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Preliminary Bat Roost and Pond Assessment

of

**Walnut Tree Barn Outbuilding, Duke Street,
Hintlesham, Suffolk, IP8 3PW.**

Survey Commissioned by:	Richard Bostock
Project Number:	REP23043
Report issued:	3 rd December 2023
Date of survey:	20 th November 2023
Ecologist:	Odette Robson BSc (Hons) PhD MCIEEM

Project number:	Title:	Revision:	Issued:
REP23043	Preliminary Bat Roost and Pond Assessment of Walnut Tree Barn Outbuilding, Duke Street, Hintlesham, Suffolk, IP8 3PW	Final	3 rd December 2023

Disclaimer

The findings detailed in this report are based on evidence from thorough survey, where every effort has been taken to provide an accurate assessment of the site at the time of the survey. No liability can be assumed for omissions or changes after the survey has taken place.

This report was instructed by Richard Bostock and following the brief agreed. Robson Ecology Ltd has made every effort to meet the client's brief.

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*Where roosting bats are recorded, a Protected Species Licence may be required: Natural England (the licensing authority in England) require data **from the most recent survey season**. Where a bat roost is not recorded, data will be valid for a maximum of 18 months from survey date.*

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Summary

Site:	Walnut Tree Barn Outbuilding, Duke Street, Hintlesham, Suffolk, IP8 3PW
Grid Reference:	TM 08095 43182
Report Commissioned by:	Richard Bostock
Date of Survey:	20 th November 2023

	Impacts	Recommendations
European Designated sites	No direct or indirect impacts	The site lies within the Zone of Influence (Zoi) of a European designated site. A financial contribution to the Recreational Disturbance Avoidance & Mitigation Strategy (RAMS) is not required because the proposed work is ancillary to an existing dwelling; there is no increase in residential units or additional visitor pressure on designated sites.
Bats	Construction Phase Impact (roosting bats).	No evidence of bats having used the outbuilding and negligible risk of bats roosting due to lack of suitable crevices and potential roosting features/opportunities internally and externally. <u>No further survey or precautions required.</u>
	Operational Phase Impact (commuting and foraging bats).	Negligible impact to commuting or foraging bats: No foraging habitat will be lost, or flight lines interrupted, through proposals. <u>Sensitive external lighting around extended outbuilding to retain dark corridors around the garden/site.</u>
Great Crested Newts <i>Triturus cristatus</i> .	Construction Phase Impact (terrestrial phase)	The nearest pond is 20m to the south-west of the construction zone – no other known ponds within 250m. Habitat within the zone of impact had negligible potential to be used by great crested newts in their terrestrial phase (patio, building, lawn, and hard-standing). Due to the small scale and low impact of the proposals, and lack of suitable habitat within the ground-working zone, works are highly unlikely to impact great crested newts during the construction or operational phase. No further surveys required. A protected species licence is not required: The proposed works will not impact on individual great crested newts, or the local conservation status of great crested newts if the precautionary method statement (detailed in this report) is implemented during the construction phase.
Birds	Nesting bird potential	Works should be conducted outside the nesting bird season (March to August inclusive) or following a survey for nesting birds carried out immediately before the works start. If active nests are recorded, there will be a delay in that part of the site (including an exclusion zone surrounding the nest) until all young birds have fledged and left the area.
Additional enhancement	The outbuilding should be enhanced for bats and birds by siting habitat boxes on the the extended/renovated outbuilding.	

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1 Introduction

1.1 Background

Robson Ecology Ltd was commissioned to undertake a Bat Roost and Pond Assessment of an outbuilding at Walnut Tree Barn, Hintlesham, IP8 3PW, to inform a householder planning application and legal obligations for the following works:

Erection of extension to existing outbuilding to create carport and storage, adding timber cladding to the existing walls, raise and replace the existing roof to match existing house.

1.2 Legislation

Bats are strictly protected under European and UK legislation (Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, and the Wildlife and Countryside Act, 1981). Four UK species are also listed under Annex II of the Habitats Directive.

Seven species are *Species of Principal Importance in England* (SPIE) - formerly UK Biodiversity Action Plan Priority (BAP): Barbastelle *Barbastella barbastellus*, noctule *Nyctalus noctula*, brown long-eared *Plecotus auritus*, soprano pipistrelle *Pipistrellus pygmaeus*, greater horseshoe *Rhinolophus ferrumequinum*, lesser horseshoe *Rhinolophus hipposideros* and Bechstein's bat *Myotis bechsteinii*.

Great crested newts are strictly protected under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, and the Wildlife & Countryside Act 1981 (as amended). Therefore, presence/absence needs to be established in order to meet the specific requirements of the legislation, to inform design, mitigation and, if appropriate, a European Protected Species Licence (EPSL) application. Great crested newts are a priority species under Section 41 of the NERC Act (2000) which is a consideration under the National Planning Policy Framework - NPPF (MHCLG, 2021), placing responsibility on Local Planning Authorities to aim to conserve and enhance biodiversity and to encourage biodiversity in and around developments.

1.3 Aims and Objectives

All UK species of bats and great crested newts are protected under Regulation 41 of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to deliberately or recklessly capture, injure, disturb or kill a great crested newt or bat; damage or destroy a breeding site or resting place used by a great crested newt or bat; or obstruct access to any structure or place used for shelter or protection.

The surveys were therefore required to:

- Identify the presence, or potential presence, of any bats, birds or great crested newts;
- assess the potential impact of the proposals on protected species within the zone of impact;
- make recommendations for further surveys to inform the planning application and/or a protected species licence application (if required);
- detail any precautions required to protect bats, birds and great crested newts from impact, and/or mitigation or compensation, where necessary.

2 Survey Methodology

2.1 Site Survey

The site survey was undertaken by Odette Robson BSc (Hons) PhD MCIEEM, a full member of the Chartered Institute of Ecology & Environmental Management (MCIEEM); licensed by Natural England (Licence ref: CL18:2015 10940-CLS-CLS) to survey for bats (Level 2); a NE Registered Consultant under the Bat Mitigation Class Licence, Bats in Churches Class Licence, and Bat Earned Recognition Class Licence - CL47 (Accreditation Level 2); and great crested newts (2015-16945-CLS-CLS: Class licence Level 2).

During the survey, on 20th November 2023, the temperature was 7-8°C; the wind at Beaufort Scale 3, 10% cloud cover and very good visibility.

2.1.1 Bats

The survey was undertaken in accordance with *Bat Surveys for Professional Ecologists: Best Practice Guidelines* (Collins, 2016). All parts of the house and immediate surroundings were assessed externally and internally for potential bat roosting features using binoculars, high-powered torch and a borescope inspection camera (Ridgid CA300).

Aerial photographs, available maps and survey of the area outside the immediate zone of impact (where access was available) was used to identify any bat habitat in the wider landscape which could be impacted by proposals. The likely impact of the replacement lean-to/extension (operational phase) to bats using the surrounding area (foraging and/or commuting) was also assessed.

2.1.2 Great Crested Newts

Ponds and waterbodies within 250m of the site were identified from available maps, and site survey. Those within impact distance of the site works and ecologically connected were surveyed (where access was available) for potential to support great crested newts. Terrestrial habitat within the zone of impact was assessed for potential to support great crested newts.

2.1.3 Desk Study

A 2km radius search for statutory designated sites was conducted using "MAGIC", the Multi-Agency Geographic Information system for the Countryside. The search radius was extended to the Zone of Influence (Zoi) for European designated sites: Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites, where the potential risk of impact to the qualifying features (species or habitats) of these sites may extend over a wider area.

A datasearch was requested from Suffolk Biodiversity Information Service (SBIS). Records of all bat species within a 2km radius of the site were provided on 15th November 2023.

2.2 Site Context and Proposals

The property is at Duke Street, on the southern edge of the village of Hintlesham which lies approximately 5km to the west of Ipswich.

The outbuilding lies adjacent to the north-western gable of Walnut Tree Barn, an occupied dwelling and former barn conversion.

The garden immediately surrounding the outbuilding is short-mown lawn (improved, seeded, species-poor), patio, and gravelled parking/driveway.

To the north, east, and south of Walnut Tree Barn's curtilage are further residential properties and gardens. To the west is an active construction site (recent removal of redundant farm buildings and planning consent for redevelopment and change of use to residential).

The wider landscape, beyond the village, is predominantly agricultural - mainly arable land with pockets of woodland and hedged field boundaries.

Only one pond was identified from available maps within 250m of the site: A large garden pond 20m to the south-east of the outbuilding (Figure 2.1).

Hintlesham Wood SSSI is the nearest woodland, 450m to the south-west.

Figure 2.1: Site context and pond location (P1)



3 Results

3.1 Desk Study

The site lies within a Site of Special Scientific Interest (SSSI) Impact Risk Zone (IRZ); Consultation with Natural England is not required for householder planning applications of the type proposed.

The site lies within the Zone of Influence of a European designated site: The Stour and Orwell lies 8.4km to the south-east (Table 3.1).

Table 3.1: European Designated sites (MAGIC, 29/09/23)

Site Name	Designation	Distance from Site (approx.)	Description
Stour and Orwell Estuaries	SPA/ Ramsar	8.4km SE (Zoi = 13km)	<i>The Stour and Orwell Estuaries is a wetland of international importance, comprising extensive mudflats, low cliffs, saltmarsh and small areas of vegetated shingle on the lower reaches. It provides habitats for an important assemblage of wetland birds in the non-breeding season and supports internationally important numbers of wintering and passage wildfowl and waders. The site also holds several nationally scarce plants and British Red Data Book invertebrates.</i>

The only statutory site within 2km is Hintlesham Wood Wood SSSI, an ancient coppice woodland site (MAGIC, 2023).

The nearest European Protected Species (EPS) licence granted for bats is 1.3km to the south-east (2014-4374-EPS-MIT), for destruction of a brown long-eared bat resting place.

The nearest EPS licence granted for great crested newts is 3.2km to the north-east (2016-24231-EPS-MIT), for damage and destruction of a resting place. Great crested newts have been recorded 2.7km to the north-west (Wolves Wood) from Pond Survey data held on the MAGIC database (accessed November 2023).

Suffolk Biodiversity Information Service (SBIS, 2023) provided 12 records of bats within 2km of the site, as follows:

- Five common pipistrelle bat records (2011-2019) – nearest at Hintlesham Church, 700m to the north-east.
- Four brown long-eared bats (2006 - 2022) – nearest 700m north-east at Hintlesham Church.
- A single Daubenton (and another Myotis – not species-specific) in 2022- over 1km to the south-west, in Hintlesham Wood.
- Unspecified bat record from St Nicholas Church, Hintlesham in 2019.

3.2 Survey Results from 20th November 2023

The outbuilding was in moderately good repair, internally subdivided into three distinct sections, and mainly used for storage. Target Notes described in Table 3.2 refer to numbers/locations shown in Figure 3.1 below.

Figure 3.1 – Target Note locations (yellow numbers)

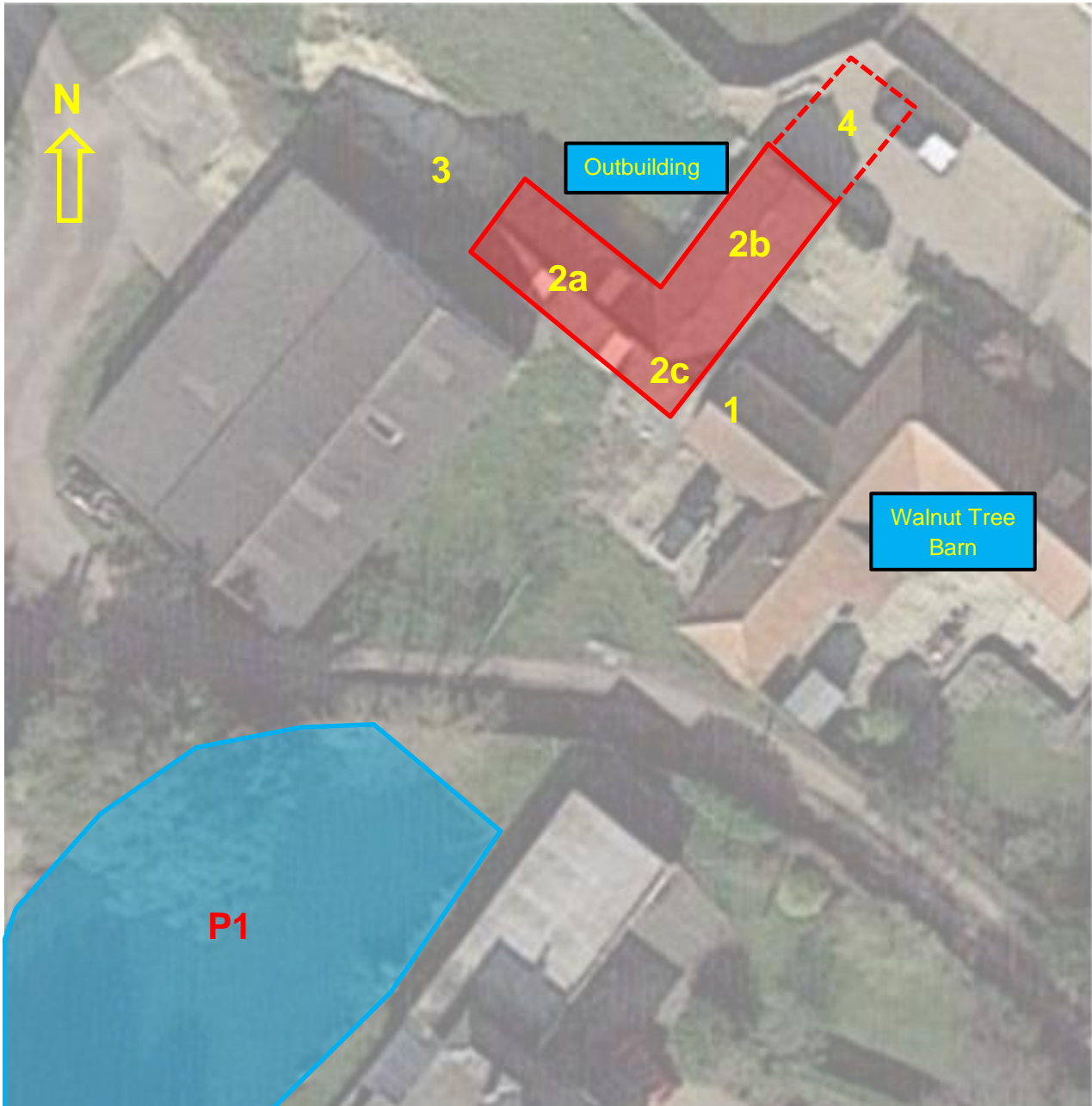





Table 3.1: Building and pond assessment carried out on 20th November 2023.

Building and Pond Descriptions	
<p>1) Adjacent House Gable</p> <p>Timber weatherboarded gable end of the Dwelling (Walnut Tree Barn), less than 1m from the gable of the outbuilding. Well-sealed, intact weatherboards with no warping or gaps beneath. No bat droppings adhered to boards or window ledge. Negligible bat roosting potential.</p>	
<p>2) Outbuilding - external.</p> <p>Block and brick walled single-storey building, with a section of weather-boarding on the gables and south-eastern elevation – all well-sealed. Single-glazed windows well-sealed into surrounds.</p> <p>Corrugated asbestos sheet roof with roof lights panels – all well-sealed and intact with significant moss-cover. No gaps under fascia boards. North-western gable had large window surrounded by small section of weatherboard – well sealed. Broken asbestos rake edging did not provide crevice opportunity for birds/bats. North-eastern gable had well-sealed weatherboarding – one large gap provided access internally (Section 2b). Gaps under eaves where corrugated sheets join wall-tops could be used by birds/bats to access some parts of the outbuilding (Sections B and C only)</p> <p>No droppings internally or externally, or other evidence of bats/birds using the building.</p>	
<p>2a) Studio</p> <p>Internally lined with Celotex and plasterboard – all intact and no access for birds/bats. No loft-void.</p> <p>High internal light levels (glazed windows and roof light panels).</p>	

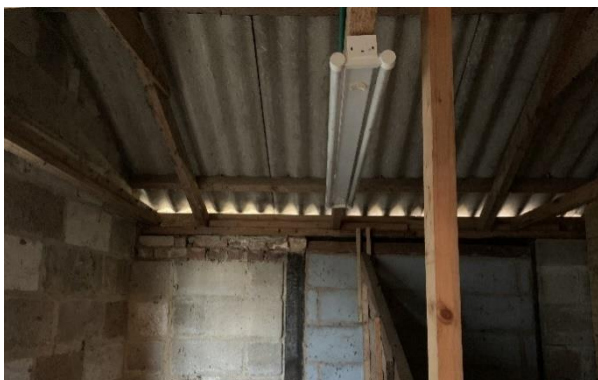
2b) Garage/workshop/storage

No roof-lining, ridge-beam, or void. High internal light levels (windows on south-eastern elevation).



2c) Log store

Potential access for birds/bats at eaves but no internal roosting opportunities/crevices. Simple roof timbers with no ridge beam, mortise joints, loft void, or roof lining.



3) Garden (to the west of the outbuilding)

The garden adjacent to the outbuilding (western elevation) was largely laid to lawn (well managed and short-mown – likely recently established). A depression adjacent to the north-west-facing gable was dry at the time of the survey. The survey was undertaken at a time when the local area had been subject to heavy rain and flooding. The ditch/depression was well-vegetated throughout, with no aquatic/emergent species and showed no sign of regular or seasonal inundation.



4) Footprint of extension

Shingle driveway/parking area within the footprint of the proposed extension.



P1 – Garden Pond

Distance from outbuilding: 20m to south.

Area of pond: 450m² (approx.)

The pond was in a private garden and could not be accessed to survey. Mature garden pond surrounded by trees and managed gardens.

Habitat between the pond and the site was predominantly a gravel, unmade track with ruderal and rough grass vegetation, and hardstanding adjacent to the outbuilding. A close-board fence separated the garden/pond from the track/outbuilding.



3.3 Suitability of Outbuilding for Roosting Bats

An assessment was made under the criteria detailed in current Best Practice Guidelines (Collins, 2023).

3.3.1 Further Surveys or Licence for Bats

No further surveys or licences are required to inform the planning application or to comply with wildlife legislation. Lighting precautions should be implemented (Section 3.3.3) to maintain dark corridors around the garden boundaries and ensure bat activity in the local area is not impacted.

3.3.2 Breathable roofing/wall membranes

Breathable roofing and wall membranes should only be used in areas which bats cannot access: If there are gaps (over 1cm), which bats can access, then a bat-safe membrane should be used: This should be bitumen 1F felt that has a non-woven, short fibre construction. If a breathable, non-bitumen coated roofing membrane is used, this must pass a snagging propensity test to ensure that the material can stand the repeated snagging actions of roosting bats. Further clarification on this is detailed on the Bat Conservation Trust website <https://www.bats.org.uk/our-work/buildings-planning-and-development/non-bitumen-coated-roofing-membranes>

3.3.3 Sensitive Lighting

Due to records of bats in the local area and good quality foraging habitat, lighting should be minimized to encourage bats to use the property, both during the extension/re-roofing works, and on completion. Guidance from the Institute of Lighting Professionals and the Bat Conservation Trust (IPL 2023, 2018; ILE 2012, BCT 2009) has been used to inform the following considerations:

- No lighting should be directed towards the garden boundaries, which should be maintained as dark corridors.
- LED luminaires should be used where possible (No UV elements: Metal halide, fluorescent sources should not be used).
- A warm white spectrum (ideally <2700Kelvin) should be used to reduce the blue light component.
- Peak wavelengths higher than 550nm should be used to avoid the component of light most disturbing to bats (Stone, 2012).

- Only luminaires with an upward light ratio of 0% and with good optical control should be used (See ILP 2011).
- Any external security lighting should be set on motion-sensors sensitive to large moving objects only, and short (<1 minute) timers.
- All external lighting should be kept to the minimal feasible level and be directed downward: Baffles, hoods or louvres can be used to reduce light spill and direct it only to where needed.
- Lighting should be appropriately directed to avoid illuminating any mature trees, hedges/shrubs, and any mitigation/enhancement habitat boxes.
- Building works should only be undertaken during daylight hours and task lighting should not be used during the construction or operational phases of the development.

3.4 Foraging and Commuting Bats.

There is potential for foraging and commuting bats to move through the area, or around the outbuilding, due to good quality foraging habitat in the wider local landscape (adjacent pond, mature trees/hedges, and gardens). However, the outbuilding does not lie on any obvious commuting corridors, with no adjoining hedges or other linear features. The proposed extension would not result in a net loss of habitat. There would be no impact to commuting bats if any new external lighting is sensitive to wildlife (Section 3.3.3).

3.5 Pond Assessment for Great Crested Newts

Distance from a potentially suitable water body/terrestrial connectivity is a major factor in determining the potential suitability of a site to be used by great crested newts during their terrestrial phase. Small numbers of great crested newts have been known to range significant distances (1km) to colonise new ponds. However, research undertaken by English Nature (2006) has shown that it is most common to encounter them within 50m of a breeding pond, with few moving further than 100m unless significant linear features or suitable terrestrial habitat is involved, when great crested newts can be encountered at distances of between 150m-200m. At distances, greater than 200-250m great crested newts are hardly ever encountered.

The nearest pond to the site was 20m to the south-west, separated from the site by a gravel track and hardstanding, with sparse ruderal vegetation close to the outbuilding. There were no other known water bodies within 250m (identified from available maps). The pond was not accessible at the time of the survey however, it had been surveyed and described in an Ecology Report for the adjacent construction site (MHE Consulting, 2021).

The pond is surrounded by good terrestrial habitat (garden) on all sides, with mature gardens to the south and garden/field to the west.

No water bodies will be impacted by the proposed extension and re-roofing: The site access is already in use and all areas used during construction would be limited to the hardstanding parking area or short-mown lawn/turf. This includes construction vehicles, storage of materials, deliveries, and contractor parking. No vegetation removal is required and no high-quality terrestrial habitat for great crested newts lies within the clearance zone (footprint of extension and working area). There were no refuge or hibernation opportunities within the zone of impact: The walls of the building were intact to ground level and the patio slabs set within the ground (i.e., not lifting, or with gaps beneath that newts could use for hibernation). There were no log/rubble piles, loose paving stones/slabs, hedgerow bases, rough grassland or other foraging habitat within the area that will be impacted by the proposed works.

Due to the very low risk of impact, further great crested newt surveys are not recommended. A European Protected Species Licence will not be required to carry out the proposals due to the low/negligible risk of impact to newts, and no loss of potential amphibian habitat. However, precautionary working methods should be implemented to reduce the residual low risk of impact to newts to negligible. A *Non-Licensed Method Statement* is provided in Section 4.2.1 which should be a condition of the planning consent and includes the procedure to follow if protected amphibians are encountered during the ground works, and precautionary working methods.

3.6 Nesting Birds

Nesting birds and their eggs are protected under the Wildlife & Countryside Act 1981.

The outbuilding has low/moderate potential to be used by nesting birds: Small nesting birds could access the outbuilding internally, where ledges at the wall-tops/roof timbers could provide opportunities for nesting.

Timing of works, or a pre-start precautionary nesting bird survey would ensure compliance with legal obligations with regards nesting birds: The main breeding season is between March and August inclusive. Should any works be proposed during the bird breeding season, a nesting bird survey should be undertaken to confirm presence/absence of nests immediately prior to works being undertaken. If nests are identified, there will be a delay to the start of the work until all young birds have fledged.

3.7 Limitations and Assumptions

The baseline conditions reported and assessed in this document represent those identified during a single site survey, on the 20th November 2023. A reasonable assessment of habitats can be made during a single survey; however, seasonal variations cannot be observed. The survey provides an overview of the likelihood of presence of roosting bats, birds, and newts, limited by the transient use of roosting opportunities by bats, and the short-lived nature of some signs (such as droppings). Where no evidence was found, this does not mean that bats do not use the buildings at some stage of the life-cycle. Further surveys are only recommended if there is a significant likelihood that bats/newts may be present and impacted by the proposed extension, based on the suitability of the building, surrounding habitat, connectivity and any direct evidence.

All areas of the site were accessible on the day of the survey. The pond was not accessible but had been described in an Ecology Report for the adjacent construction site (MHE Consulting, 2021).

All constraints were within normal limits and have been taken into consideration when drawing conclusions and recommendations from the survey.

4 Key Recommendations and Precautions

4.1 Further Surveys

Further surveys are not required to inform the planning application, or to comply with wildlife legislation. However, good practice precautionary measures should be implemented (Section 4.2) during the construction phase.

4.2 Precautionary Measures

To ensure compliance with wildlife legislation, avoidance measures and precautionary working methods should be implemented, as detailed below, to enable development of the site without impacting any protected species or habitats.

4.2.1 Great Crested Newts

Great crested newts could be present in the pond 20m from the construction works. However, it is highly unlikely that any great crested newts would use the site clearance/working zone, or be impacted by the construction works, given the very low quality of the habitat within the impact area (predominantly hardstanding/building and paving) for amphibian foraging or hibernation/refuge habitat.

Due to the negligible potential for newts to be impacted or harmed during the construction or operational phase, a protected species licence is not required: The proposed extension/works would not impact on individual great crested newts, or the local conservation status of great crested newts if the precautionary Method Statement detailed below is implemented prior to any works starting on the site, and during the construction phase.

Non-Licensed Method Statement (Amphibians)

- A single access route (existing gravelled driveway) will be used for contractors vehicles from the road to the working zone. Small mini-digger/machinery only will access the site.
- All Contractors will be briefed prior to works starting on the protected species issues at the site, including the potential presence of great crested newts close to the working area. The site induction/briefing will include information on working methods to ensure that the risk of harming protected amphibians is minimized.
- All site-workers will sign an attendance sheet confirming that they have been briefed on protected species issues and understand the legal obligations with regards great crested newts. The signed attendance sheet, along with a copy of this report, must be present on the site at all times during the construction phase.
- If the plans or specification of work changes at any stage of the project, the Project Ecologist must be consulted to ensure that newts (or other protected species) will not be impacted.
- Tall vegetation within the working area (grass or ruderals) must be trimmed prior to start of works, to encourage any animals to leave the area which will be cleared. Once trimmed to a height of 10cm, this must be left for 24 hours before work starts to enable any animals present to leave the clearance areas and access safe, adjacent habitat. Arisings must be raked off the ground clearance zone. This should be programmed outside the sensitive hibernation period (which is usually November to February inclusive – depending on weather and temperatures), and during daylight hours only. The optimal time for works to proceed is between mid-March to mid-June, when most great crested newts will be in ponds.
- No temporary pools of water (such as in trenches) must be allowed to form: All holes/pits will be filled the same day and not left open overnight where possible. Any deep pits left uncovered overnight must have a secured plank to provide an escape route for any animals that may become trapped.
- Storage of materials (such as piles of bricks, skips, or wood), must be raised above the ground on pallets or similar. No rubble piles or loose spoil will be left on the site: This must be removed directly to a skip to cart away or stored in areas raised from the ground.
- Any caustic materials (e.g., cement or lime plaster) that are mixed by hand must be prepared on a tarpaulin that can be folded securely overnight; a board that is removed overnight; or the floor of a sealed building which amphibians cannot access.
- **If great crested newts are discovered at any stage, work must stop immediately while advice is sought from the Project Ecologist or Natural England on how to proceed.**
- **Project Ecologist:** Odette Robson (Robson Ecology Ltd) - 07443 620934

4.2.2 Nesting Birds

A nesting bird survey of the outbuilding should be carried out immediately prior to start of works, if this is within the nesting bird season, to check for active bird nests, and avoid infringing legislation which protects all nesting birds (WCA 1981). If nesting birds are identified, then works to that part of the building (including an exclusion zone – the extent of which would be advised by the project ecologist), must cease until all young birds had fledged and left the nesting area.

If works start outside the main nesting period (end of August to end of February), then a survey is not necessary, if contractors adopt a precautionary approach.

5 Ecological Enhancement (Habitat Boxes)

These additional recommendations would enhance the value of the site for wildlife, as encouraged through the NPPF (MHCLG, 2021), and to help achieve Suffolk biodiversity targets.

5.1.1 Bat Box



A Beaumaris bat box (Figure 5.1 – or similar and approved) should be erected below the eaves on the south-west-facing elevation of the restored outbuilding.

Woodstone boxes are durable and long-lasting. The access hole is at the base so that the boxes are self-cleaning and do not require any maintenance. Bat boxes should be left in perpetuity, and only checked or moved by individuals licenced by Natural England to survey and handle bats.

5.1.2 House Sparrow Terraces

The BoCC red-listed house sparrow has been recorded locally and will readily use nesting boxes. Sparrow terraces, such as the Schwegler 1SP (see Figure 5.1), are suitable for buildings. A house sparrow terrace should be installed as high as possible on the north-east facing elevation of the new extension to the outbuilding, where there is close access to the vegetated garden boundary.

Figure 5.1: Specification of bat and bird boxes:

<p>Beaumaris Bat Box</p> <p>The box is made from durable WoodStone and has a lifetime warranty. Suitable for crevice roosting bats (e.g., pipistrelles) with a black exterior to absorb heat from the sun. WoodStone is strong and has good thermal insulation, reducing temperature fluctuations inside the box. The box should be sited on the south-west-facing elevation of the renovated/extended outbuilding – fixed as high as possible (under the eaves).</p>	
<p>Schwegler 1SP Sparrow Terrace</p> <p>This terrace provides nesting opportunities for three families. Made of wood-concrete mix, this terrace is durable, breathable and will last many decades. The terrace can be fixed on to the surface of a suitable wall or incorporated into the wall. Place the terrace two metres or more above the ground or install directly into the wall. Cleaning is advisable but not necessary. As high as possible at apex of NE-facing gable end of extended outbuilding.</p>	

6 Conclusion

It is likely that the project can proceed with negligible impact on bats, birds, great crested newts or other protected species, if the precautionary working methods are implemented prior to start of siteworks and during the construction phase:

- A pre-start nesting bird survey (or works timed to avoid the nesting season).
- A *Method Statement* (Section 4.2.1) implemented to avoid impact to amphibians - to be covered in a site induction given by the Site Manager to any contractors working on the site/project.

There is scope to further enhance the property for bats and birds through incorporation of the roosting and nesting boxes detailed in Section 5, in line with planning objectives for positive gain for biodiversity through development.

7 References

Bat Conservation Trust. (2009). Bats and lighting in the UK- bats and the built environment series www.bats.org.uk

Collins, J. (ed) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edn.). The Bat Conservation Trust, London. ISBN-978-1-7395126-0-6.

English Nature (2001) Great Crested Newt Mitigation Guidelines. English Nature, Peterborough.

ILP (2023) Institute of Lighting Professionals. Bats and Artificial Lighting at Night. Guidance Note GN08/23.

ILP (2018). Institute of Lighting Professionals. Bats and artificial lighting in the UK Bats and the Built Environment series. Guidance Note 08/18.

IPE (2011) Institution of Lighting Engineers Guidance Notes for the Reduction of Obstructive Light

MHE Consulting (2021) Ecology Report - Proposed Residential Development - Red House Farm, Hadleigh, Suffolk. November 2021.

MHCLG (2021). National Planning Policy Framework. Available to download online from the Government website <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. (2021). The Status of Our Bird Populations: The Fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle Of Man and Second IUCN Red List Assessment of Extinction Risk for Great Britain. *British Birds* 114: 723-747.

Stone, E.L., Jones, G., Harris, S. (2012). Conserving energy at a cost to biodiversity? Impacts of LED lighting on bats. *Glob. Change Biol.* 18, 2458–2465.

Suffolk Biodiversity Information Service Report. 2023. Bat species data search within a 2km Radius of TM 08095 43182. Provided November 15th 2023.

UK BAP from URL <http://jncc.defra.gov.uk/page-5717>

MAGIC (accessed 30th November 2023): Designated site data downloaded from URL <http://www.magic.gov.uk/html>