



Report Type: Ecological Appraisal

Client Name: Mr Jon Kent

Site Address: Wilmore
The Chequer
Bronington
Wrexham
SY13 2JQ

Report Reference: EA 22-05 128.1

Date of Issue: 4th August 2022

Author: Ben Jones BSc (hons) MSc
ben@greenscape.pm 07525 809943





Report Details	
Classification	Ecological Appraisal
Status	Draft
Reference	EA 22-05 128.1

Version History	
Report Reference	Date of Revision
EA 22-05 128.1	4 th August 2022

Quality Assurance		
	Name	Date
Author:	B. Jones BSc(hons) MSc Senior Consultant	2 nd August 2022
Reviewed by:	L. Maggs BSc(hons) Senior Consultant	4 th August 2022

Greenscape Environmental Ltd.
Registered Office: Long Acres, Lyth Bank, Shrewsbury, Shropshire, SY3 0BW
Company Reg number: 5364283

This report is the copyright of Greenscape Environmental Ltd. Any unauthorised reproduction or usage by any person without the specific authority of Greenscape is prohibited.

The report should be read in its entirety.

Questions arising from the survey report should be directed to the author of the report who will be pleased to clarify any technical issues raised.

Whilst the surveyors make every reasonable effort, Greenscape Environmental Ltd cannot guarantee that all protected species have been identified and survey results are definitive. Many species are cryptic and transitional in habit.

Reports are considered valid for one year for planning purposes, after which time further survey information may be required.

Greenscape Environmental Ltd can provide advice and support for recommendations and planning conditions.

The use of this report or survey data for any form of formal submission to an NGO or other authority implicitly implies acceptance of the terms and conditions.



Table of Contents

1	EXECUTIVE SUMMARY.....	1
1.1	Purpose of the Report	1
1.2	Methodology	1
1.3	Key Impacts and Mitigation Measures.....	1
1.4	Conclusion	1
2	INTRODUCTION	2
2.1	Project Background	2
2.2	Purpose of the Report	2
2.3	Site Context and Location	2
3	METHODOLOGY	3
3.1	Desk Study	3
3.2	Field Survey	3
3.3	Species Survey.....	3
3.4	Constraints of the Survey	3
4	BASELINE ECOLOGICAL CONDITIONS.....	5
4.1	Nearby Features of Importance	5
4.2	Habitats on Site.....	6
4.3	Bats.....	7
4.4	Other Mammals.....	10
4.5	Birds	10
4.6	Amphibians.....	10
5	DESCRIPTION OF PROPOSED DEVELOPMENT.....	12
6	IMPACTS, ENHANCEMENTS AND MITIGATION	13
6.1	Nearby Features of Importance	13
6.2	Habitats on Site.....	13
6.3	Bats.....	13
6.4	Other Mammals.....	15
6.5	Birds	15
6.6	Amphibians.....	15
7	CONCLUDING REMARKS.....	16
APPENDIX A	– SURVEYOR DETAILS.....	17
APPENDIX B	– METHODOLOGY	18
APPENDIX C	– POLICY	21
APPENDIX D	– BIBLIOGRAPHY	24



Table of Figures

Figure 4.1. Identifying any designated areas near site, a 1km buffer is shown	5
Figure 4.2. Wilmore from the southwest	6
Figure 4.3. Bare ground adjacent to the property	6
Figure 4.4. Garage and fences	6
Figure 4.5. Loft surfaces free of bat droppings	7
Figure 4.6. Roof lining and cobwebbing	7
Figure 4.7. Well-set tiles	8
Figure 4.8. Leadwork with some gaps beneath	8
Figure 4.9. Survey area	9
Figure 4.10. Survey results	9
Figure 4.11. OS Map showing a 250m buffer around site, highlighting ponds	11
Figure 5.1. Proposed site plans	12
Figure 5.2. Proposed 3D views	12
Figure 6.1. Example external down light design	14
Figure 6.2. Example integrated bat box	14
Figure 6.3. Bird boxes	15

Table of Tables

Table 3.1. Survey conditions	3
Table 4.1. Survey results table	8
Table A.1. Details of surveyors' experience and licences held	17
Table B.1. Data sources	18
Table B.2. Criteria of ecological values	18
Table B.3. Windspeed scale	19



1 Executive Summary

1.1 Purpose of the Report

Greenscape Environmental Ltd was commissioned by Simon at En-Plan on behalf of the client, Mr Jon Kent, to undertake a preliminary ecological appraisal of Wilmore to provide supporting information for a planning application for the demolition and rebuild of a the bungalow on site.

The survey report has these principal aims:

- To provide an initial assessment of the ecological value of the site in local context.
- To provide details supporting further surveys that may be required.
- To identify potential ecological constraints relating to the development, and recommend measures to avoid, reduce or manage negative effects, and to provide a net ecological gain.

1.2 Methodology

The appraisal included a desktop study and a site visit undertaken at the site, OS grid reference SJ49174054 on 15th July 2022 by Ben Jones. A precautionary bat survey was then undertaken on 19th July 2022.

1.3 Key Impacts and Mitigation Measures

The desktop study included a search for nearby designated sites and previously recorded protected species. It was considered that the site could provide potential habitat for bat and bird species, and these should be the focus of the ecological appraisal.

The site comprises a detached, single-storey pre-fab bungalow, which is due to be demolished, with a replacement dwelling build in its place.

No evidence of bats was seen in the loft space, though some potential access features were identified on the exterior. The building was classified as having low roost potential and so a single bat activity survey was conducted, and this found no roosting bats. Bats were seen to mostly enter site from the east, and commuted over and around without interacting with the building. Demolition work can continue once planning has been granted by following a precautionary method statement.

No evidence of nesting birds was seen on or within the building. There are three ponds within 250m, though two of these are separated by the busy A525 and can be discounted. The final pond was on private land, but from what could be seen from the public footpath it supported limited egg-laying material for amphibians. The terrestrial land on site is of limited value for amphibians, being frequently disturbed bare ground.

1.4 Conclusion

It has been agreed with the client that the biodiversity value of the site will be enhanced post-construction with the inclusion of bat and bird boxes.

The method statement provided in section 6.3.2 of this report will be followed, and work will be conducted at a suitable time of year to minimise potential impacts.

There are no other ecological constraints to the development as currently proposed.



2 Introduction

This report has been compiled by Ben Jones BSc (hons) MSc who has 7 years' experience conducting ecological appraisals. It has been reviewed in line with Greenscape's Quality Management System.

For full details of surveyors and licences please see Appendix A.

2.1 Project Background

Greenscape Environmental Ltd was commissioned by Simon at En-Plan to conduct a survey to determine the presence of protected species and potential for the damage or destruction of habitats of value. This forms part of the planning application for the demolition and rebuilding of a bungalow at Wilmore.

2.2 Purpose of the Report

This report aims to:

- Identify the key ecological constraints to the proposed development.
- Inform planning to allow significant ecological effects to be minimised or avoided where possible.
- Allow any necessary mitigation or compensation measures to be developed following the mitigation hierarchy.
- Identify any additional surveys that may be required to inform the assessment.
- Identify the opportunities offered by a project to deliver ecological enhancement under NPPF Section 15.

The development meets the trigger list for bat surveys as it involves the demolition or removal of buildings which are pre-1960 detached buildings and structures within 200m of woodland and/or water.

2.3 Site Context and Location

The site is located south of the A525 at Bronington, OS grid reference SJ49174054. It is set in a rural environment surrounded by open farmland and scattered dwellings. There is generally poor connectivity to the surrounding countryside, and the nearest habitat of noteworthy value is a small block of woodland just over 1km to the northeast.



3 Methodology

Broad methodologies for data collection and interpretation were informed by guidance outlined in CIEEM (2017) – Guidelines for Preliminary Ecological Appraisals. Full details can be found in Appendix B.

3.1 Desk Study

The desk study provides contextual information such as the site's proximity to designated areas and known records of protected or notable species.

3.2 Field Survey

3.2.1 Date and Survey Conditions

Table 3.1. Survey conditions

Date	Time Start – End (Sunset Time)	Equipment Used	Weather
15/07/2022	13:00	Camera, strong torch	Mostly cloudy, dry
19/07/2022	21:10-23:15 (21:25)	Anabat Scout, Wildlife Acoustics Echometer Touch 2 Pro, Skywatch Meteos anemometer, Sony FDR-AX33 nightshot camera with 2x IRLamp6 illuminators, Binatone two-way radio, red LED torch	25-23°C, 25% cloud cover, F1-2 wind (peak gust of F3.2), no rain, waning crescent moon

3.2.2 Habitats

The level of survey is aimed to identify field signs of, or habitats with the potential to support protected species and therefore assist in the determination of site value.

3.3 Species Survey

Features on site were assessed for potential for bat roosts, foraging and commuting. Phase 2 surveys were conducted to confirm the presence/absence of any roosts, roost characterisation, access points and significance of the roosts. These were conducted in accordance with Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd Edition, BCT, Collins (ed.) (2016).

Badger surveys were conducted following guidance from Surveying Badgers by Harris *et al.*, (1989)

Features on site were assessed for potential for nesting birds.

The terrestrial habitats at the application site were surveyed and assessed with respect to suitability and potential value for great crested newts.

3.4 Constraints of the Survey

All areas were accessible for these surveys. They were conducted at optimal times of year for the type of assessment conducted. No specific constraints have been identified.

The internal search revealed that the buildings had not been subjected to any form of specific cleaning and was in a natural redundant state.

The identification of calls and species using sonogram analyses are dependent on the clarity of the sonogram recording, which may be affected by the distance from the bat and



Mr Kent

background noise. Species of *Myotis* bats are identified to genus level on the basis of the inherent difficulty in distinguishing between species from their echolocation calls.

Automatic ID bat detectors were used on these surveys, and these have limitations as reported in Reason, Newson & Jones (2016). To eliminate this constraint, sonograms were manually verified.



4 Baseline Ecological Conditions

4.1 Nearby Features of Importance

4.1.1 Designated Sites

The map from Natural England presented in Figure 4.1 indicated that the site not within 1km of any designated areas.

MAGiC

Wilmore, The Chequer

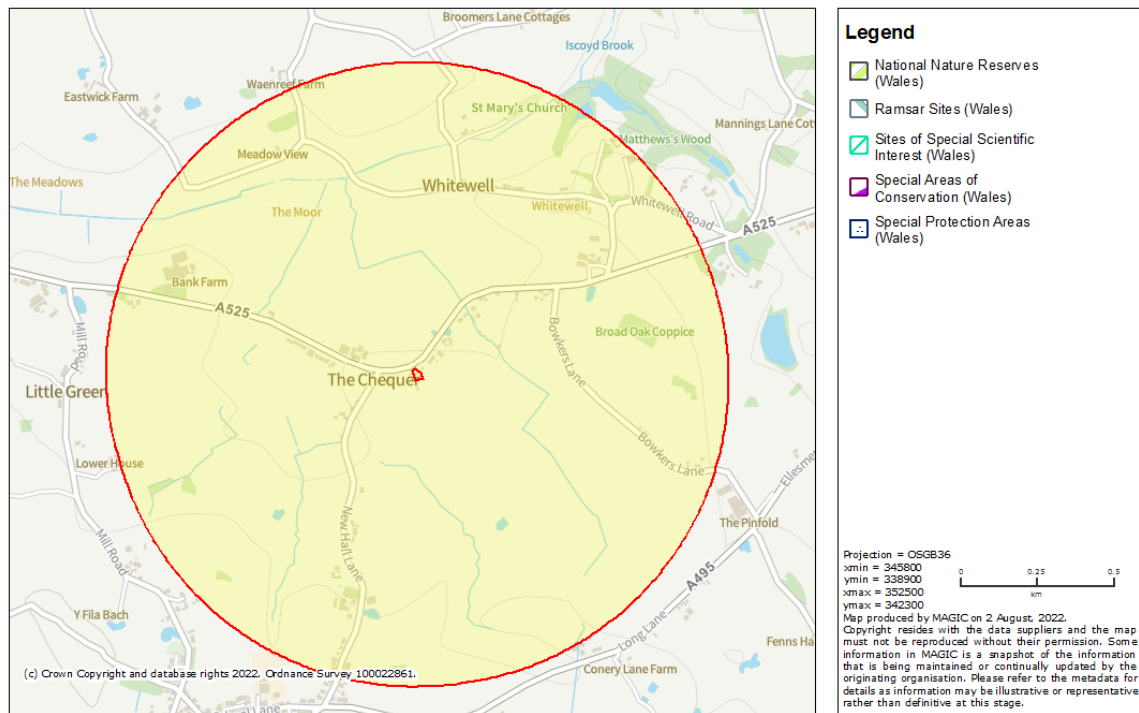


Figure 4.1. Identifying any designated areas near site, a 1km buffer is shown



4.2 Habitats on Site

The site comprises a detached pre-fab bungalow set amongst cleared bare ground showing some signs of regrowth. There are fences on the site boundaries, and a caravan to the north. There is a detached garage in the southwestern corner of the site.



Figure 4.2. Wilmore from the southwest



Figure 4.3. Bare ground adjacent to the property



Figure 4.4. Garage and fences



4.3 Bats

4.3.1 Records

Records of bats within 2km include brown long eared (*Plecotus Auritus*), and common pipistrelle (*Pipistrellus pipistrellus*).

The nearest records are 1.2km.

Bat species data was provided to the NBN Atlas Roost Count. Unless stated otherwise, all records are provided to the NBN Atlas under licences CC-BY or OGL.

4.3.2 Field Observations

The site had limited features available for roosting bats. No evidence of bats was seen in the loft. The roof is lined with bitumen hessian felt which is of potential value for roosting bats, but significant cobwebbing along the ridge suggests it has not been used.



Figure 4.5. Loft surfaces free of bat droppings



Figure 4.6. Roof lining and cobwebbing



The roof tiles are generally well-set, but some potential roost access points around the chimney leadwork were identified.



Figure 4.7. Well-set tiles

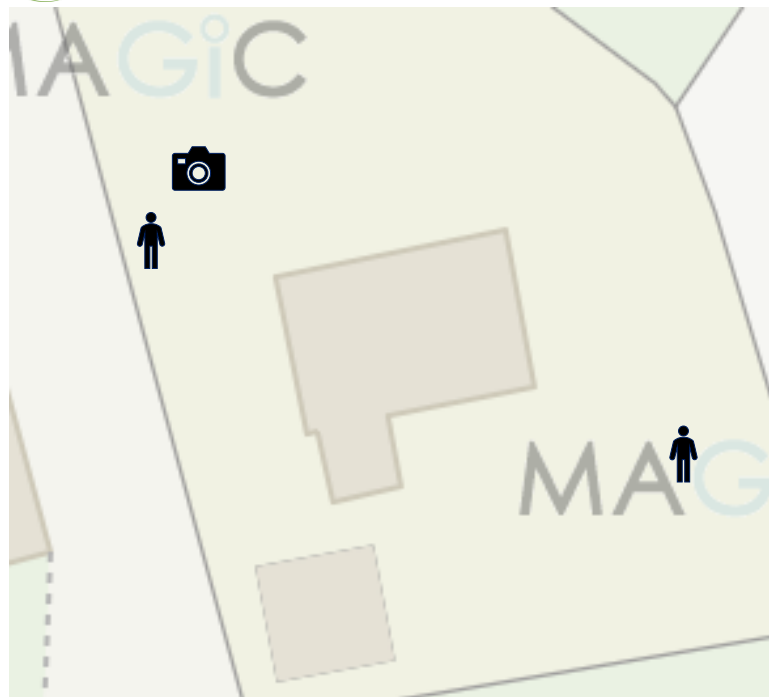


Figure 4.8. Leadwork with some gaps beneath

A precautionary activity survey was conducted, with survey positions on the northwest and southeast corners of the building. All bat activity was of noctules, common pipistrelles and a whiskered bat foraging and commuting around and over site, all having come from roosts off-site, mostly to the east.

Table 4.1. Survey results table

Date	Time Start – End	Species and Numbers	Roost Type	Structure	Roost Location	Access Points
19/07/2022	21:10- 23:15	--	--	--	--	--
Notes:	The first bat seen was a noctule at 21:40, flying east to west over site. At 21:58, approximately 23 minutes after sunset, a common pipistrelle came from the east and foraged around the silver birch trees on the northeast corner of site. At 22:26 a myotis bat, most likely a whiskered bat, was seen foraging in the field to the east of site. No bats emerged from roosts within the bungalow.					



Icon	Description
	Sony FDR-AX33
	Stationary Surveyor

Figure 4.9. Survey area



Figure 4.10. Survey results



4.4 Other Mammals

4.4.1 Records

There are no commercially available records of non-bat other mammals within 2km.

4.4.2 Field Observations

The site had no evidence of any non-bat mammals such as badger. No latrines, prints, pathways or sett entrances were seen on or around the site during the survey.

4.5 Birds

4.5.1 Records

There are no commercially available bird records within 2km of site.

4.5.2 Field Observations

The site had no evidence of nesting birds either on the exterior or in the loft space.

4.6 Amphibians

4.6.1 Records

Records of amphibians within 2km include smooth newt (*Lissotriton vulgaris*), common frog (*Rana temporaria*) and great crested newt (*Triturus cristatus*).

The nearest records are 1.2km from site.

Amphibian species data was provided to the NBN Atlas by NRW Regional Data in North Wales and the Reptiles and Amphibian Dataset under licences CC-BY or OGL.

4.6.2 Field Observations

The site had no long-standing terrestrial features for amphibians. There was a rubble pile generated from site clearance, but that had not been on site long and was due to be moved again shortly.

There were three ponds within 250m according to the OS map, though two of these were on the far side of the busy A525 so were not assessed. The remaining pond to the northeast was on private land and only visible through small gaps in the hedge.

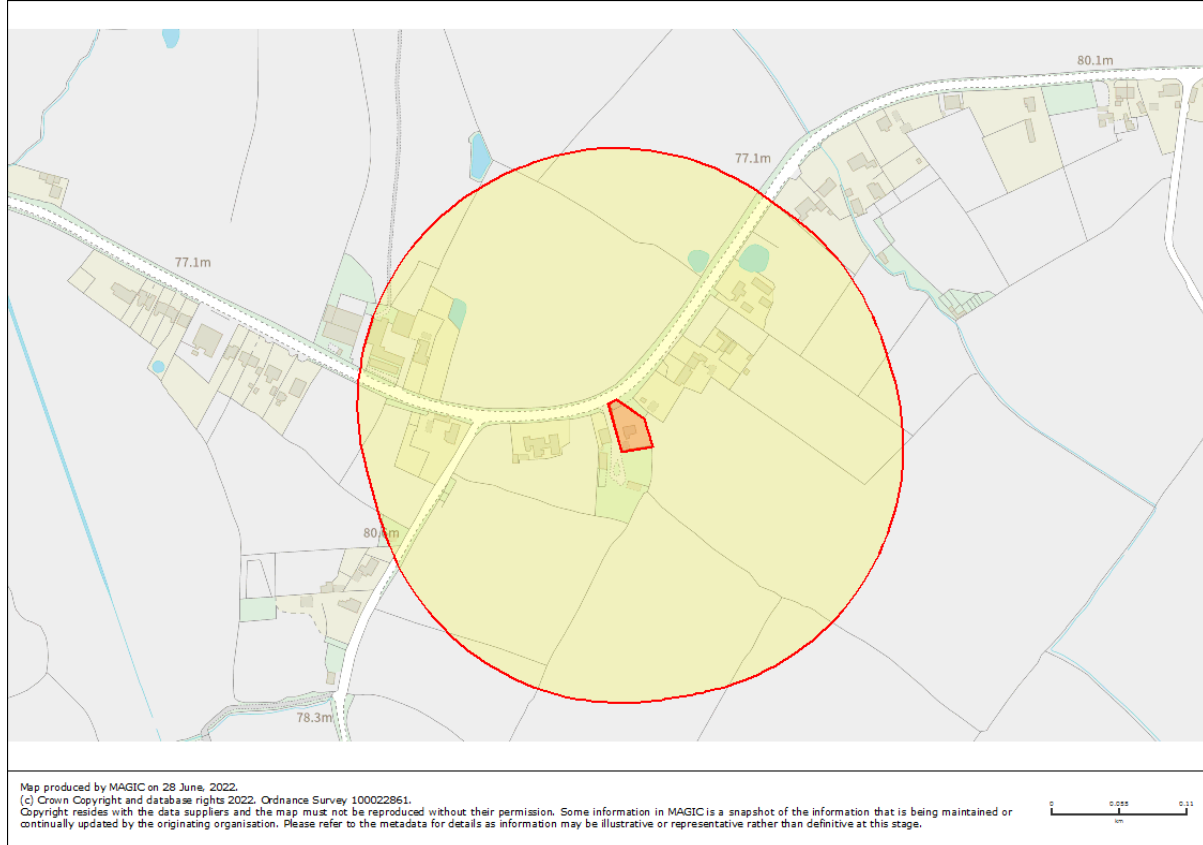


Figure 4.11. OS Map showing a 250m buffer around site, highlighting ponds



5 Description of Proposed Development

The current plans are for the demolition of the bungalow and construction of a new dwelling in its place.



Figure 5.1. Proposed site plans



Figure 5.2. Proposed 3D views



6 Impacts, Enhancements and Mitigation

6.1 Nearby Features of Importance

Figure 4.1 shows that there are no designated sites within 1km of the site, no negative impact on any designated area is expected from this small development.

6.2 Habitats on Site

The development as proposed will not result in the loss any habitats of principal importance listed in Section 7 of the Environment (Wales) Act 2016, and so mitigation and enhancements will be delivered at a species level.

6.3 Bats

6.3.1 Impacts

As no roosting bats are present in the building, demolition is unlikely to cause any negative impact. Negative survey results does not preclude the future use of potential features however, and so a precautionary method statement is provided to negate any further risk.

6.3.2 Mitigation

Work can be conducted immediately once planning permission has been granted.

Precautionary Working Method Statement

1. Construction will need to follow a rigid method statement.
2. The developer and the contractors will be made aware that there is a possibility that bats may be found during works, and will be advised to work in a way to ensure bats are not harmed during work in areas sensitive to bats; particularly around the chimney leadwork. They will be provided with a simple emergency procedure to follow if bats are found at any stage of the work on site. It will be ensured that the method statement is retained on site at all times.
3. The roof will be removed carefully and by hand.
4. If a bat is found when an ecologist is not present, work will stop immediately and the ecologist contacted for advice.
5. The bat can only be handled by the ecologist or authorised person unless it is in immediate danger. The bat must be carefully placed in a well-ventilated lidded box with a small container (i.e. a plastic bottle lid) with water in it. The container must be kept in a quiet and safe place.
6. Care should be taken to avoid rousing the bat whilst transferring to a suitable location, such as a suitable roost box or alternative roost space that provides a safe, quiet environment with a stable cool temperature and relatively high humidity.
7. If the bat is underweight or injured it will be cared for by an experienced bat carer until such time that it is strong enough to be released into a suitable alternative replacement roost on site.



Lighting

Lighting needs to be designed to have minimal impact on bats and their commuting and foraging areas. This results in the recommended use of downlights and the horizontal spread of lighting to be kept to a minimum.

Where it is not possible to reduce the horizontal spread of light, a 2700°K to 3000°K LED light bulb is recommended, which will provide a warm white light. This range has the least impact on bats and invertebrates.

1. A lighting scheme will be drawn up in line with ILP and BCT Guidance Note 08/18.
2. All newly proposed external lighting will be directed away from any vegetated boundary features to retain dark corridors for commuting bats.
3. There will be no direct illumination of any enhancement features erected for bats.
4. All domestic lighting will be below 10 lux, orientated towards the ground and controlled by PIR (Passive Infra-red), set on a short timer.



Figure 6.1. Example external down light design

6.3.3 Enhancements

It is recommended that permanent provision be made for roosting opportunities for bats with the inclusion of an integrated bat box in the new dwelling. This will be erected at a height of 3-4 m and in a southerly, westerly or easterly facing direction.

Enclosed Bat Box (B and C)

- Designed specifically for the pipistrelle bat
- Available in all brick types
- Discrete home for bats
- Various sizes
- Several roosting zones are created inside the box
- Bats are contained within the bat box itself
- Maintenance free with entrance at the base
- Ideal for new build & conservation work



Bat Box B



Bat Box C

Eco Habitats for Bats	Sizes (mm)	Durability
Bat Box Type A	215 x 65	F2 S2 – Fully Frost Resistant
Bat Box Type B	215 x 215 or 215 x 290	F2 S2 – Fully Frost Resistant

Figure 6.2. Example integrated bat box



6.4 Other Mammals

Even without consideration there is unlikely to be any negative impact as no habitat or evidence of non-bat mammals was found on site.

6.5 Birds

6.5.1 Impacts

No evidence of previous nesting was seen, and so the demolition is unlikely to cause the loss of nesting habitat or the disturbance of nesting birds.

6.5.2 Enhancements

1. It is recommended that a range of woodcrete boxes are erected around the site to provide an enhancement for passerine birds, and a selection of the following would be appropriate.
 - a. 26/32mm hole nest boxes (e.g. Schwegler 1b) should be installed at a minimum height of 3m in a westerly, northerly or easterly aspect.
 - b. Robin boxes should be installed inside vegetation such as a hedge or shrub, ideally at a height of over 2m.
 - c. Wren boxes should be installed inside vegetation such as a hedge or shrub, ideally 1-3m from the ground.



Schwegler 1b Bird Box



Schwegler 1ZA Roundhouse
Wren Box



Schwegler 2H Robin Box

Figure 6.3. Bird boxes

6.5.3 Monitoring

Failing boxes or enhancements will be replaced at the cost of the developer if deterioration or damage is noted within five years post-development.

6.6 Amphibians

No negative impact on amphibians is expected as there is no habitat of value on site. No further consideration of amphibians is required.



7 Concluding Remarks

The survey has focussed on the potential habitats or protected species to be damaged or destroyed as part of this development.

The only potential habitat of value is the low value bat roost potential of the roof. A precautionary activity survey confirmed that no bats are roosting in the building, matching the lack of evidence seen. It is recommended that the roosting potential of the site is enhanced by including a dedicated bat roost box in the new building. Demolition work will be done under a precautionary method statement to further negate any risk to individual bats that may begin to use.

There are ponds within 250m, but are either separated by a busy road or on private land. The land to be developed is frequently disturbed and of low value for amphibians. No further consideration is required.

There is opportunity to enhance the site for nesting birds by including artificial nest boxes around site post-development.

The development can proceed without the loss of habitat of significant value, and without the loss of the favourable conservation status of any protected species. As there is no evidence of protected species within and around the development site, there is no requirement to address the three tests under Regulation 55 of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019.

The method statement provided in section 6.3.2 of this report will be followed. Other than those listed above, there are no ecological constraints to the development as currently proposed.



Appendix A – Surveyor Details

Table A.1. Details of surveyors' experience and licences held

Name	Membership of associations/ experience	Licenses
Ben Jones BSc(hons) MSc	Senior Consultant Ben has a degree in Marine and Freshwater biology and a Master's degree in "Managing the Environment". He has 7 years' experience conducting environmental appraisals and phase 2 surveys for bats and newts in England and Wales.	Holder of survey licenses for bats and newts in England and Wales. <u>England:</u> Bats - 2017-29112-CLS-CLS GCN - 2016-25209-CLS-CLS <u>Wales:</u> Bats – S088669-2 GCN – S091242-1
Logan Maggs BSc(hons)	Senior Consultant Logan has a degree in Conservation and Land Management. He has over 10 years' experience conducting environmental appraisals and phase 2 surveys for bats and newts in England and Wales.	Holder of survey licenses for bats and newts in England and Wales. <u>England:</u> Bats - 2016-24901-CLS-CLS GCN - 2017-29218-CLS-CLS <u>Wales:</u> Bats – S091096/1



Appendix B – Methodology

Desk Study

Table B.1. Data sources

Organisation/Resource	Information Assessed
Freely available online species datasets (NBN Atlas)	Protected/UK BAP Species records (2km)
MAGIC website	International statutory designations (1km) • Special Protection areas (SPA) • Special Areas of Conservation (SAC) • RAMSAR sites National statutory designations (1km) • Sites of Special Scientific Interest (SSSI) • National Nature Reserves (NNR) EPS Licenses for protected species (2km)

The National Biodiversity Network (NBN) Atlas was checked to identify the protected species that have formally been recorded in the area. This was considered proportionate to the size of the development, as the Shropshire Environmental Data Network (SEDN) provides most of its records to the NBN.

A search on Multi Agency Geographic Information for the Countryside (Magic Maps) determined nearby designated areas. The map is presented in Section 4.1.

Field Survey

The level of survey is aimed to identify field signs of or habitats with the potential to support protected species and therefore assist in the determination for detailed phase 2 surveys.

Determination of Ecological Value is based on the general criteria provided by IEEM (IEEM 2006).

Table B.2. Criteria of ecological values

Ecological Value	Description and Examples
High	Habitats or features that have high importance for nature conservation, such as statutory designated nature conservation sites of international or national importance or sites maintaining viable populations of species of international or national importance (e.g. Red Data Book species; European protected species).
Medium	Sites designated at a county or district level, e.g. Local Wildlife Site (LWS), ancient woodland site, ecologically 'important' hedgerows or ecological features that are notable within the context of a region, county or district (e.g. a viable area of a Priority Habitat on the county BAP or a site that supports a viable population of a county BAP species).
Low	Sites of nature conservation value within the context of a parish or neighbourhood, low-grade common habitats, such as arable fields and improved grasslands and sites supporting common, widespread species.



Species Surveys

Bats

Methodology used is in accordance with recommendations by BCT, Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd edition, Collins (2016).

Features on site were assessed for potential for bat roosts, foraging and commuting.

An external assessment of all structures on site was undertaken to determine potential roost features (PRF) The potential suitability of the structures assessed was assigned a rating of low to high in accordance with table 4.1 of Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd edition, Collins (2016).

An internal assessment of all structures was undertaken by a suitably licensed surveyor for evidence of roosting bats such as droppings, feeding remains and staining.

Daytime surveys were conducted with the aid of a strong torch and a 12x55 monocular. Bat species may leave little evidence of their presence.

Evidence for the presence of bats includes:

- Holes, cracks and rot holes used as roosts, marked by streaks of urine and faeces.
- Smoothed, darkened edges where bats have rubbed and left natural body oils when entering and exiting a space.
- Faeces under a roof access point, a well-used feeding point or a resting spot.
- Feeding signs such as discarded insect wings under a feeding point.
- Lack of cobwebs around eaves, roof spaces, beams or ceilings where routes are kept clear by bats or presence of droppings in a cobweb.
- Presence of roosting or dead bats in or behind any object.

Phase 2 bat activity surveys were conducted to reinforce the findings using frequency division bat detectors (Anabat Scout, Wildlife Acoustics Echo Meter Touch), and a Sony FDR-AX33 night-sight camera with a pair of IRLamp6 illuminators. The footage was analysed by an experienced bat ecologist.

Surveys were conducted when the weather conditions were suitable for bat activity, i.e. when the ambient temperature exceeded 10°C at sunset and when there was little or no rain. Dusk surveys were begun approximately 15mins prior to sunset and continued for 90-120mins following sunset depending on visibility and site conditions.

Table B.3. Windspeed scale

Wind Force	Description	Speed mph (kph)	Specifications
0	Calm	<1 (<1.6)	Smoke rises vertically
1	Light Air	1-3 (1-5)	Direction shown by smoke drift but not by wind vanes
2	Light Breeze	4-7 (6.5-11)	Wind felt on face; leaves rustle; wind vane moved by wind
3	Gentle Breeze	8-12 (12-19)	Leaves and small twigs in constant motion; light flags extended



Mr Kent

Activity surveys are conducted to establish the presence of bats within a structure, what species they are, approximately how many are present, and if possible, where they are exiting a roost.

Bats were identified from the characteristic echolocation calls using appropriate computer sonogram analysis software.

Badgers

Surveys were conducted in line with Harris, S., Cresswell, P. and Jefferies, D. (1989) Surveying Badgers. Mammal Society - No9.

Daytime surveys for badgers involved looking for:

- Scrapings where badgers have dug for food or used as latrines.
- Signs of a sett, including signs of use such as presence of badger hair.
- Tracks and prints.

Birds

Searching for evidence of nesting birds, including barn owls, involved looking for:

- Presence of nests
- Collections of droppings and/or feathers
- Highly distinctive droppings or splats under roosting points.
- Presence of owl pellets/feathers
- Listening for bird song
- Recording bird activity

Amphibians and Reptiles

The terrestrial habitats at the application site were surveyed and assessed for their suitability and potential value for the support of GCN. The general topography, ground conditions and presence or absence of vegetation were recorded. A refugia search was conducted for amphibians and reptiles by looking under any logs, large stones and other debris.



Appendix C – Policy

The following areas of policy and legislation are of relevance to ecology and provide context to the surveys conducted. Findings presented in this report are in line with the following:

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 – as listed in:

- Schedule 2. European protected species of animals

The Wildlife and Countryside Act (1981) – as listed in:

- Schedule 1. Birds protected by special penalties at all times
- Schedule 5. Protected animals

Countryside and Rights of Way Act (2000)

Environment Act (2021) – Part 6 – Nature and Biodiversity

Hedgerow Regulations (1997)

The Protection of Badgers Act (1992)

Natural Environment and Rural Communities (NERC) Act (2006)

Planning Policy Wales 2002, updated Dec 2018

Section 6.4 – Biodiversity and Ecological Networks

The Nature Recovery Plan for Wales – Setting the course for 2020 and beyond (2015)

Environment Act (Wales) (2016)

Section 7

Wrexham Unitary Development Plan – EC6 Biodiversity Conservation

Bats

All bat species are protected under The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 which implements the EC Directive 92/43/EEC in the United Kingdom. It is an offence, with certain exceptions, to:

- Deliberately capture or kill any wild animal of a European Protected Species.
- Deliberately disturb any such animal.
- Damage or destroy a breeding site or resting place of such a wild animal.
- Keep (possess), transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal or plant of a European Protected Species, or any part of, or anything derived from such a wild animal or plant.

A person found guilty of an offence is liable on summary conviction to imprisonment for a term not exceeding six months or to an unlimited fine or to both.

Seven bat species are on the UK Biodiversity Action Plan and are listed as Species of Principal Importance under the provisions of the Natural Environment and Rural Communities (NERC) Act 2006. The National Planning Policy Framework (NPPF) states that to minimise impacts on biodiversity and geodiversity, “*planning policies should... promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations*”.



To allow a development that might result in an offence, a derogation licence can be sought via the implementation of a European Protected Species Licence. This is provided by Natural Resources Wales.

Work can be conducted under a derogation licence from Natural Resources Wales providing suitable compensation and mitigation is provided and the “three tests” can be met. These are:

Regulation 55(2)(e) states: a licence can be granted for the purposes of “preserving public health or public safety” or other imperative reason of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.

Regulation 55(9)(a) States: the appropriate authority (Natural Resources Wales) shall not grant a licence unless they are satisfied “that there is no satisfactory alternative”

Regulation 55(9)(b) states that the appropriate authority shall not grant a licence unless they are satisfied “that the action licensed will not be detrimental to the maintenance of the population of the species concerned at favourable conservation status in its natural range.”

Badgers

Badgers and their setts are specifically protected under the Protection of Badgers Act 1992. The act was primarily brought into force to prevent the deliberate injury to or death of badgers. Some aspects of the act affect developers. It is important that developers are aware of any badger setts located on the land they intend to develop.

All personnel working on sites where there are badgers should be aware of the Protection of Badgers Act 1992. Under this legislation it is an offence to:

- Damage a badger sett or any part of it.
- Destroy a badger sett.
- Obstruct access to, or any entrance of a badger sett.
- Causing a dog to enter a badger sett.
- Disturbing a badger when it is occupying a badger sett.

Birds

Under Section 1 of the Wildlife and Countryside Act 1981 (as amended), birds, their nests and young are all protected from damage, particularly during the breeding season. The Act allows for fines or prison sentences for every bird, egg or nest destroyed. It makes it an offence to:

- Intentionally kill, injure or take any wild bird.
- Take, damage or destroy the nest of any wild bird whilst it is in use or being built.
- Take damage or destroy the egg of any wild bird.
- To have in one’s possession or control any wild bird, dead or alive or egg or any part of a wild bird or egg.

Some bird species are included in the UK and local BAPS and are recognised as species of principal importance for nature conservation in accordance with section 41 of the NERC Act 2006. Such species and their habitats receive protection through the provisions of the NPPF.



Amphibians and Reptiles

All species of amphibians receive a measure of protection under legislation.

The Wildlife and Countryside Act 1981 has been amended by the Countryside and Rights of Way Act (CROW) 2000. This applies to England and Wales only. The key relevant fact is:

- Section 9(4) is amended to create an additional offence of reckless damage to, destruction of, or obstruction of access to, any structure or place used for shelter or protection; and reckless disturbance while occupying such a structure or place.

Great Crested Newts

Great crested newts are protected under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 which implements the EC Directive 92/43/EEC in the United Kingdom. It is an offence, with certain exceptions, to:

- Deliberately capture or kill any wild animal of a European Protected Species.
- Deliberately disturb any such animal.
- Deliberately take or destroy eggs of any such wild animal.
- Damage or destroy a breeding site or resting place of such a wild animal.
- Keep (possess), transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal or plant of a European Protected Species, or any part of, or anything derived from such a wild animal or plant.

Great crested newts are listed as a priority species on the UK BAP and Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. The National Planning Policy Framework (NPPF) states that to minimise impacts on biodiversity and geodiversity, *"planning policies should... promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations"*.

A person found guilty of an offence is liable on summary conviction to imprisonment for a term not exceeding six months or to an unlimited fine, or to both.



Appendix D – Bibliography

Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020). *UK Habitat Classification – Habitat Definitions V1.1* at <http://ukhab.org>

Chartered Institute of Ecology and Environmental Management (CIEEM), (2006). *EcIA Guidance (Terrestrial, Freshwater and Coastal 2006)*.

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

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019: <https://www.legislation.gov.uk/ukdsi/2019/9780111176573>

Joint Nature Conservation Committee (2010) – Handbook for Phase 1 habitat survey.

HMSO (2000) *Countryside and Rights of Way Act 2000* - HMSO, London
<http://www.legislation.gov.uk/ukpga/2000/37/contents>

HMSO (1981) *Wildlife and Countryside Act 1981* - HMSO, London
<http://www.legislation.gov.uk/ukpga/1981/69>

HMSO (1992) *The Protection of Badgers Act* - HMSO, London
<http://www.legislation.gov.uk/ukpga/1992/51/contents>

ILP (2018) *Guidance Note 08/18 Bats and artificial lighting in the UK*, The Institute of Lighting Professionals

Mitchell-Jones A.J. (2004) *Bat Mitigation guidelines*, English Nature

National Planning Policy Framework 2018:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/728643/Revised_NPPF_2018.pdf

Natural England – *Nature on the Map, Magic Maps*. Copyright Natural England, containing Ordnance Survey data, crown copyright and database right 2018:
<http://magic.defra.gov.uk/magicmap.aspx>

Natural Environment and Rural Communities Act 2006:
<http://www.legislation.gov.uk/ukpga/2006/16/contents>

NBN Atlas website at <http://www.nbnatlas.org>. Accessed 12th July 2022

Reason, Newson & Jones (2016) – *Recommendations for using automatic bat identification software with full spectrum recordings*