
Birch Business Park
on behalf of Yeargate Ltd.
Ecological Assessment Report



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1 INTRODUCTION

1.1 Background

- 1.1.1 Avian Ecology Ltd. was commissioned by Yeargate Ltd. to undertake an Ecological Assessment in relation to the development of a new commercial building and the demolition of two existing industrial units at Birch Business Park, Whittle Lane, Heywood, Rochdale, henceforth referred to as 'the Site'.
- 1.1.2 The Site was subject to a planning application 16/01455/OUT for construction of new industrial units. This Ecological Assessment has been prepared to inform a new planning application to amend the proposals for the part of the Site where development has not yet been implemented, this will involve the demolition of existing Unit B and G, and replacement with a new Unit B.
- 1.1.3 The objectives of this report is to:
- Provide baseline information on the current habitats and ecological features both within the Site and immediate surrounding area;
 - Identify the proximity of any designated sites for nature conservation interest and provide an assessment of any potential effects the proposed development may have on these;
 - Identify the presence or potential presence of any protected species or habitats and provide an assessment of any potential effects the proposed development may have on these; and,
 - Provide recommendations for further pre-construction checks and / or mitigation measures, if required.
- 1.1.3 The Assessment has comprised an ecological walkover survey updating the previous Extended Phase 1 habitat survey of the Site and desk-based review, including information relating to the great crested newt (GCN) *Triturus cristatus* surveys within the wider Birch Business Park.
- 1.1.4 The Assessment refers to relevant legislation, planning policy and guidance as appropriate.

1.2 Site Overview

- 1.2.1 The Site is located to the southwest of Birch Business Park and comprises of Units B and G, which are surrounded by bare ground, hardstanding and amenity grassland, and bordered by trees, palisade fencing and landscape planting. Birch Business Park is surrounded by agricultural land with a mix of arable and improved grassland fields that are bordered by hedgerows, as well as occasional fields that appear to support rough grassland and scrub.

1.3 Legislative Framework, Planning Policy and Guidance

1.3.1 Reference has been made to the following key pieces of legislation, planning policy and guidance listed in **Table 1.1**.

Table 1.1: Key legislation, planning policy and guidance.

International
• Convention on Wetlands of International Importance especially as Waterfowl Habitat 1971 ('the Ramsar Convention) • Convention on the Conservation of European Wildlife and Natural Habitats 1979 ('the Bern Convention) • UNESCO convention on the protection of the World Cultural and Natural Heritage (1972)
National
• The Conservation of Habitats and Species Regulations 2017 (as amended) • The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 • The Wildlife and Countryside Act 1981 (as amended) • The Environment Bill 2020 (currently being processed through the House of Commons) • Countryside and Rights of Way Act 2000 • The Invasive Alien Species (Enforcement and Permitting) Order 2019 • Infrastructure Act 2015 • Protection of Badgers Act 1992 • Hedgerow Regulations 1997 • The Wild Mammals (Protection) Act 1996 • Natural Environment and Rural Communities (NERC) Act (2006) • The National Planning Policy Framework 2 (NPPF2, 2019) • 'Birds of Conservation Concern 4' (Eaton et al., 2015)¹ • The United Kingdom Biodiversity Action Plan (UK BAP) • BS 42020:2013 Biodiversity – Code of Practice for Planning and Development • Biodiversity Net Gain. Good practice principles for development²
Local
• Greater Manchester Biodiversity Action Plan

1.3.2 The Conservation of Habitats and Species Regulations 2017 (as amended) remains in place following the United Kingdom's (UK's) withdrawal from the European union (EU) with only relatively minor changes coming into force on 31st December 2020, with the 2017 regulations being transposed into national (England and Wales) legislation via the Conservation of Habitats and Species Amendment (EU Exit) Regulations 2019 which came into force on 31st December 2020. They are hereafter referred to as the 'Habitats Regulations'.

1.3.3 The 'UK Post-2010 Biodiversity Framework' succeeds the UK Biodiversity Action Plan (UK BAP) and 'Conserving Biodiversity – the UK Approach'. The lists of priority species and habitats agreed under UK

¹ Eaton, M., Aebischer, N., Brown, A., Hearn, R., Lock, L., Musgrove, A., Noble, D., Stroud, D. and Gregory, R (2015). *Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man*. British Birds, 108, pp708-746.

² <https://cieem.net/resource/biodiversity-net-gain-good-practice-principles-for-development-a-practical-guide/>

BAP still form the basis of much biodiversity work and are therefore considered within this report in the context of the objectives of the Biodiversity Framework. BAPs identify habitats and species of nature conservation priority on a UK (UK BAP) and Local (LBAP) scale. UK BAPs formed the basis for statutory lists of priority species and habitats in England under Section 41 (England) of the Natural Environment and Rural Communities (NERC) Act 2006, and so are also relevant in the context of this legislation.

- 1.3.4 This report is provided in accordance with the provisions of *British Standard 42020:2013 Biodiversity. Code of practice for planning and development*.

1.4 European Protected Species (EPS) Policies

- 1.4.1 European Protected Species (EPS), such as bats and GCN, receive full protection under the Habitats Regulations. This makes it an offence to:
- deliberately capture, injure or kill any EPS;
 - to deliberately disturb them; and,
 - to damage or destroy a breeding site or resting place.
- 1.4.2 In addition, the Wildlife and Countryside Act 1981 (as amended) makes it an offence to intentionally or recklessly disturb a EPS while it is occupying a structure or place which it uses for shelter or protection, or to obstruct access to any structure or place the species uses for shelter or protection.
- 1.4.3 Natural England is the primary enforcing body of the Habitats Regulations and therefore responsible for implementation and compliance in England. In December 2016 Natural England officially introduced four licensing policies throughout England³.
- 1.4.4 The four policies seek to achieve better outcomes for EPS and reduce unnecessary costs, delays and uncertainty that can be inherent in the current standard EPS licensing system. The policies are summarised as follows:
- **Policy 1;** provides greater flexibility in exclusion and relocation activities, where there is investment in habitat provision;
 - **Policy 2;** provides greater flexibility in the location of compensatory habitat;
 - **Policy 3;** provides greater flexibility on exclusion measures where this will allow EPS to use temporary habitat; and,
 - **Policy 4;** provides a reduced survey effort in circumstances where the impacts of development can be confidently predicted.
- 1.4.5 The four policies have been designed to have a net benefit for EPS by improving populations overall and not just protecting individuals within development sites. Most notably Natural England now recognises that the Habitats Regulations framework now applies to 'local populations' of EPS and not individuals/site populations.

³ <https://www.gov.uk/government/news/new-licensing-policies-great-for-wildlife-great-for-business>

2 METHODOLOGY

2.1 Desktop Study

- 2.1.1 A desktop study was undertaken to identify any known existing features or species of ecological importance within the study area (as defined below). The desk study included a review of relevant policy and guidance and sought to identify any statutory designated sites for nature conservation through a review of the Multi Agency Geographic Information for the Countryside (MAGIC)⁴ website.
- 2.1.2 A 2km search radius surrounding the Site boundary was adopted for all statutory designated sites.
- 2.1.3 Reference was also made to Ordnance Survey maps of the wider area and online aerial images (www.google.co.uk/maps) in order to determine any features of nature conservation interest in the wider area.
- 2.1.4 A review of previous surveys^{5, 6, 7} relating to the Site have also been made and relevant information is incorporated within the baseline section where necessary, to provide further background.

2.2 Field Survey

Extended Phase 1 Habitat Survey

- 2.2.1 An Extended Phase 1 habitat survey was undertaken in 2016 by C Baldock MRes ACIEEM, with A Logan MSc MCIEEM updating this with a walkover survey in August 2020. An additional walkover survey was undertaken on 20th August 2021 by K Love BSc; all surveyors are experienced ecologists.
- 2.2.2 The survey followed UK industry standard Joint Nature Conservation Committee (JNCC) Phase 1 Habitat Methodology (JNCC, 2010) and with reference to the Chartered Institute of Ecology and Environmental Management (CIEEM), Technical Guidance Series *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2017).
- 2.2.3 Habitats were mapped and described using a series of 'target notes' (TNs). The survey was extended to include the additional recording of specific features indicating the presence, or likely presence, of protected species, invasive species and other species of conservation significance.
- 2.2.4 The extent of the survey area and habitats present are detailed in **Figure 1**.

⁴ <https://magic.defra.gov.uk/MagicMap.aspx>

⁵ Avian Ecology (2016) *Birch Industrial Estate Preliminary Ecological Appraisal (PEA)*.

⁶ EVR Ecology (2018) *Birch Business Park - Great Crested Newt Survey Report and Method Statement*.

⁷ Avian Ecology (2020) *Birch Industrial Estate Preliminary Ecological Appraisal (PEA)*.

Preliminary Bat Roost Assessment

2.2.5 The Extended Phase 1 habitat / walkover survey included a preliminary roost assessment of trees and structures located within or adjacent to the survey area, to identify and record any suitable bat roost potential. Trees and structures were subject to a ground-based assessment to look for features that bats could use for roosting purposes and assess roost potential; their suitability for roosting bats was classified as follows (from Collins *et al.*, 2016, Table 4.1⁸):

- **Negligible:** Negligible habitat features on site likely to be used by roosting bats.
- **Low:** A structure with one or more potential roost sites that could be used by bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection and appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats.

A tree of sufficient size and age to contain potential roost features but with none seen from the ground or with only very limited potential.

- **Moderate:** A tree or structure with one or more potential roost site that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
- **High:** A tree or 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 periods of time due to their size, shelter, protection, conditions and surrounding habitat.

Limitations of Survey

2.2.6 An Extended Phase 1 habitat survey does not constitute a detailed botanical survey or faunal species list or provide a full protected species survey but, enables competent ecologists to ascertain an understanding of the ecology of the Site in order to:

- Broadly identify the nature conservation value of a site and assess the significance of any potential impacts on habitat/species recorded; and/or,
- Confirm the need and extent of any additional specific ecological surveys that are required to identify the true nature conservation value of a site (if any).

2.2.7 The GCN survey data is approaching three years old; however, the baseline is unlikely to have changed significantly and the current development is located over 250m from the nearest pond, as such, no significant constraints have been identified in relation to this Assessment.

⁸ Collins. J (ed). (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd ed). The Bat Conservation Trust, London.

3 BASELINE

3.1 Designated and Sites for Nature Conservation

Statutory Designated Sites

- 3.1.1 A review of MAGIC confirmed that the Site is not located within any statutory designated site for nature conservation.
- 3.1.2 The search identified a single statutory designated site, Hollins Vale Local Nature Reserve (LNR) within a 2km radius of the Site boundary. This LNR supports farmland with areas of woodland and wetland, with bird and butterfly interest and is situated c. 1.9km west.
- 3.1.3 The review of MAGIC also identified that the Site is located within the Site of Special Scientific Interest (SSSI) Impact Risk Zone (IRZ) of the Rochdale Canal which is designated as a SSSI and Special Area of Conservation (SAC). However, the development does not meet the criteria whereby Natural England would need to be consulted as the development would not generate significant air pollution and is not for general combustion processes.

3.2 Field Survey – Habitats and Flora

- 3.2.1 This section should be read in conjunction with the Phase 1 Habitat Plan presented as **Figure 1**, Target Notes (TNs) presented in Table 3.1 and photographs presented in **Appendix 1**.
- 3.2.2 The Site is located within the south-western part of Birch Business Park which supports an industrial-type storage warehouse (Unit B) and a smaller associated building (including Unit G).
- 3.2.3 The Site was dominated by buildings, bare ground and hardstanding. Areas of amenity grassland and landscape planting were present around the edges of Unit B and the Site perimeter fence. Lines of trees were present around the outer perimeter of the Business Park. Species included cypress *Cupressus* sp., cherry, *Prunus* sp., ash *Fraxinus excelsior*, rowan *Sorbus aucuparia*, field maple *Acer campestre*, alder *Alnus glutinosa*, pine *Pinus* sp. and horse chestnut *Aesculus hippocastanum*. For the most part trees were located outside the palisade perimeter fence, however, areas of scattered trees were located with the Site (as seen by TN1 and TN2).
- 3.2.4 No ponds or other waterbodies are located within or adjacent to the Site. Two moderate-sized ponds are present within the wider Business Park; pond P1 is located approximately 260m northeast and the pond P2 is approximately 375m north.
- 3.2.5 The wider area supports agricultural farmland, with the settlement of Heywood located to the northeast.

Table 3.1: Target Notes

Target Note	Comment	Photograph
TN1	Area of scattered trees located in tall ruderal. Tree species include cherry, alder, pine and cypress.	1
TN2	Areas of scattered trees located in amenity grassland. Tree species include field maple, pine, rowan, horse chestnut and alder.	2, 5

3.3 Protected and Notable Species

- 3.3.1 Species considered pertinent in the context of the proposed development are referenced in the corresponding sections below.

Birds

- 3.3.2 The Site is likely to support a suite of birds that is typical of suburban habitats. Suitable nesting habitat is considered to be limited to the small patch of tall ruderal and trees that make up the scattered trees and Site boundary. The Site is unlikely to support ground nesting species due lack of any ground cover, the Site's enclosed nature and high levels of disturbance from the Site's operational activities.

Bats

- 3.3.3 The Site provided limited foraging habitat for bats due to the majority consisting of hardstanding, amenity grassland and bare ground. The line of trees along the Site boundary may offer some foraging and commuting potential and they are connected to the surrounding agricultural landscape through a network of hedgerows that will provide suitable bat habitat.
- 3.3.4 The Site as part of an operational Business Park is likely to be artificially lit at night which will make the Site less attractive for some light sensitive species.
- 3.3.5 Habitats within the Site were considered to most closely fit the description for and of 'low suitability' in accordance with BCT guidance¹², as while the Site is well connected, the habitats within are only likely to be used by small numbers of foraging or commuting bats.
- 3.3.6 The buildings proposed to be demolished (Units B and G) were covered in profiled metal cladding and were considered to provide negligible suitability for roosting bats.
- 3.3.7 The trees within and immediately adjacent to the Site were generally young or semi-mature and lacked cavities or fissures that could be used by roosting bats. They were therefore assessed to have no or negligible bat roost potential.

Badger

- 3.3.8 No badger *Meles meles* setts or other signs of badger activity was recorded within the Site during the Extended Phase 1 habitat survey or updated walkover survey.
- 3.3.9 Badgers are likely to be present within the farmland within the surrounding landscape but are unlikely to regularly frequent to Site, given the lack of vegetation cover and high levels of disturbance. The industrial environment, may act as a sufficient deterrent for badgers.

Otter

- 3.3.10 No suitable habitats to support otter are present within or immediately adjacent to the Site.
- 3.3.11 Otter are not considered further within this Assessment.

Water Vole

- 3.3.12 No suitable habitats to support water vole *Arvicola amphibius* are present within or adjacent to the Site.
- 3.3.13 Water vole are not considered further within this Assessment.

Amphibians

- 3.3.14 No ponds were present within at least 250m of the Site boundary. Ponds within the wider Business Park have previously been subject to surveys which have confirmed GCN presence. An eDNA survey for pond P1 located in the northeast was conducted in August 2018, which returned positive results for GCN eDNA (laboratory Technical Report is provided in **Appendix 2**). Sweep netting was also undertaken in August 2018 as a supplementary survey method and this also confirmed GCN presence with the netting of an adult female GCN. It is unknown if GCN use the pond P2 found north of the Site, but it is likely that GCN will also use this waterbody, at least on occasion.
- 3.3.15 Both ponds were subject to previous Habitat Suitability Index (HSI) assessments, in accordance with the methodology outlined in the ARG UK Advice Note 5⁹. Both have been assessed to offer 'excellent' habitat suitability for GCN.
- 3.3.16 The Site, dominated by bare ground and hardstanding, offers negligible suitability as terrestrial habitat for amphibians. The boundary vegetation, mostly off-site behind palisade fencing may offer some suitability as terrestrial habitat for amphibian species and may provide some shelter and refuge.
- 3.3.17 As both ponds are located over 250m away from the Site boundary and since more favourable terrestrial habitat for amphibians is present closer to both ponds, it unlikely that GCN would disperse further towards the sub-optimal habitat found within the Site.

Reptiles

- 3.3.18 It is considered that the dominant habitats on Site (bare ground and hardstanding) offer negligible suitability for reptile species. The boundary features may offer some foraging habitats and, to a lesser extent, shelter and refuge opportunities for reptile species but it is considered unlikely that reptile species would be present on Site.

Other Notable Species

- 3.3.19 Habitats on Site may provide some opportunities for hedgehog *Erinaceus europaeus*, a priority species listed under the NERC Act, although any activity is likely to be restricted to boundary grassland and Site margins.

Invasive Non-native Species

- 3.3.20 Himalayan balsam *Impatiens glandulifera* was recorded growing through the Site's perimeter fencing (as illustrated in **Figure 1** and Photograph 6 in **Appendix 1**)

⁹ Amphibian and Reptile Groups of the UK (2010). ARG UK Advice Note 5 Great Crested Newt Habitat Suitability Index. ARG UK.

4 DISCUSSION

4.1 Overview

- 4.1.1 This section seeks to identify the potential for effects on habitats and protected and notable species which could be considered as reasonably likely to occur. The Site's proximity to statutory designated sites and potential effects on their qualifying interests is discussed. Measures are proposed for the protection of sensitive habitats and species throughout the construction phase of development and recommendations are made for further pre-construction surveys and mitigation, if required.

4.2 Designated Sites and Habitats

- 4.2.1 The Site does not lie within or adjacent to any statutory designated site for nature conservation. Due to the type of development and its industrial setting, the Site is considered to be located sufficiently distant from any statutory designated site (nearest being Hollins Vale LNR located approximately 1.9km west) whereby direct or indirect impacts can be discounted.
- 4.2.2 The Site falls within a SSSI IRZ but the development does not meet the criteria whereby the Local Authority is required to consult with Natural England.
- 4.2.3 The Site was considered of low ecological value, dominated by amenity grassland, bare ground and hardstanding, with small areas of tall ruderal, scattered trees, ephemeral/short perennial and trees along the Site boundaries.
- 4.2.4 The development will result in the loss of buildings and an area of hardstanding within the footprint of the development. Small areas of amenity grassland will also be lost or damaged during construction.
- 4.2.5 With the inclusion of an appropriate landscape scheme and wildlife features as discussed under relevant species, the small-scale loss of low value habitat due to development can be suitably mitigated with additional enhancement provided for local biodiversity.

4.3 Protected and Notable Species

Birds

- 4.3.1 All wild birds, their nests and eggs are, with few exceptions, protected under the Wildlife and Countryside Act 1981 (as amended). Schedule 1 of the Act, confers special protection with increased penalties for certain species.
- 4.3.2 It is unlikely that any Schedule 1 bird species listed under the Wildlife and Countryside Act 1981 (as amended) will use the Site for nesting.
- 4.3.3 Potential for breeding birds within the Site are limited to boundary vegetation and the small section of tall ruderal, with species most likely to occur being common and widespread.
- 4.3.4 The main potential effect of construction is the displacement (albeit temporary) of foraging and nesting birds and loss of nest sites. In order to avoid impacts on nesting birds and to ensure compliance with the provisions of the Wildlife and Countryside Act 1981 (as amended), it is recommended that construction and any associated vegetation removal takes place outside of the bird breeding season (March-August inclusive). If such works are necessary during the breeding season any suitable nesting habitat to be affected by works should be checked by a suitably experienced ecologist prior to works commencing. Works would be permitted to proceed only when the ecologist is satisfied that no offence will occur under the legislation.

Bats

- 4.3.5 All species of British bat are protected under the Wildlife and Countryside Act 1981 (as amended) and the Habitats Regulations. The Act and Regulations make it an offence to kill, injure or take a bat; damage, destroy or obstruct access to any place that a bat uses for shelter or protection; and intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection.
- 4.3.6 Seven bat species in the UK are also listed as species of principal importance for the purpose of conserving biodiversity under Section 41 of the NERC Act 2006.
- 4.3.7 The existing buildings and boundary trees were considered to provide no or negligible bat roost potential; therefore, no impact on roosting bats is anticipated.
- 4.3.8 Bats may forage or commute over the Site; however, the majority of this activity is likely to occur along the boundary tree lines which will be retained and enhanced with new tree planting as part of the proposals for the Site. As a result, the development will not result in the loss of foraging opportunities for bats or fragmentation of commuting routes.
- 4.3.9 The Site is located within an operational business park and therefore is likely to be well lit most evenings. As far as is practically possible, it is recommended that external lighting from the proposed development be directed away from boundary features to avoid or minimise light spill in accordance with BCT guidance (2018) *Bats and Lighting in the UK: Bats and the Built Environment Series*¹⁰.
- 4.3.10 The proposed development is unlikely to adversely affect the conservation status of any local bat population.

Badger

- 4.3.11 Badgers are afforded legislative protection under the Protection of Badgers Act 1992. It is an offence to kill or harm a badger, and to damage an active sett.
- 4.3.12 No setts or other signs of badger activity were identified within or immediately adjacent to the Site. While habitats within the Site were sub-optimal for badgers, badgers are likely to be present in the surrounding landscape.
- 4.3.13 Badger activity can show seasonal patterns of use and badgers can quickly establish new setts, or re-use setts previously thought to be inactive. Considering the highly mobile nature of badgers and the seasonality of their activity, it is recommended on a highly precautionary basis that a pre-construction badger survey should be completed by a suitably qualified ecologist prior to the commencement of development to check for any newly constructed setts in and surrounding the Site.
- 4.3.14 It is proposed that standard good practice measures will be adopted during construction that will safeguard badgers as well as other wildlife that may occasionally be present on Site (e.g. foraging outside construction site hours). These will include covering any excavations left open over night or fitting with a means of escape (set no steeper than a 45° angle), and safe storage of materials in secure compounds or stores.

Amphibians

- 4.3.15 GCN and their habitats are protected under the Wildlife and Countryside Act 1981 (as amended) and the Habitats Regulations. The Act and Regulations make it an offence to kill, injure or take a great

¹⁰ Bat Conservation Trust. (2018). *Bats and Lighting in the UK: Bats and the Built Environment Series*

crested newt; damage, destroy or obstruct access to any place that a great crested newt uses for shelter or protection; and intentionally or recklessly disturb a great crested newt while it is occupying a structure or place that it uses for shelter or protection. GCN and common toad are listed as priority species under Section 41 of the NERC Act 2006 and UK BAP.

- 4.3.16 No waterbodies are located within the Site but ponds P1 and P2 are located within the wider Business Park located at approximately 260m and 370m from the Site respectively. An eDNA survey and netting undertaken in 2018 confirmed the presence of GCN at pond P1. Although this data is three years old, it is considered sufficient to inform this Assessment; Natural England's Protected Species Policy 4 allows for reduced survey effort in circumstances where the impacts of development can be confidently predicted as is the case for this application.
- 4.3.17 The bare ground and hardstanding within the Site and within the footprint of the proposed development provides negligible habitat suitability in terms of terrestrial habitats for amphibians, as it provides sub-optimal foraging opportunities and lacks areas of shelter and refuge. The boundary vegetation, mostly off-site may provide some habitat suitability but these will be retained and protected.
- 4.3.18 As such, it is considered unlikely that amphibian species would be present within the development footprint or affected by the development. This view is strengthened as both ponds are located over 250m away from the Site and separated by built development, with the terrestrial habitat closer to the ponds providing more favourable terrestrial habitat (foraging and places of shelter and refuge). This suggests that extended dispersal is less likely, particularly given the sub-optimal habitats found within the Site.
- 4.3.19 The proposed development includes extended landscaping along the Site boundaries which may provide improved terrestrial habitats in the future as the planting matures.
- 4.3.20 The proposed development is not considered likely to have any adverse effect on local amphibian populations, including GCN. It is proposed that development will adopt Reasonable Avoidance Measures (RAMs) as outlined in **Appendix 3**. If in the unlikely event that a GCN is subsequently found, the development could potentially be undertaken under the remit of a Low Impact Class Licence (LICL) which allows for the removal of discrete refugia (e.g. rubble piles from areas of hard-standing).

Reptiles

- 4.3.21 Widespread reptile species namely the common lizard *Zootoca vivipara*, slow-worm *Anguis fragilis*, grass snake *Natrix helvetica* and adder *Vipera berus* are protected against killing, injuring and sale under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). These species are also listed as priority species under Section 41 of the NERC Act 2006.
- 4.3.22 The current habitats on Site dominated by bare ground and hardstanding offer poor habitat suitability for reptiles, lacking foraging opportunities and cover from predators. The Site is considered unlikely to support reptile species and therefore the proposed development is not anticipated to have any adverse effect on local reptile populations. The adoption of RAMs as outlined in **Appendix 3** will protect any individual animals in the unlikely event that a reptile is found during construction.

Other Notable Species

- 4.3.23 The Site and surrounding area may potentially support hedgehog; however, this species is not considered to be a significant constraint in terms of the proposed development.
- 4.3.24 The lack of any vegetation structure across the majority of the Site is likely to deter hedgehog; however, if present, the proposed landscaping around the Site boundaries will most likely offer

improved foraging opportunities, as well as places for shelter and refuge compared to the current baseline.

4.4 Invasive Non-native species

- 4.4.1 Himalayan balsam was recorded growing into the Site through the southwest fencing (as illustrated in **Figure 1** and Photograph 6 in **Appendix 1**). Himalayan balsam is a non-native invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981; under the Act it is against the law to cause or allow a plant listed on Schedule 9 of the Wildlife and Countryside Act 1981 to spread in the wild.
- 4.4.2 A pre-construction survey should be undertaken to establish if any further stands of invasive non-native species have established within the Site. Upon identification, invasive species present within or immediately adjacent to proposed working areas should be cordoned off with fencing erected around the stand(s) (with suitable signage), to highlight the presence of invasive species and avoid the accidental spread.
- 4.4.3 The identified stand of Himalayan balsam should be subject to a regime of targeted vegetation control / removal on an annual basis. Small infestations can be controlled by hand pulling before the plants flower (generally before June). The plant is shallow rooted and easy to uproot. Pulled or cut plants should be left in the open to allow the stems and roots to dry out and die quickly. If there are large volumes of pulled plants, they should be left in piles to compost, and covered with a tarpaulin or similar to prevent re-growth.

5 SUMMARY - ECOLOGY PRIORITY MATRIX

5.1.1 **Table 5.1** summarises the ecological constraints and opportunities associated with the development, and makes recommendations for pre-construction survey work and / or mitigation measures as required.

Table 5.1: Ecological Constraints and Opportunities

Feature		Details
Designated sites for Nature Conservation	Constraints & Opportunities	a. The Site does not form part of any statutory designated site; b. The Site falls within a Natural England (NE) SSSI Impact Risk Zone but does not meet the criteria where the LPA must consult with NE. c. No adverse effects are anticipated on any statutory designated site.
	Protection Measures	d. N/A
Habitats & Flora	Constraints & Opportunities	e. The main habitat within the development footprint comprises of amenity grassland, bare ground and hardstanding, bordered by fencing and trees. Habitats within the Site are considered to be of low value to wildlife, supporting little species diversity. f. It is unlikely that there will be any material loss of ecological value at a Site level. Landscape planting and inclusion wildlife features as discussed under relevant species will enhance the Site for local biodiversity.
	Legislative Compliance – HeRegs*	g. N/A.
	Protection Measures	h. All retained trees within the vicinity of construction areas will be protected during construction works in-line with BS 5837:2012 <i>Trees in relation to design, demolition and construction</i>. i. Standard measures to ensure runoff control and pollution prevention will be implemented; these measures will safeguard retained habitats including aquatic habitat and habitats within the wider environment.
Birds	Constraints & Opportunities	j. The boundary vegetation and small patch of tall ruderal may provide suitable bird nesting and foraging opportunities typical of the habitat and location.
	Legislative Compliance – WCA**	k. If vegetation works or removal of structures are necessary during the breeding season, a nest check should be undertaken by a suitably experienced ecologist prior to works commencing. Works would be permitted to proceed only when the ecologist is satisfied that no offence will occur under the legislation. l. If a nesting species is identified, suitable work exclusion zone will be established around nest site where required, in line with best practice guidance and in consultation with the advising ecologist.
Bats	Constraints & Opportunities	m. The proposed development is unlikely to disturb roosting bats. n. Site boundary features are likely to be used foraging and commuting bats but these Site features will be protected and retained as part of the proposed development.
	Legislative Compliance – WCA**, HR***	o. If bats are found at any point during construction, works should cease immediately and ecologist informed who will advise on the appropriate course of action.
Badger	Constraints & Opportunities	p. No setts or other field signs were identified within or immediately adjacent to the Site.
	Legislative Compliance – PBA****	q. It is recommended that a pre-construction badger survey should be completed by a suitable qualified ecologist immediately prior to the commencement of

Feature		Details
		development/site clearance works to check for any newly constructed setts in and surrounding the Site r. It is recommended that precautionary good practice measures be adopted during construction to protect badgers and other wildlife.
Otter	Constraints & Opportunities	s. No suitable habitats on or adjacent to the Site. Not considered to be present.
	Legislative Compliance – WCA**, HR***	t. N/A
Water Vole	Constraints & Opportunities	u. No suitable habitats on or adjacent to the Site. Not considered to be present.
	Legislative Compliance – WCA**	v. N/A
Amphibians	Constraints & Opportunities	w. No waterbodies on Site. GCN recorded present at pond located approximately 260m north-east of the Site. x. The majority of habitats within the Site are considered to provide negligible suitability for amphibians (including GCN), dominated by bare ground and hardstanding. Amphibians are considered unlikely to be present within the development footprint. The development is not anticipated to have any adverse effect on local amphibian populations.
	Legislative Compliance - WCA*, HR**	y. It is considered that the implementation of a series of RAMs will be appropriate in relation the proposed development. z. If in the unlikely event that a GCN is discovered, the development could be undertaken under the remit of a Low Impact Class Licence (LICL) which allows for the removal of discrete refugia (e.g. rubble piles form areas of hardstanding).
Reptiles	Constraints & Opportunities	aa. The majority of habitats within the Site are considered to be sub-optimal for reptiles dominated by bare ground and hardstanding; reptiles are considered unlikely to be present within the development footprint and the development not anticipated to have any adverse effect on local reptile populations.
	Legislative Compliance - WCA*, HR**	bb. Implementation of Reasonable Avoidance Measures (RAMs) to prevent inadvertent harm to individuals.
Other Species	Constraints & Opportunities	cc. Hedgehog could potentially be present; however due to higher suitable habitats outside the Site it is considered that presence within the Site is low. Protection measures implement for badger (see point T) will also protect hedgehogs. dd. The proposed landscape planting will provide enhanced opportunities for hedgehog.
Invasive Species	Legislative Compliance - WCA*,	ee. Himalayan balsam was the only invasive, non-native species recorded within the Site. ff. Pre-construction checks for new colonisation by invasive species should be undertaken. Measures will be employed to eradicate/control species such as Himalayan balsam and prevent the accidental introduction or spread.

Legislative Compliance Key

* The Hedgerows Regulations 1997

**Wildlife & Countryside Act 1981 (as amended)

***The Conservation of Habitats and Species Regulations 2019 (Amendment) (EU Exit)

****Protection of Badgers Act 1992

FIGURES

Figure 1: Phase 1 Habitat Plan

Figure 2: Proposed Layout



Legend

- Site
- Target note (TN*)

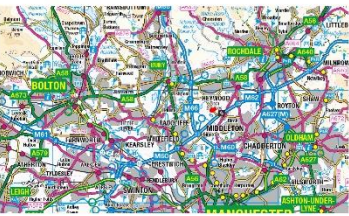
Habitats

- A Amenity grassland
- Bare ground
- Building
- Ephemeral/short perennial
- Hardstanding
- Spoil
- Tall ruderals
- Pond
- Fence
- Line of trees
- Other habitat: Himalayan balsam

Rev	Date	Description	MR	MJR
00	02/09/2021			

This map contains data from the following sources:
 Ordnance Survey (2017)
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Consultative Systems: British National Grid
 Projection: Transverse Mercator
 Datum: OSGB 1936
 Units: Metres

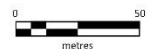


YEARGATE

HABITAT PLAN



Avian Ecology, Suite 3c Walnut Tree Farm, Northwich Road, Lower Stretton
 Walsley, Cheshire
 M11 1LH
 Tel: 01843 300 5110
 www.avianecology.co.uk





General Notes

All site dimensions shall be verified by the Contractor on site prior to commencing any works.

Do not scale from this drawing.

Only work to written dimensions.

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— Planning Boundary
Site Area 6.11 Acres (24,726 sqm)

— Business Park Boundary

DRAFT

Revision: P01 Issued for Planning 01/08/21 JB

Scale: 1:500 @ A2

Status: PLANNING

Drawn by: JB

Date: 27.08.21

Client: Yeagate Ltd

Project: Birch Business Park - Unit B

Drawing Description: Proposed Site Plan

Drawing No. 21033_PL03 Rev. P01

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APPENDIX 1: Photographs



Photograph 1

Area of tall ruderal with scattered trees (TN1) and perimeter fencing in the background.



Photograph 2

Area of amenity grassland with pockets of scattered trees (TN2), as well as hardstanding along the west of Unit B.



Photograph 3

A region of spoil and bare ground north of Unit B.



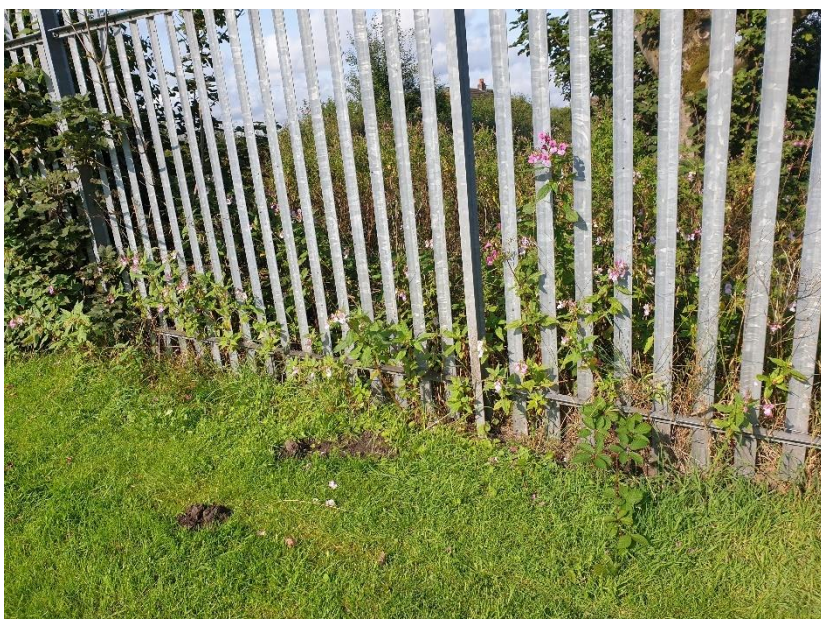
Photograph 4

Hardstanding and Unit G with fencing and amenity grassland present. The line of trees outside of the Site is visible in the background.



Photograph 5

Hardstanding located between Unit B (left) and Unit G (right). An individual tree is located in a small section of amenity grassland the background (TN2).



Photograph 6

Boundary palisade fence with Himalayan balsam emerging through into the Site.



Photograph 7

An area of hardstanding and bare ground north of Unit B.



Photograph 8

An area of bare ground north of Unit B, currently being used for equipment storage. Unit B is slightly visible in the background.



Photograph 9

A narrow strip of ephemeral/short perennial adjacent to the northern edge of Unit B.

APPENDIX 2: eDNA Technical Report



Folio No: E3881
Report No: 1
Order No: AE18128
Client: Avian Ecology
Contact: Rachel Hughes
Contact Details: rachel.hughes@avianecology.co.uk
Date: 09/08/2018

TECHNICAL REPORT

ANALYSIS OF ENVIRONMENTAL DNA IN POND WATER FOR THE DETECTION OF GREAT CRESTED NEWTS

Date sample received at Laboratory: 06/08/2018
Date Reported: 09/08/2018
Matters Affecting Results: None

RESULTS

Lab Sample No.	Site Name	O/S Reference	SIC	DC	IC	Result	Positive Replicates
2613	Pond 1, Birch Industrial Estate	-	Pass	Pass	Pass	Positive	2

SUMMARY

When Great Crested Newts (GCN); *Triturus cristatus* inhabit a pond, they deposit traces of their DNA in the water as evidence of their presence. By sampling the water, we can analyse these small environmental DNA (eDNA) traces to confirm GCN habitation, or establish GCN absence.

The water samples detailed below were submitted for eDNA analysis to the protocol stated in DEFRA WC1067 (Latest Amendments). Details on the sample submission form were used as the unique sample identity.

APPENDIX 3:



RESULTS INTERPRETATION

Lab Sample No.- When a kit is made it is given a unique sample number. When the pond samples have been taken and the kit has been received back in to the laboratory, this sample number is tracked throughout the laboratory.

Site Name- Information on the pond.

O/S Reference - Location/co-ordinates of pond.

SIC- Sample Integrity Check. Refers to quality of packaging, absence of tube leakage, suitability of sample (not too much mud or weed etc.) and absence of any factors that could potentially lead to results errors. Inspection upon receipt of sample at the laboratory. To check if the Sample is of adequate integrity when received. Pass or Fail.

DC- Degradation Check. Analysis of the spiked DNA marker to see if there has been degradation of the kit since made in the laboratory to sampling to analysis. Pass or Fail.

IC- Inhibition Check- PCR inhibitors can cause false results. Inhibitors are analysed to check the quality of the result. Every effort is made to clean the sample pre-analysis however some inhibitors cannot be extracted. An unacceptable inhibition check will cause an indeterminate sample and must be sampled again.

Result- NEGATIVE means that GCN eDNA was not detected or is below the threshold detection level and the test result should be considered as no evidence of GCN presence. **POSITIVE** means that GCN eDNA was found at or above the threshold level and the presence of GCN at this location at the time of sampling or in the recent past is confirmed. Positive or Negative.

Positive Replicates- To generate the results all of the tubes from each pond are combined to produce one eDNA extract. Then twelve separate analyses are undertaken. If one or more of these analyses are positive the pond is declared positive for the presence of GCN. It may be assumed that small fractions of positive analyses suggest low level presence but this cannot currently be used for population studies. In accordance with Natural England protocol, even a score of 1/12 is declared positive.

METHODOLOGY

The laboratory testing adheres to strict guidelines laid down in WC1067 Analytical and Methodological Development for Improved Surveillance of The Great Crested Newt, Version 1.1

The analysis is conducted in two phases. The sample first goes through an extraction process where all six tubes are pooled together to acquire as much eDNA as possible. The pooled sample is then tested via real time PCR (also called q-PCR). This process amplifies select part of DNA allowing it to be detected and measured in 'real time' as the analytical process develops. qPCR combines PCR amplification and detection into a single step. This eliminates the need to detect products using gel electrophoresis. With qPCR, fluorescent dyes specific to the target sequence are used to label PCR products during thermal cycling. The accumulation of fluorescent signals during the exponential phase of the reaction is measured for fast and objective data analysis. The point at which amplification begins (the Ct value) is an indicator of the quality of the sample. True positive controls, negatives and blanks as well as spiked synthetic DNA are included in every analysis and these have to be correct before any result is declared so they act as additional quality control measures.

The primers used in this process are specific to a part of mitochondrial DNA only found in GCN ensuring no DNA from other species present in the water is amplified. The unique sequence appropriate for GCN analysis is quoted in DEFRA WC 1067 and means there should be no detection of closely related species. We have tested our system exhaustively to ensure this is the case in our laboratory. We can offer eDNA analysis for most other species including other newts.

Analysis of eDNA requires scrupulous attention to detail to prevent risk of contamination. Kits are manufactured by SureScreen

Scientifics to strict quality procedures in a separate building and with separate staff, adopting best practice from WC1067 and WC1067 Appendix 5. Kits contain a 'spiked' DNA marker used as a quality control tracer (SureScreen patent pending) to ensure any DNA contained in the sampled water has not deteriorated in transit. Stages of the DNA analysis are also conducted in different buildings at our premises for added security.

SureScreen Scientifics Ltd also participate in Natural England's proficiency testing scheme and we also carry out inter-laboratory checks on accuracy of results as part of our quality procedures.

Reported by: Sam Humphrey

Approved by: Derry Hickman

End Of Report

APPENDIX 3:

Amphibian and Reptile Reasonable Avoidance Measures (RAMS)

Method Statement

Legislation

Great crested newts (GCN) and their habitat are fully protected under national (*Wildlife & Countryside Act 1981* (as amended)) and European law (The Habitats and Species Regulations 2017, as amended) as a European Protected Species (EPS).

The adder, common lizard, grass snake and slow worm are protected against intentional killing or injuring under Schedule 5 of the *Wildlife and Countryside Act 1981* (as amended).

The combined legislation makes it illegal to:

- Intentionally or deliberately capture, kill or injure a great crested newt or reptile.
- Intentionally or recklessly damage, destroy or obstruct access to any place used for shelter and protection including resting and breeding places, whether occupied by a great crested newt or not;
- Deliberately, intentionally or recklessly disturb a great crested newt when in a place of shelter
- Possess a great crested newt, or any part of it, unless acquired lawfully;
- Sell, barter, exchange or transport or offer for sale great crested newts or parts of them.

Anyone carrying out activities which may affect EPS must consider the presence of EPS, their breeding sites and resting places. Good practice guidance is available from Natural England, which advises on assessing for the presence of EPS, and the possible impact of operations (including strategies for avoiding committing offences). If an offence cannot be avoided, then a derogation licence should be sought from Natural England.

Method Statement Objectives

The objectives of this method statement are therefore to:-

- Avoid committing an offence under the above legislation; and,
- To ensure that favourable conservation status of great crested newt or reptiles is maintained.

Any development related activities on the site, such as vegetation clearance or excavations in areas of potentially suitable habitat may potentially affect these species. As a result, safeguards must be implemented to protect these species and the Method Statement below details measures to be implemented to ensure these objectives are achieved. If these measures are followed then both objectives will be achieved without the need for a derogation license from Natural England.

Method Statement

To ensure legal compliance and to ensure the favourable conservation status of the species is not compromised, the following measures will be adopted throughout the construction period of the development:

- Site operatives will be informed by 'tool box' talk at the start of the construction period on ecological responsibilities and what to look out for during development works.
- Prior to the commencement of construction, the Site will be walked by an ecologist (Ecological Clerk of Works (ECow)) to identify any potential suitable habitats and a visual inspection will be made and guidance provided to the Site Manager on Site specific safe working practices.

- The removal of any potential places of shelter (e.g. scattered debris, logs etc.) will be undertaken with care so as to avoid incidental harm or injury occurring on any reptile or amphibian individuals and will be subject to a visual search undertaken by the appointed ECoW prior to removal.
- Site operatives will keep a watching brief throughout the construction phase; especially during initial ground clearance operations.
- Between March and October inclusive (when amphibians and reptiles are active) –
 - An escape route for animals that enter any trench / excavation must be provided, especially if left open overnight. Ramps should be no greater than of 45 degrees in angle. Ideally, any holes should be securely covered.
 - All excavations left open overnight or longer should be checked for animals prior to the continuation of works or infilling.
 - Any excavated material should be placed on boards or sheeting to reduced damage to the grass sward (if present). If left overnight this material should be searched prior to being used as infill.
- If a GCN is found, work must stop immediately and contact should be made with a licensed, qualified ecologist, who will liaise with Natural England.