



UPDATE ECOLOGY APPRAISAL

WREXHAM GLYNDWR UNIVERSITY,
PLAS COCH CAMPUS

09 December 2022

Conditions 12 and 22 of P/2018/0666

Sambrook Associates Ltd

Sambrook Associates Ltd

5 Barnhill Grange | Old Coach Road | Barnhill | Broxton | Cheshire CH3 9JJ
sambrookassociates.co.uk

Report prepared by	Rebecca Sambrook
Date	09-12-2022
Report Reference	R001
Version	V1
Status	Draft for Client comment

This report has been prepared by Sambrook Associates Ltd on behalf of Cassidy and Ashton in connection with the development at Wrexham Glyndwyr University, Plas Coch Campus and takes into account their particular instructions and requirements. It is not intended for, and should not be relied on, by any third party and no responsibility is undertaken to any third party.

Contents

1	INTRODUCTION.....	4
1.1	Background Information.....	4
1.2	Site Description.....	5
2	LEGISLATION AND PLANNING POLICY.....	6
3	METHODOLOGY.....	9
3.1	Introduction.....	9
3.2	Desk-top Study.....	9
3.3	Walk-over Survey	9
3.4	Bat Scoping Survey.....	10
3.5	Bat Nocturnal Surveys.....	10
3.6	Limitations	12
4	RESULTS	13
4.1	Introduction.....	13
4.2	Desk-top Study.....	13
4.3	Walk-over Survey	13
4.4	Bat Scoping Survey.....	13
4.5	Bat Nocturnal Surveys.....	16
4.6	Appraisal of Potential Effects.....	17
5	CONCLUSION & RECOMMENDATIONS.....	20
6	REFERENCES.....	21

1 INTRODUCTION

1.1 Background Information

1.1.1 Sambrook Associates Ltd was instructed by Cassidy and Ashton to undertake an update Ecology Appraisal in relation to the proposed development at Wrexham Glyndwr University, Plas Coch Campus. The site comprises a complex of buildings and hard and soft landscaping. The proposal comprises the redevelopment of parts of the campus, including demolition of redundant buildings and the construction of new buildings, car parking, infrastructure and landscaping.

1.1.2 The aim of the appraisal is to provide sufficient ecological information to discharge Condition 12 of the planning permission P/2018/0666 as follows:

No part of the development shall commence until an updated Ecological Assessment as carried out by a qualified ecologist has been submitted to and approved in writing by the Local Planning Authority. The report shall include an Ecological Method Statement demonstrating / identifying any measures of protection / compensation / mitigation and demonstrate management in the short or long term. The recommendations as approved shall be implemented in strict accordance with timescales to be agreed before any part of the development commences on site.

1.1.3 This report also covers the requirements of Condition 22:

Prior to commencement of development, and/or any works of demolition, including any works of site clearance, an updated bat survey (no older than 6 months) shall be submitted to and approved in writing by the Local Planning Authority. If bats are found to be active on the site, the report shall provide details of a suitable mitigation strategy and determine whether a development licence is required. Thereafter, the development shall be carried out in accordance with the approved details.

1.1.4 As part of the Appraisal, an updated desk-top study, site walk-over of the Site, bat scoping survey incorporating external and internal inspection of the buildings and bat activity surveys were undertaken. This report provides the results of these, as well as an appraisal of the potential effects the proposed development may have on biodiversity, and recommendations for further survey, mitigation and enhancement, where required. Since this is an updated appraisal, reference to previous Ecological reports as submitted with the planning application are also made. Where conditions or status of ecological receptors remains the same as the previous ecological reports, this will be stated and no further detail will be provided. Where there is change, or where it was considered appropriate to provide either more detail or consolidation of information provided in previous reports, this is presented within this report.

1.1.5 Previous survey reports considered and referred to in this report are:

- The Environmental Dimension Partnership Ltd (June 2019); Glyndwr University Plas Coch Campus, Mold Road, Wrexham; Ecological Appraisal; and
- RPS (November 2018); Plas Coch Campus, University of University; Bat Assessment Report.

1.1.6 . The objectives of the study were to:

- Provide update baseline information on the current ecological features both on-site and in the immediate surrounding area (up to 30m where accessible);
- Identify the presence or potential presence of key protected species or habitats and provide an appraisal of any potential effects that the proposed development may have on these; and
- Provide recommendations for further pre-construction survey work and / or mitigation measures if required and present opportunities for habitat enhancement.

1.1.7 In consideration of the nature of the proposed work (principally development of the buildings), the assessment focuses on bats and birds but other key ecological receptors are also assessed.

1.2 Site Description

1.2.1 The Site is located in the centre of the city of Wrexham, in an urban setting. The Site comprises a complex of buildings of various ages, character and structure with landscaping (amenity grasslands, shrubbery and trees), car parking and internal roads.

1.2.2 The proposed development is hereby referred to as the Site and comprises the land within the red-line boundary. The walk-over survey covered an area greater than this (where access permitted) to look at connectivity of the site to surrounding areas and how nearby habitats may influence the use of the buildings by bats.

2 LEGISLATION AND PLANNING POLICY

2.1.1 Many sites, animals and plants are protected by European and/or UK legislation either because of their decline across Europe and the UK or due to the persecution they have placed upon them by negligent or illegal acts such as baiting or trade. Legislation is also in place to prevent the spread of introduced or non-native invasive species and harmful weeds. When undertaking an appraisal of a proposed development, such legislation is taken into account as follows.

- **European:** Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive'); and Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds (codified version of Directive 79/409/EEC as amended) (the 'Birds Directive').
- **UK (England & Wales):** The Conservation of Habitats and Species Regulations 2017, as amended (the 'Habitat Regulations') which transposes the Habitats Directive in UK law. Since 1st January 2021, the UK is no longer a member of Europe but since the Habitats Directives are embedded into UK statute, The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 was published and still applies in England and Wales; The Wildlife and Countryside Act 1981 (as amended); the Countryside and Rights of Way Act (CROW) 2000; the Protection of Badgers Act 1992; the Natural Environment and Rural Communities Act (NERC) (2006) and the Environmental Protection Act (EPA) 1990.

2.1.2 Species such as bats, great crested newts, otter, water vole, reptiles, birds and badgers are all protected to varying degrees under this legislation.

2.1.2 The Environment (Wales) Act 2016 introduced an enhanced biodiversity¹¹⁹ and resilience of ecosystems¹²⁰ duty (Section 6 Duty). This duty applies to public authorities in the exercise of their functions in relation to Wales and will help maximise contributions to achieving the well-being goals. The Nature Recovery Action Plan supports this legislative requirement to reverse the decline in biodiversity, address the underlying causes of biodiversity loss by putting nature at the heart of decision-making and increasing the resilience of ecosystems by taking specific action focused around the 6 objectives for habitats and species.

2.1.3 In addition to legislation, there are also national and local planning policies pertaining to the protection of biodiversity. Planning Policy Wales (PPW) Edition 11 (February 2021) states: 'the planning system has a key role to play in helping to reverse the decline in biodiversity and increasing the resilience of ecosystems, at various scales, by ensuring appropriate mechanisms are in place to both protect against loss and to secure enhancement. Development plan strategies, policies and development proposals must consider the need to:

- support the conservation of biodiversity, in particular the conservation of wildlife and habitats;
- ensure action in Wales contributes to meeting international responsibilities and obligations for biodiversity and habitats;

- ensure statutorily and non-statutorily designated sites are properly protected and managed;
- safeguard protected and priority species and existing biodiversity assets from impacts which directly affect their nature conservation interests and compromise the resilience of ecological networks and the components which underpin them, such as water and soil, including peat; and
- secure enhancement of and improvements to ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks.'

- 2.1.4 To accompany the PPW, Technical Advice Note 5 (TAN5) demonstrates how local authorities, developers and stakeholders can deliver sustainable development that does not result in losses to biodiversity and takes the opportunity to protect and enhance it. Wrexham council also have their own guidance and local policy to promote ecological resilience in their decision making.
- 2.1.3 Under the NERC Act, local authorities (and other public bodies) have a duty to conserve biodiversity. The Act confers responsibility on the local authority to take the protection of priority habitats and species (as listed in Section 41) into consideration when making a planning decision. Habitats listed in this section include eutrophic standing waters, rivers, lowland meadows and lowland mixed deciduous woodland. Species listed in this section include great crested newt *Triturus cristatus*, sky lark *Alauda arvensis*, hedgehog *Erinaceus europaeus*, otter *Lutra lutra*, soprano pipistrelle *Pipistrellus pygmaeus* and red squirrel *Sciurus vulgaris*. Full habitats and species' lists can be found at the Natural History Museum website, nhm.ac.uk or jncc.defra.gov.uk.
- 2.1.4 The RSPB's Birds of Conservation Concern 3' (Eaton et al., 2009) is also taken into consideration when undertaking this appraisal.
- 2.1.5 Because of the type of development proposed, it is usual that bats are the most likely protected species affected and so the legislative and licensing obligations pertaining to bats are described in more detail below.
- 2.1.6 All bat species are protected in the UK under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). The species is also protected under Annex II of the Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (the EC Habitats Directive). This has been transposed into UK law by the Conservation of Habitats and Species Regulations 2010 (as amended) in England and Wales. Bats are referred to as European Protected Species (EPS).
- 2.1.7 It is an offence to deliberately capture, injure or kill a bat; intentionally or recklessly disturb in a way that would affect their local distribution or abundance, or affect their ability to survive, or breed. It is also an offence to damage or destroy a bat roost and to possess, advertise, control, transport, sell, exchange or offer for sale/exchange any live or dead bat or any part of a bat.
- 2.1.8 If you wish to undertake works that would affect an EPS then you will need a licence. Natural Resources Wales (NRW), in exercise of the powers conferred under regulation 53(1) and 56(3) (a)

of the Conservation of Habitats and Species Regulations 2010, may issue licences for the following purposes:

- Preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;
- Preventing the spread of disease;
- Preventing serious damage to livestock, foodstuffs for livestock, crops, vegetables, fruit, growing timber or any other form of property or to fisheries; to allow people to carry out activities which would otherwise be illegal;

2.1.9 Before issuing a licence under the Habitats Regulations, the licensing authority must be satisfied that “there is no satisfactory alternative” to the work as proposed and, that the proposed actions “will not be detrimental to the maintenance of the population of the species at a favourable conservation status (FCS)”.

2.1.10 To ensure these requirements are met, the licensing authority must have enough information to complete an assessment of the application. This includes sufficient survey data so that the roost and how it is used by bats is understood and impacts upon the roost are appropriately assessed so that mitigation and/or compensation can be designed into the proposed development that will ensure the bat population can be incorporated and maintained in the long term.

3 METHODOLOGY

3.1 Introduction

- 3.1.1 To inform this Ecological Appraisal, a desk-top study, site walk-over survey, bat and bird scoping survey and bat activity surveys were conducted during July to September 2022.
- 3.1.2 Rebecca Sambrook BSc. (Hons) MCIEEM led surveys of the Site. Rebecca is a Full Member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and adheres to that organisation's Code of Professional Conduct. Rebecca has a Natural England Bat Level 1 ref: 2022-10249-CL17-BAT. Rebecca has gained over 20 years-experience as a professional ecologist, conducting surveys and authoring reports including PEAs, Ecological Impact Assessment chapters, Habitat Regulations Assessments, Biodiversity Management Plans and other specialist technical reports, including mitigation design.
- 3.1.3 Since the last surveys conducted on the site were undertaken in either 2018 (bat activity surveys) or 2019 (general update phase 1 survey), it was considered necessary to provide up dated information on bats, birds, invertebrates and invasive species in particular since these are the key potential constraints identified. But the walk-over survey also reviewed the likelihood of other species on the basis of potential changing baseline between 2018/19 and 2022.

3.2 Desk-top Study

- 3.2.1 The desktop study involved a search on Defra's 'MAGIC' website for statutory sites within 1km of the development site. The centre of the Site (Ordnance Survey Grid Reference SJ32725116) was used for the search.

3.3 Walk-over Survey

- 3.3.1 The walk-over survey comprised recording of habitats within the Site. The survey also included an update assessment for the potential for protected and notable species, and invasive species such as Japanese knotweed *Fallopia japonica* and Himalayan balsam *Impatiens glandulifera*.
- 3.3.2 The walk-over survey was conducted on 22 July 2022. The weather was warm with an average temperature of 21°C.
- 3.3.3 The survey was not a full Phase 1 Habitat survey; due to the urban nature of the site and the previous ecological reports, this was considered unnecessary. The Site and immediately adjacent areas (up to 30m) were searched for evidence of protected species that may occur in this area such as bats, birds, badgers *Meles meles* and any invasive plants or animals. It is agreed with the EDP report that the following surveys can be scoped out:
- Botanical, breeding bird, bat activity (foraging and commuting), dormouse, great crested newts, otter and water vole, reptile, notable mammals and invertebrates.

- 3.3.4 The justification for scoping out these species includes unsuitable habitat and lack of connectivity to suitable habitat.
- 3.3.5 Photographs are included within this report. Plant names follow the third edition of the New Flora of the British Isles (Stace, 2010). The common name of the plant is stated first and is followed by the Latin name, on the first occasion that it is used. Only the common name is used subsequently.

3.4 Bat Scoping Survey

- 3.4.1 The survey followed the methodology set out in the Bat Conservation Trust's Bat Surveys for Professional Ecologists: Good Practice Guidelines (Collins, 2016). The survey was carried out by Rebecca Sambrook on 23 July 2022.
- 3.4.2 Eight buildings due for either demolition or refurbishment were inspected both externally and internally (where access was granted) for evidence of the presence of bats. The survey started with an examination of the external parts of the building to locate potential roosting features such as lifted/missing roof material, gaps around soffits, barge boards and similar. Evidence such as staining, droppings, urine splashes and individuals were also searched for. With no evidence externally, an internal inspection was undertaken, searching for the same evidence. Note that none of the buildings had loft spaces and therefore internal inspection was very limited. Ten minutes was also spent listening (detector and ear) for squeaking noises that bats make when in their roost.
- 3.4.3 Note, the numbering system of the buildings varies between different reports. The building numbers in this report refer to those found on the Proposed Demolition Plan (Day Architectural Ltd, 2018). Where they are different from the previous ecology reports, the previous building references are provided in brackets e.g. B05 (RPSB07). Table 3.1 provides the results of the bat scoping survey and also identifies which buildings have been surveyed previously.

3.5 Bat Nocturnal Surveys

- 3.5.1 During the building inspection, no bat droppings were found in any of the buildings. The buildings were considered to be either Low or Negligible suitability for bats in accordance with the suitability criteria set out in the Bat Conservation Trust's *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2016). A single dusk survey was undertaken on all low suitability buildings to identify if any bats are using the buildings. Buildings with negligible suitability were scoped out from further survey.

Table 3.1: Suitability of buildings for bats

Building	Suitability	Dusk Survey (no. surveyors)
1 (RPS11)	Low	Yes (5)
2 (RPS10)(EDP02)	Low	Yes (4)
3 (RPS08)	Negligible	No
4 (RPS09)	Negligible	No
5 (RPS07)	Negligible	No
6 (RPS06)	Negligible	No
7	Not assessed (not part of development)	
8 (EDP08)	Low	Yes (5) (surveyed together)
9 (EDP09)	Low	
10	Negligible	No

- 3.5.2 The nocturnal surveys were undertaken during appropriate weather conditions. The dusk surveys commenced 15 minutes before sunset until 1.5 hours after.
- 3.5.3 The buildings were each surveyed by four or five surveyors who were positioned strategically so that good coverage of the buildings was achieved.
- 3.5.4 The surveyors each used a Wildlife Acoustics' EM Touch Pro detectors. The data was analysed by the surveyors and reviewed by Rebecca Sambrook.
- 3.5.5 The following Table 3.1 provides details of the surveys.

Table 3.2: Survey Data Buildings 1, 2, 8 & 9

Variable	Building		
	8&9	2	1
	Date	Date	Date
	24/08/2022	25/08/2022	31/08/2022
Survey type	Dusk	Dusk	Dusk
Sunrise/Sunset	20:20	20:17	20:03
Time started	20:05	20:02	19:48
Time completed	21:50	21:47	21:35
Start weather	Dry, warm, still	Dry, mild, still	Dry, warm, still
Start Temperature	19°	20°	18°
Start rain	0	0	0
Start cloud	8	0	0
Start wind	0	1	1
End weather	Dry, mild, still	Dry, mild, still	Dry, warm, still
End temp	19°	17°	16°
End rain	0	0	0
End cloud	8	1	0
End wind	0	2	1

3.6 Limitations

3.6.1 No significant limitations were encountered during the surveys.

4 RESULTS

4.1 Introduction

- 4.1.1 This section provides a commentary on the data collected during the desk-top study and surveys undertaken in 2022.

4.2 Desk-top Study

- 4.2.1 There is one statutory designated site within 1km of the Plas Coch campus; a Site of Special Scientific Interest (SSSI), Gatewen Marsh which is located over 500m to the west. No impact pathways, neither terrestrial or aquatic have been identified and impacts on designated sites is not considered further.

4.3 Walk-over Survey

- 4.3.1 The Site is a university campus which comprises buildings, infrastructure, car parking and soft landscaping. This has not changed since the previous ecology reports.
- 4.3.2 Active nest building or current/historic nests of passerines were not recorded within the buildings but some of the shrubs could support nests and the flat roofs of the buildings also likely support nests of gulls. Young gulls on top of roofs were observed which indicates nesting.
- 4.3.3 No evidence of badgers or other mammals was found which concurs with previous surveys. This species is not considered further.
- 4.3.4 *Cotoneaster horizontalis* continues to be present around the site and forms part of the soft landscaping scheme. No evidence of other non-native or invasive species was recorded.
- 4.3.5 The honey bee colony was present in building 8. These continue to occupy to vents within the walls.

4.4 Bat Scoping Survey

- 4.4.1 The bat scoping survey provides up to date information on each of the buildings that are proposed for some form of works. This consolidates the information provided in previous ecology reports.

Table 4.1: Photographs of Buildings

Building Ref	Photographs	Description
1 (RPSB11)		Flat roofed building. Minor gap between concrete cladding and fascia. Low suitability.
2 (RPSB10) (EDPB02)		Pitched and flat roofed building. Internally, pitched roof appears to be structurally open to the apex but with a suspended ceiling in the main hall. Some tiles of the suspended ceiling were missing and a distant inspection was made with torch and binoculars. No suitability internally for bats. Externally, gaps and cracks in some of the brickwork, particularly on the eastern elevation. Low suitability.
3 (RPSB08)		Flat roof, no potential roosting features identified. Negligible suitability.

4 (RPSB09)		Flat roof, no potential roosting features identified. Negligible suitability.
5 (RPSB07)		Flat roof, no potential roosting features identified. Negligible suitability.
6 (RPSB06)		Flat roof, no potential roosting features identified. Negligible suitability.
8 (EDPB08)		Flat roof, limited suitability but there are air vents at regular intervals approx. 3m high. Though many of these are occupied by bees. Low suitability.

9 (EDPB09)		Flat roof, limited suitability but there are air vents at regular intervals approx. 2.5m high. Though many of these are occupied by bees. Gaps above lintels are not deep enough to support bats. Crack and gap in brickwork on north eastern corner of the building (as per EDP report). Low suitability.
10		Wooden shed, no potential roosting features identified. Negligible suitability.

- 4.4.2 The Site and surrounding habitats provide limited foraging and commuting habitat for bat species and is poorly connected to surrounding habitats.
- 4.4.3 None of the mature trees adjacent to proposed works exhibit suitable potential roosting features and therefore they were scoped out from survey.

4.5 Bat Nocturnal Surveys

- 4.5.1 The surveys took place during the core bat survey season meaning that maternity, summer and transient roosts would all be active at the time of the survey, if they were present.
- 4.5.2 Activity across the Site was very low across all survey nights. There was a peak count of five bat passes on the night of the 24 August whilst surveying buildings 8 & 9. Four of these passes were attributed to a common pipistrelle *Pipistrellus pipistrellus* which was briefly foraging within the quadrangle garden area to the west of building 8. The fifth pass was a noctule *Nyctalus noctula* overhead. Otherwise, most surveyors did not record any bats during the survey nights with some recording just one bat pass, attributed to either noctule or common pipistrelle.
- 4.5.3 It was noted during the surveys that security lighting fixed onto the buildings creates a very bright environment around the campus which is not conducive to bat roosting or general activity.

Common pipistrelle are generally tolerant of some light but the brightness around the site clearly deters even the light tolerant species.

4.5.4 No further surveys are required.

4.6 Appraisal of Potential Effects

4.6.1 The proposal includes the demolition of buildings 1, 2, 3, 4, 5, 8, 9 and 10 and a new landscaping scheme. All boundary features will remain in-situ.

4.6.2 Overall, the Site itself offers limited value to protected and notable species. With the exception of a single foraging common pipistrelle and no more than one pass of a common pipistrelle and noctule throughout the surveys, and nesting gulls, no protected or notable species have been recorded, and due to the distance from higher quality habitat and the nature of the development footprint, protected and notable species are unlikely to occur on any regular basis.

4.6.3 **Habitats:** The majority of the amenity grassland and ornamental planting (including the cotoneaster) will be lost during the construction period. Similarly, forty-three mature, semi-mature and young trees will be felled. The scheme incorporates the retention of boundary habitats and all remaining trees within the campus.

4.6.4 To protect retained habitats, a scheme of protection is to be implemented to protect habitats from damage during the construction period. As a minimum, good site management will be implemented in line with the Considerate Constructors Scheme, Code of Considerate Practice. Key principals of good management to protect habitats include:

- Being organised, clean and tidy; always net skips to prevent materials and rubbish from blowing around the site and onto adjacent habitats.
- Identifying, managing and promoting environmental issues.
- Seeking sustainable solutions, and minimising waste, carbon footprint and resources.
- Minimising the impact of vibration, and air, light and noise pollution.
- Protecting the ecology, the landscape, wildlife, vegetation and water courses.

4.6.5 Boundary vegetation is to be fenced off with Heras fencing (or similar fencing) to act as a robust physical barrier to plant machinery. Retained trees are to be protected to BS5837:2012.

4.6.6 **Cotoneaster:** is a non-native species and is listed as a Schedule 9 species under the Wildlife and Countryside Act 1981. Therefore, during site clearance, special measures are to be implemented to avoid committing an offence by spreading this species onto other land and into the wild. A qualified invasive species removal contractor should be engaged to undertake the removal. The following control methods are options to be implemented.

- Mechanical Control:

- Young seedlings can be pulled however larger plants will develop multiple stems from the large root mass making it difficult to remove the whole plant
- Root mass can be excavated to remove entire plant and prevent regrowth
- Material should be chipped or burnt on site or removed to licensed landfill as controlled waste
- Chemical Control:
 - It is possible to spray smaller plants with herbicide however chemical uptake in larger plants is reduced; addition of wetting agents improves uptake of herbicide
 - Larger plants should be stump treated after cutting to prevent regrowth
- Soils containing cotoneaster species are classified as controlled waste and should be disposed of at licensed landfill.

4.6.7 The development is accompanied by a landscape plan (Landscape GA Sheets 1-3, TPM Landscape, 08 November 2022) which shows the soft landscaping design. This design incorporates the following measures:

- Proposed wildflower meadow: Emorsgate EM2 Standard General Purpose Meadow Mix or similar approved. Sowing rate of 4/gm²;
- 159 proposed standard trees in soft landscape;
- 11 proposed small trees in soft landscape; and
- 49 proposed trees in hard paved (covered by permeable resin bound with tree grille and underground cell system).

4.6.8 On the basis the above measures are implemented sufficiently, long term effects on habitats are not anticipated.

4.6.9 **Bats:** effects on bats are not anticipated. Roosting was not recorded in any of the buildings. Low level foraging was recorded. Foraging habitat within the quadrangle will be disrupted temporarily but there are other areas in the wider campus for foraging bats to utilise in the short term and the proposed landscape scheme will secure foraging opportunities in the long term. A bat sensitive lighting scheme will be implemented which will ensure the lighting is fit for purpose, but also not cause unreasonable or unnecessary upwards glare to encourage a darker environment around campus which is more conducive to bat foraging and commuting behaviours. Condition 10 provides more detail in this regard.

4.6.10 **Birds:** the only presumed nesting behaviour observed during the surveys was gulls on the roof of buildings 8 and 9. It is possible that birds may build nests in the surrounding vegetation at some point between the survey and start of proposed works. It is advised that the disturbance and/or destruction of breeding birds and their nests is illegal under the Wildlife and Countryside Act 1981 (as amended). Any vegetation/building works, should be commenced outside of the nesting bird season which includes the months of March to August inclusive. If vegetation/building works is to be commenced at any other time of year, the retained ecologist must be contacted to

undertake a nesting bird survey. If any nests are identified and the nest is likely to undergo any disturbance, the nests must remain intact and undisturbed until young have fledged. With this in mind, effects on nesting birds are not anticipated.

- 4.6.11 **Honey bees:** As per the recommendation in the EDP report; the removal of honey bees from building 8 is to take place prior to demolition works. This is to be carried out by a specialist bee removal contractor who can translocate the bees to a suitable home. Under no circumstances should these bees be deliberately harmed.
- 4.6.12 **Toolbox talk:** a toolbox talk will be provided to Site personnel prior to the commencement of works. The talk will include information regarding the protection of species, habitats, legal implications, their responsibilities and what to do if a protected species such as bats or nesting birds are encountered.
- 4.6.13 **Construction audits:** will be undertaken every six months throughout the works programme to include a check of the condition of protection measures and advise on the installation of enhancement measures such as the installation of bat and bird boxes. A mid-term and end-term compliance audit will be undertaken by an independent ecologist as per Condition 11.
- 4.6.14 **Enhancement:** The proposed scheme includes the installation of bat and bird boxes which will provide a net gain in roosting and nesting opportunities. The following boxes are proposed:
- 10no. Schwegler 1B nest box or similar, comprising a mix of 32mm, 26mm and oval holes. These are to be installed on suitable retained trees to the boundaries, at least three metres off the ground to reduce risk of predators and human interference.
 - 5no. Schwegler 2FN bat boxes or similar to be installed on suitable retained trees to the boundaries, at least three metres off the ground to reduce risk of predators and human interference.
- 4.6.15 **Site contractors, directors, owners, other personnel and their agents are reminded that many species and habitats are protected by law, and to kill, injure or harm such species and their habitats is a criminal offence. Custodial sentences and/or large financial penalties are expected if you break the law. Protected species and habitats commonly found on development sites include (but not limited to):**
- bats including their roosts in buildings and trees;
 - birds including their nests;
 - badgers including their setts which can be damaged or destroyed up to 25m from the sett entrance.
- 4.6.16 **If the presence of ANY protected species is identified during the course of the works, particularly bats and birds (due to the nature of this development), works must stop immediately, and the retained ecologist contacted for advice.**

5 CONCLUSION & RECOMMENDATIONS

- 5.1.1 The Site has been subject to an update assessment in 2022; it is concluded that the proposed development is unlikely to result in significant effects on habitats or species.
- 5.1.2 The following recommendations are made.
- 5.1.3 The avoid effects on retained habitats and trees the following is recommended.
- **Recommendation:** good site management is implemented in line with the Considerate Constructors Scheme, Code of Considerate Practice.
 - **Recommendation:** barrier fencing is installed at the outset of site works to protect retained features, this includes trees to BS5837:2012.
- 5.1.4 The following recommendation is made in respect of birds.
- **Recommendation:** to prevent impacts on nesting birds, vegetation/demolition works shall occur outside of the nesting bird season i.e. not during the months of March through to August inclusive. If vegetation/demolition is required to commence during this time, the vegetation/buildings shall first be checked by a competent Ecologist and only if no nests are found can works commence. If nests are found, they will remain in-situ and undisturbed until the young have fledged.
- 5.1.5 The enhancement scheme comprises the following measures:
- **Recommendation:** install bird and bat boxes as per the specification detailed above in Section 4.
 - **Recommendation:** the landscaping scheme is to include the planting of native species, preferably of local provenance, and species that provide a good nectar source for invertebrates. This includes grassland seed mixes, trees and shrubbery, as described in section 4.
- 5.1.6 Taking into consideration these recommendations, long term negative effects on biodiversity are not anticipated and the proposed development actually gives rise to biodiversity enhancement opportunities within the Site, improving biodiversity at a local level, particularly in the number of trees. No further surveys are required.

6 REFERENCES

- BSI (2013). *BS 42020 Biodiversity. Code of practice for planning and development*.
- CIEEM (2013). *Guidelines for Preliminary Ecological Appraisal*. Winchester. CIEEM.
- Collins, J (ed.). 2016. *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust. London.
- Department for Communities and Local Government (2012). *National Planning Policy Framework*.
- English Nature (2001). *Great Crested Newt Mitigation Guidelines*. Peterborough.
- Entwistle, A.C; Racey, P.A; Speakman, J.R. 1997. *Roost Selection by the brown long-eared bat Plecotus auritus*. Journal of Applied Ecology.
- Harris, S., Cresswell, P. and Jefferies, D.J., (1998). *Surveying for Badgers*. Mammal Society Occasional Publication 9.
- Institute of Environmental Assessment (1995). *Guidelines for Baseline Ecological Assessment*. IEA. London.
- Mitchell-Jones, A.J. 2004. *Bat Mitigation Guidelines*. English Nature, Peterborough
- JNCC, (2010). *Handbook for Phase 1 Habitat Survey: A technique for environmental audit (reprint)*. Joint Nature Conservation Committee, Peterborough.
- The Bat Conservation Trust, 2012. *Bats and Buildings – Bats and the Built Environment Series*. BCT, London
- Natural England (2010). *European Protected Species and the Planning Process*.
- Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M., (2000). *Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus)*. Herpetological Journal 10 (4), 143-155.
- Royal Society for the Protection of Birds (2009). *Birds of Conservation Concern (3)*.
- Stace, C. (2010). *New Flora of the British Isles*. Third Edition. Cambridge University Press.
- www.nhbs.com