasional grey poplar and alder (*Alnus glutinosa*). The ground is mostly bare, with mosses and ivy (*Hedera helix*) occurring rarely. This habitat parcel was assessed as Poor condition.

### Ditch – (50)

A single ditch runs to the east of the site. The ditch has steep banks and is heavily shaded by adjacent trees and scrub. This ditch was assessed as Poor condition.

### Individual Trees

Four semi-mature silver birch trees are present within bramble scrub to the south-east of the warehouse building. All trees were assessed to be in Moderate condition.

## 3.3 Fauna

### 3.3.1 Amphibians

There are several ponds within close proximity to the site, as shown on Figure 2. A large pond (Pond 1) is present within the site boundary to the west of the existing office buildings. There are two ponds (Ponds 2 & 3), which are surrounded by scrub, along the southern boundary of the site and a large fishing lake (Pond 4) is also present along the southern boundary of the site. with two ponds adjacent to the eastern site boundary. There are also two ponds in close proximity to the eastern boundary of the site; Pond 5 adjacent to the south east boundary and Pond 6 adjacent to the north east boundary. A planning guidance note on Wrexham Industrial Estate from 2009 indicates many of these ponds, including Ponds 1, 2, 3, 4 and 6 previously supported breeding populations of GCN (Wrexham County Borough Council 2009). In the wider area there are a large number of other ponds within 250m of the site, including a large number of newly created ponds which form part of a GCN mitigation area to the north east which is associated with the development of land to the immediate north of the site.

A large proportion of the site comprises buildings and hardstanding, which are of poor suitability for use by amphibians, with the exception of areas of broken hardstanding east of the existing warehouse which temporarily hold pools of water during the winter and early spring months. This area is also laden with discarded materials and equipment which could be used for shelter by amphibians. Immediately south of this area, there is an area of dense bramble and mixed scrub, which is slightly isolated between built development and hardstanding to the north and west and an access road to the south and east, but could be used by amphibians. East of the access road there is a material storage area, an area of scrub, grassland and woodland, all of which provide excellent terrestrial habitat for amphibians.

GCN surveys were undertaken on Ponds 1, 2, 3, 5, 6 and on temporary pools within the areas of broken hardstanding east of the existing warehouse. Further information is provided in a separate report (P_EOP_01_R002 GCN Survey Report, Ecology Consulting 2026) whilst a summary is provided below.

The 2026 great crested newt surveys were undertaken following an exceptionally dry winter and spring. Prolonged dry conditions are likely to have reduced the suitability of breeding ponds, with some individuals potentially delaying or foregoing breeding altogether and remaining in terrestrial habitats. Consequently, survey results may underestimate the size of the local population, as fewer individuals may have been present within breeding ponds and therefore available for detection during surveys. This potential limitation has been taken into account when interpreting the survey results and assessing likely ecological effects.

GCNs were recorded in one pond, Pond 6 at the north eastern boundary of the site where a small population of GCNs was recorded (maximum count of 2 GCN) and a small number of smooth/palmate newts were also recorded. Common amphibians (common toad) were found in Pond 5 and smooth/palmate newts were recorded in the temporary pools within broken hardstanding areas although these areas had dried up by the third survey in early May. No amphibians were found in Pond 1 (where fish were noted to be present), or Ponds 2 or 3 although

dense scrub, deep silt and breeding birds limited the surveys on these waterbodies. There was no access to Pond 4 (large fishing lake) which is on private land.

### 3.3.2 Reptiles

The east of the site offers suitable habitat for reptiles, in particular grass snake due to the ditch and ponds throughout the site and off-site. The east of the site also has multiple of rubble piles adjacent to areas of scrub, the rubble piles offer a suitable refuge for hibernating and sheltering reptiles.

### 3.3.3 [redacted]

[redacted]

### 3.3.4 Bats

The warehouse building on site offers negligible opportunity for roosting bats, however, the small buildings on site may provide some limited features that could be utilised by roosting bats.

The woodland and scrub habitat adjacent to the eastern, western and southern boundaries of the site offer suitable foraging and commuting habitat for bats. These habitats continue off-site, linking to a larger green network that surrounds and cuts through Wrexham Industrial Estate.

### 3.3.5 Otter and Water Vole

The ditch on site contains dense aquatic vegetation and is unlikely to be used by transient otter. The habitat surrounding the ditch offers suitability for transient otter but offers low suitability for otter holts.

The ditch on site offers limited suitability for water vole with the banks dominated by scrub.

### 3.3.6 Other Mammals

The site offered limited suitability for hedgehog, brown hare and polecat. Scrub habitat was mostly present over wet ground which is likely wet throughout most of the year.

No further surveys are recommended regarding mammals.

### 3.3.7 Breeding birds

During the survey, multiple disused nests were noted within woodland and scrub throughout the site. The habitats on site, namely woodland and scrub, offer suitable nesting habitat for nesting birds, with limited suitability for ground nesting and wading birds within the eastern grassland.

### 3.3.8 Invertebrates

Suitable invertebrate habitat is present to the east and south of the site due to high amounts of fallen and standing deadwood although the works are not anticipated to require the removal of deadwood from areas of woodland.

### 3.3.9 White-clawed crayfish and Notable Fish

The habitat on site offers low suitability for white-clawed crayfish and notable fish.

# 4 Evaluation of Ecological Features

The table below identifies ecological features which have been identified as important, justification for the importance rating assigned and a list of features which have been scoped in or out for ecological impact assessment. Features which are scoped out are considered to be features which are sufficiently widespread, unthreatened and resilient to development impacts or at minimal risk of impact. However, due to legal protection and as good practice, mitigation and/or compensation measures may still be proposed in Section 6 for specific ecological features which are scoped out from further impact assessment.

**Table 6: Evaluation of Ecological Features**

| Feature | Importance | Scoped in/Out | Justification |
|---|---|---|---|
| **Statutory designated sites** | International /National | **Scoped in** | Whilst not immediately adjacent, the works will be undertaken in relatively close proximity to the River Dee and Bala Lake SAC and River Dee SSSI and there is a risk of indirect adverse impacts which require further assessment.<br><br>At nearly 9km distant, no adverse impacts are predicted on the Johnstown Newt Sites SAC and this site is scoped out of further assessment. Similarly, at nearly 5km distant, the Midlands Meres and Mosses is scoped out from further assessment as the proposed commercial development isn't of a type (e.g. point source emitter) which could adversely affect the sensitive habitats present. |
| Non-statutory designated sites | County | Scoped out | Whilst there are three LWSs within 2km of the site, subject to standard environmental protection measures in the form of a Construction Environmental Management Plan, no indirect effects on these sites are predicted.<br><br>The majority of the development will be on existing hardstanding, and whilst there will be some loss of habitats suitable for invertebrates which form part of the B-Lines site, the landscape plan will incorporate planting suitable for invertebrates and no significant effects are predicted. |
| Priority habitats | County | Scoped out | Whilst there are several priority habitat areas within 2km of the site, the closest of these is over 500m from the site and subject to standard environmental protection measures in the form of a Construction Environmental Management Plan, no indirect effects on these habitats are predicted. |
| **Non-priority habitats** | Site | **Scoped in** | Although the majority of the Proposed Development will be constructed on hardstanding, it will also result in the loss of grassland, scrub, woodland and individual trees and further assessment of the impacts is required. |

| | | | |
|---|---|---|---|
| **Amphibians** | National (Wales) | **Scoped in** | The Proposed Development is located within the Wrexham Industrial Estate and its environs, which supports a nationally important great crested newt population. Numerous breeding ponds occur within and adjacent to the Proposed Development, including a recently created mitigation area to the north east associated with adjacent development. Suitable terrestrial habitat, including grassland, scrub and woodland, is present within the Proposed Development and provides potential sheltering, foraging and dispersal habitat for great crested newts. Consequently, the Proposed Development forms part of a wider nationally important ecological resource and further assessment is required. |
| Bats | Local | Scoped out | No suitable roosting habitats will be removed and the majority of habitat which will be removed is hardstanding. Whilst some suitable habitats will be removed at the eastern boundary (combination of hardstanding, scrub, grassland and woodland) these are small areas which are unlikely to present important flightlines and subject to the careful use of artificial lighting, to be set out in a CEMP, no significant impacts are predicted. |
| [redacted] | [redacted] | [redacted] | [redacted] |
| **Breeding birds** | Site | **Scoped in** | Breeding birds may be present in the areas of grassland, scrub, trees and woodland which will be removed as part of the Proposed Development. |
| Invertebrates | Site | Scoped out | Whilst terrestrial invertebrates may be present in the areas of grassland, scrub and woodland, the affected areas are small and habitat loss is unlikely to affect the invertebrate assemblage significantly and landscape planting for the new development will include a range of plants suitable for terrestrial invertebrates, in particular, pollinators. |
| Otter and water vole | Site | Scoped out | The ditch on east of the site contains dense aquatic vegetation and is unlikely to be used by transient otter. The habitat surrounding the ditch offers suitability for transient otter but offers low suitability for otter holts.<br><br>The ditch on site offers limited suitability for water vole with the banks dominated by |

| | | | |
|---|---|---|---|
| | | | scrub and the ditch will not be affected by the Proposed Development. |
| Other mammals | Site | Scoped out | Whilst locally present, the site offers limited suitability for brown hare and polecat as scrub habitat is mostly present over wet ground which is likely wet throughout most of the year. Hedgehogs may be present and as such, reasonable avoidance measures will be implemented during construction, which should be set out in the project CEMP. |
| **Reptiles** | Site | **Scoped in** | Reptiles may be present in the areas of grassland, scrub and woodland which will be removed as part of the Proposed Development. |
| White-clawed crayfish and notable fish | Site | Scoped out | The habitat on site offers low suitability for white-clawed crayfish and notable fish. |

# 5 Impact Assessment

Potential impacts during construction and operation are listed in the table below.

**Table 7: Assessment of Likely Significant Effects during construction and operation (in the absence of mitigation)**

| Feature | Effect | Activity | Effect Description | Effect details | Scale & Magnitude | Effect level |
|---|---|---|---|---|---|---|
| **CONSTRUCTION** | | | | | | |
| **River Dee & Bala Lake SAC/SSSI** | Habitat degradation | General construction | The Proposed Development has the potential to generate dust which could be deposited onto SAC/SSSI habitats. However, at 1.9km (SSSI) and 2.5km (SAC) this is considered highly unlikely to occur. Similarly, there is potential for surface water run-off polluted with silt, oil or other chemicals to reach the designated site and cause temporary habitat degradation during construction. The only dispersal pathway is via the ditch at the eastern boundary of the site, which eventually connects with the River Dee via a network of ditches, over approximately 3.5km. Therefore, at this distance even should such a pollution event occur, it is unlikely to be perceptible at the designated site although impacts cannot be entirely ruled out. | Indirect, temporary, short-term, reversible, adverse effect | International & Negligible | Negligible adverse at International level |
| **Non-priority habitats** | Habitat loss through land take | Site clearance | Site clearance will require the removal of non-priority habitats including grassland, scrub, urban habitats (i.e. hardstanding) and individual trees. Based on current development plans, 2.88ha of non-priority habitat will be lost, of which approximately 1ha comprises grassland, scrub and woodland and the remainder comprises hardstanding. | Direct, medium-term, irreversible, adverse effect, compensated through habitat creation and management. | Site and Medium | Minor adverse at Site level |
| **Amphibians** | Killing/injury, disturbance | Site clearance | A small population of great crested newts (GCN) was identified during the GCN surveys and suitable aquatic habitats are present within and adjacent to the Proposed Development. Suitable terrestrial habitats, including grassland, scrub and woodland, are also present within the Proposed | Direct, medium-term, adverse effect, reversible in the medium term following habitat reinstatement and population recovery. | Regional and Medium | Moderate to Major adverse, significant at Regional level |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | Development and may be used by GCN for sheltering, foraging and dispersal. Consequently, site clearance and construction activities have the potential to result in killing, injury and disturbance of GCN, together with the temporary loss and fragmentation of terrestrial habitat forming part of the wider Wrexham Industrial Estate GCN resource.<br><br>Effects are significant at Regional level owing to the risk of killing, injury and disturbance of GCNs forming part of the nationally important population associated with Wrexham Industrial Estate and its environs. | | | |
| | Habitat loss | Site clearance | Approximately 1.4ha of suitable GCN habitats will be lost to the scheme. As suitable GCN habitats will be lost there will be an overall reduction in suitable amphibian habitat available locally for GCN which form part of the wider, nationally important, Wrexham Industrial Estate GCN resource. Although no breeding ponds would be directly affected, the loss and fragmentation of terrestrial habitat within the nationally important GCN resource results in a significant Regional effect. | Indirect, permanent, adverse effect, compensated through habitat creation and management. | Regional and Medium | Moderate to major adverse at Regional level |
| **Reptiles** | Killing/injury, disturbance | Site clearance | Habitats which are scheduled to be cleared include areas which are suitable for common reptile species. In the absence of mitigation, reptiles could be killed or injured during site clearance. | Direct, medium-term adverse effect, reversible in the medium-term (population recovery). | Site and Medium | Minor adverse at Site level |
| | Habitat loss | Site clearance | Suitable reptile habitat will be lost and there will be an overall reduction in suitable reptile habitat available locally. | Indirect, permanent, adverse effect, compensated through habitat creation and management.. | Site and Medium | Minor adverse at Site level |
| **Breeding bids** | Killing/injury, disturbance | Site clearance | Habitats which are scheduled to be cleared include habitats which are used by breeding birds. In the absence of mitigation, breeding birds could be killed or injured during site clearance. | Direct, permanent, medium-term, adverse effect, potentially reversible for species with strong populations in the | Site and Medium | Minor adverse at Site level |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | | medium-term but potentially irreversible for declining, at risk species. | | |
| | Habitat loss | | Suitable breeding habitat will be lost and there will be an overall reduction in suitable breeding habitat available locally. | Indirect, permanent, medium-term, adverse effect, compensated through habitat creation and management. | Site and Medium | Minor adverse at Site level |
| **OPERATION** | | | | | | |
| **River Dee & Bala Lake SAC/SSSI** | Habitat degradation | Operation | During operation, should drainage outfall to the onsite drain/ditch, there is a limited risk of contaminated/polluted run-off reaching the designated sites/s.<br><br>The only dispersal pathway is via the ditch at the eastern boundary of the site, which eventually connects with the River Dee via a network of ditches, over approximately 3.5km. Therefore, at this distance even should such a pollution event occur, it is unlikely to be perceptible at the designated site although impacts cannot be entirely ruled out. Please note an assessment of potential phosphorus impacts on the designated site is considered within a separate report (Curtins, 2026, 089023-CUR-XX-XX-T-C-92001). | Indirect, permanent, long-term, adverse effect. | International & Negligible | Negligible adverse at International level |
| **Amphibians** | Killing/injury | Operation | In the absence of mitigation, there is potential for accidental capture, killing and injury of GCNs in new drainage features such as gully pots. In the absence of mitigation, there is potential for accidental capture, killing and injury of great crested newts within new drainage features and other operational infrastructure. Although effects would be localised, they have the potential to affect the wider Wrexham Industrial Estate GCN population and are therefore assessed as Moderate adverse at the County level. | Direct, long-term, adverse effect. | County and Medium | Moderate adverse at County Level |
| **Bats and birds** | Disturbance through use of artificial lighting | Operation | In the absence of mitigation, there is the potential for new lighting to preclude use of retained habitats by bats and birds. | Indirect, permanent, long-term, adverse effect. | Local/Site and Medium | Minor adverse at Site/Local level |

# 6 Mitigation and Residual Effects

In the absence of mitigation, the impact assessment has identified impacts of negligible significance at international level and minor significance at site and local levels during construction and operation. The table below describes the mitigation or compensation proposed for each ecological feature which was scoped into the impact assessment. In addition, where relevant, mitigation is included for features which were not scoped into the impact assessment but where mitigation measures are required to ensure legislative compliance or as part of good practice.

**Table 8: Assessment of Likely Significant Effects (with mitigation)**

| Feature | Effect | Effect Pre Mitigation | Mitigation | Scale & Magnitude with Mitigation | Effect level |
|---|---|---|---|---|---|
| **CONSTRUCTION** | | | | | |
| **River Dee & Bala Lake SAC/SSSI** | Habitat degradation | Negligible adverse at International level | A CEMP will be prepared prior to the commencement of construction. The CEMP will include the following measures:<br>• Dust prevention and containment measures near designated sites, such as screening stockpiles of materials, deployment of windbreak netting and dampening exposed soils and dust generated, as appropriate.<br>• Contamination / pollution controls including that works will be undertaken in accordance with CIRIA Control of Pollution from Construction Sites (C532) and Guidance for Pollution Prevention and measures will include the provision of emergency spill kits, use of wheel washing, refueling away from drains and watercourses, use of sediment traps if necessary, careful use of concrete and containment of any polluted runoff. | International & Negligible | Negligible adverse at International level |
| **Non-priority habitats** | Habitat loss through land take | Minor adverse at Site level | Landscape planting will include native trees/shrubs. Retained habitats will be enhanced and managed in the long-term. Whilst enhancements will be predominantly for GCNs, this will also provide secondary benefits for habitats, for example control of the incursion of scrub and encouragement of a mosaic of habitats. | Site and Negligible | Negligible adverse at Site level |
| **Amphibians** | Killing/injury, disturbance | Moderate to Major at Regional level | The site will be cleared under licence from NRW with a series of mitigation measures proposed to minimise the risk of killing/injury including staged vegetation | Regional and Negligible | *Negligible adverse at Regional level. |

| | | | | | |
|---|---|---|---|---|---|
| | | | removal, erection of barrier fencing, trapping and ecological site supervision. | | |
| | Habitat loss | Moderate to Major at Regional level | Part of the site (1.6ha) will be retained as a GCN mitigation area (see GCN Survey Report and Outline Mitigation Strategy) and managed in the long term to provide favourable and enhanced habitat provision for GCNs in the long-term. Enhancement measures will include scrub control, the provision of refugia, hibernacula and provision of shallow scrapes. In light of the proposed long-term habitat management and monitoring works, it is assessed that there would be a small (beneficial) effect | Regional and Negligible | Negligible beneficial at Local level. |
| **Reptiles** | Killing/injury, disturbance | Minor adverse at Site level | Reasonable Avoidance Measures (RAMs) will be produced as part of the CEMP, to ensure the projection of reptiles during site clearance. | Site and Negligible | Negligible adverse at Site level |
| | Habitat loss | Minor adverse at Site level | Measures proposed above for Amphibians will provide secondary benefits for reptiles. | Site and Negligible | Negligible adverse at Site level |
| **Breeding birds** | Killing/injury, disturbance | Minor adverse at Site level | Vegetation clearance should be undertaken outside of the bird nesting season (March – August inclusive) to avoid any adverse impacts on breeding birds and to ensure legal compliance. If works need to be undertaken during this period, supervision will be required by a suitably qualified ecologist. An informed decision would then be made as to whether the vegetation clearance can be undertaken. If a bird nest is found, it must be left in situ and protected from works by the erection of an exclusion zone which the ecologist will advise on, until the young have fledged. All active bird nests identified will be communicated to contractors alongside all other relevant species information. | Site and Negligible | Negligible adverse at Site level |
| | Habitat loss | Minor adverse at Site level | Loss of habitat for feeding and roosting will be partially mitigated through the provision of new native trees and shrubs, as part of the landscape plan. Where possible, swift boxes (minimum of 4) should be erected on the new warehouse building and a range of bird boxes (minimum of 10), suitable for different species should be installed on trees in the retained habitat area. | Site and Negligible | Negligible adverse at Site level |

**Other General Mitigation during Construction**

Production of a Construction Environmental Management Plan, to include:

- Water pollution prevention measures during construction.
- Reasonable avoidance measures to protect bats, birds, hedgehogs and reptiles during site clearance.

| Feature | Effect | Effect Pre Mitigation | Mitigation | Scale & Magnitude with Mitigation | Effect level |
|---|---|---|---|---|---|
| **OPERATION** | | | | | |
| **River Dee & Bala Lake SAC/SSSI** | Habitat degradation | Negligible adverse at International level | The operational surface water drainage strategy will incorporate water treatment features (e.g. oil / petrol interceptors). It will also include fitting a penstock valve to isolate the system in the event of an environmental incident / chemical spillage. All site containment facilities and drainage systems will be designed, installed and maintained, in accordance with relevant standards (e.g. CIRIA's Design of containment systems for the prevention of water pollution from industrial accidents). | International & Negligible | Negligible adverse at International level |
| **Amphibians** | Killing/injury | Moderate adverse at County level | Where practicable, the use of gully pots and other vertical-sided drainage features will be avoided. Where these cannot be avoided, amphibian-friendly drainage design will be incorporated, including offset gullies, dropped kerbs and suitable grilles to facilitate the safe passage and escape of amphibians | County and Negligible | *Negligible adverse at County level. |
| **Bats and Birds** | Disturbance through use of artificial lighting | Minor adverse at Local level | The operational lighting strategy will be designed in collaboration with an ecologist to minimise light spill on retained habitats and prevent disturbance of bats and birds. The strategy will seek to deliver no significant increase in existing ambient light levels. In accordance with current best practice guidance. | Site/Local and Negligible | Negligible adverse at Site/Local level. |

** Notwithstanding the construction and operational effects identified above, the Proposed Development is not anticipated to adversely affect the maintenance of the Favourable Conservation Status of the local great crested newt population. No breeding ponds will be lost and, subject to the implementation of the proposed mitigation strategy and an NRW development licence, including long-term habitat management, the local population is expected to remain viable, with no detriment to the maintenance of its favourable conservation status, and continue to contribute to the nationally important great crested newt resource associated with Wrexham Industrial Estate and its environs.*

## 6.1 Cumulative Impacts

Immediately north of the site (planning reference P/2023/028) is a large commercial development which is currently under construction, with associated ponds and terrestrial habitats having already been removed under a Natural Resources Wales licence. As part of that development, compensatory mitigation has been implemented, including the creation of replacement habitat and a substantial number of new ponds to the east of the site. In comparison, the Proposed Development will not result in the loss of any aquatic habitat and the majority of habitat affected comprises existing hardstanding, with only limited areas of suitable terrestrial habitat requiring clearance. Surveys identified a small population of great crested newts (GCNs) within ponds adjacent to the site, and suitable terrestrial habitat within the application site may be used for sheltering, foraging and dispersal. However, subject to the implementation of appropriate mitigation and licensing measures for GCNs, together with mitigation for other habitats and protected species, the proposed works are not anticipated to give rise to significant cumulative ecological effects. The proposed mitigation has been designed to complement the wider mitigation strategy already implemented within Wrexham Industrial Estate, ensuring the Proposed Development does not result in a meaningful reduction in the integrity or connectivity of the nationally important GCN resource. Furthermore, the proposed Net Biodiversity Benefit (NBB) measures, including habitat enhancement and improved habitat connectivity along the eastern boundary, are expected to contribute to long-term ecological gains for GCNs, reptiles and terrestrial invertebrates, thereby offsetting localised habitat losses and contributing positively to the wider ecological network within the area.

# 7 Net Biodiversity Benefit

## 7.1 Background

Net Biodiversity Benefit (NBB) is a fundamental principle of sustainable development in Wales and seeks to ensure that development proposals not only avoid or minimise adverse ecological impacts but also provide measurable enhancements for biodiversity and ecosystem resilience. The requirement for biodiversity enhancement is embedded within Planning Policy Wales (PPW), the Environment (Wales) Act 2016 and the recently enacted Environment (Principles, Governance and Biodiversity Targets) (Wales) Act 2026, which collectively place a duty on public authorities and developers to maintain and enhance biodiversity and promote the resilience of ecosystems. In practice, this involves retaining valuable habitats where possible, enhancing existing ecological features, creating new habitats, and incorporating measures which provide long-term ecological gains for protected and priority species. NBB measures should contribute to stronger ecological networks, increased habitat connectivity and improved opportunities for species to forage, shelter and disperse across the wider landscape, whilst supporting the delivery of national biodiversity recovery objectives.

## 7.2 Summary of Impacts

The Proposed Development is to be constructed predominantly on existing hardstanding; however, the proposals will result in the loss of areas of grassland, scrub, woodland and several individual trees which may have impacts on amphibians, breeding birds, reptiles and terrestrial invertebrates.

## 7.3 Enhancement/habitat creation measures

In order to deliver a NBB, the scheme includes a range of habitat enhancement measures focused within a substantial retained habitat area along the eastern boundary of the site (see Figure 3). These measures are principally aimed at improving habitat suitability for great crested newts (GCNs), whilst also providing significant benefits for reptiles and terrestrial invertebrates. Proposed measures include selective scrub clearance to encourage grassland development and the establishment of a thicker litter layer suitable for amphibians and invertebrates, retention and reuse of cut scrub to create brash piles which will provide refugia and sheltering opportunities, installation of purpose-built hibernacula, and creation of several shallow scrapes to improve foraging opportunities and provide stepping stones between habitats. Collectively, these measures will enhance habitat structure and diversity, improve habitat connectivity and increase the ecological functionality of retained areas surrounding the development site in close proximity to a large number of offsite ponds, recently created as compensation for an adjacent development.

Although these enhancement measures are specifically intended to benefit GCNs, they will also provide suitable refuge, basking, sheltering and foraging opportunities for reptiles and a range of terrestrial invertebrate species. Further detail regarding the proposed mitigation and enhancement measures for great crested newts is provided within the accompanying Great Crested Newt Survey Report and Outline Mitigation Strategy.

Proposed landscape planting associated with the development will utilise native trees and shrubs of local provenance. Species selection will seek to maximise ecological value through the provision of nectar, pollen, berries and structural diversity, thereby supporting pollinating insects and other wildlife throughout the year. Native planting is also expected to attract night-flying invertebrates, which in turn may provide additional foraging opportunities for bats and other insectivorous species.

A number of bird nesting features are proposed as part of the development, including both general-purpose bird boxes and building mounted swift nesting boxes. The provision of general-purpose bird boxes is considered necessary mitigation for the loss of suitable nesting and foraging habitat

associated with the development. As these measures are required to address potential impacts arising from the scheme, they are not considered to contribute towards delivering a NBB.

In contrast, the proposed swift nesting boxes are targeted towards a Species of Conservation Concern and provide nesting opportunities that are currently absent from the site. As the boxes are not required to mitigate identified impacts of the development, their provision constitutes an enhancement measure. The swift boxes therefore represent an additional biodiversity benefit and may be included as a contribution towards the overall NBB delivered by the scheme.

# 8 Conclusions

In the absence of mitigation, negligible adverse effects are predicted on statutory designated sites, whilst negligible to minor adverse effects are predicted on non-priority habitats, amphibians, breeding birds and reptiles. Whilst none of the effects are considered to comprise significant effects, mitigation is proposed as good practice or to ensure legislative compliance.

Mitigation includes the designation of an area of retained habitat as a Ecological Habitat Management Area to provide enhanced habitat provision for a GCNs, which will also provide benefits for reptiles and terrestrial invertebrates. Other mitigation includes the implementation of RAMs during construction for a range of species, the provision of bird boxes on the new building and retained trees and sensitive design of drainage, construction and operational surface water and operational lighting strategies to prevent impacts on designated sites, amphibians, bats and birds.

Subject to the proposed mitigation and compensation measures, it is predicted that the Proposed Development would have no significant effects on important ecological features.

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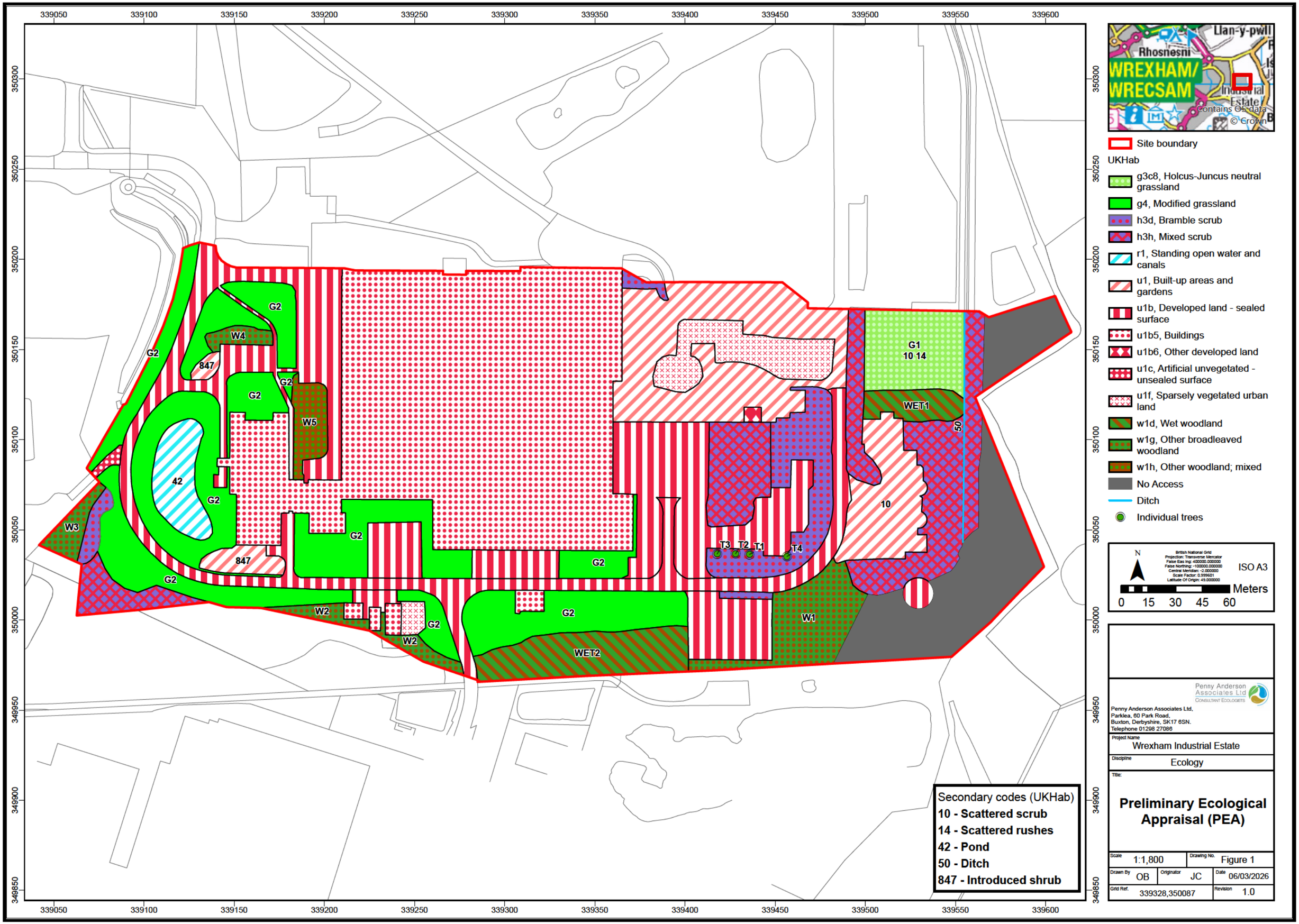
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# Figure 1 – UKHab Baseline Plan




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Discipline: Ecology

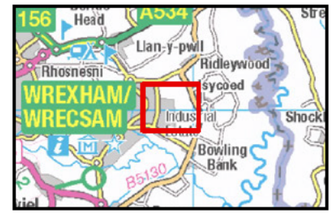
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# Preliminary Ecological Appraisal (PEA)

| Scale | Drawing No. | |
|---|---|---|
| 1:1,800 | Figure 1 | |
| Drawn By: OB | Originator: JC | Date: 06/03/2026 |
| Grid Ref.: 339328,350087 | Revision: 1.0 | |

# Figure 2 – Pond Location Plan




Site boundary

250m buffer around site boundary

500m buffer around site boundary

Ponds

Temporary ponds

Total pond count within 250m of site boundary: **49**

Total pond count within 500m of site boundary: **68**

N

British National Grid
Projection: Transverse Mercator
False Eas ing: 400000.000000
False Northing: -100000.000000
Central Meridian: -2.000000
Scale Factor: 0.999601
Latitude Of Origin: 49.000000

ISO A3

0 50 100 150 200 Meters

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Title:

**Pond scoping survey results: Ponds within 250m and 500m of site boundary**

| | | | |
|---|---|---|---|
| Scale: 1:5,000 | | Drawing No.: Figure 1 | |
| Drawn By: OB | Originator: RP | Date: 19/02/2026 | |
| Grid Ref. | | Revision: 1.0 | |

# Figure 3 – Ecological Habitat Management Area