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Preliminary Ecological Appraisal Incorporating Bat Survey Inspection & Badger Monitoring/Method Statement

Barn Conversion

Wills Ayley Farm

Sewards End

Saffron Walden

Essex

CB10 2LT

Prepared for:

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July 2020

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1. Survey Finding and Recommendations Summary

The search undertaken as part of the desk study concluded that the proposal would not be considered reasonably likely to have any adverse impact upon statutory and non-statutory designated locations.

In summary, the proposed development area comprises a functional agricultural building situated within a hard-standing dominated farm yard setting. As such, the site is subject to disturbance as would be reasonably expected in such a land use context.

Since there was no evidence of bats at the site, a European Protected Species Licence will **not** be required for this project. The building is considered to present a negligible level of roosting potential, and no evidence that would suggest otherwise was identified.

Although no evidence of bats was found, it is probable that bats from nearby roosts will forage across the site and adjacent properties. This behaviour would be expected to continue after any building work has been completed and therefore it is considered that the planning proposal for this site will not have a detrimental effect on the local bat population.

Please note that this survey records the status of the buildings at the time of the survey. However, if more than a year were to elapse before the start of the building work, it is considered unlikely, due to the lack of potential roosting places, that bats would colonise the site during the intervening period.

It is not considered reasonably likely that great crested newt or reptile species would be adversely affected by the development proposals. No further surveys have been advised.

A main badger sett is located on the eastern boundary of the farmyard. Design has evolved such that it can be fully retained. However, full adherence to the method statement in section 5.2 in respect of the construction phase is required. Adherence to the strategy should be secured by way of an appropriately worded planning condition.

Appropriate recommendations in respect of due diligence relating to nesting birds and ecological enhancements have been made in section 5.2 of the report.

It is considered and concluded that the proposal can proceed without adverse impacts upon legally protected/priority species and habitats provided the specific mitigatory guidance and enhancement recommendations identified within section 5.2 are fully adhered to. Where necessary, appropriately worded conditions should be placed upon any consent granted in order to ensure appropriate measures are followed.

Contents

1. Survey Finding and Recommendations Summary.....	3
2. Introduction.....	6
2.1. Phase 1 Brief.....	6
2.2. Bat Survey Brief.....	6
2.3. Development Proposals & Planning Context.....	6
2.4. Scope of Survey.....	6
3. Methodology.....	8
3.1. Survey.....	8
3.1.1. Survey Timings and Conditions.....	8
3.2. Desktop Study & Records Search.....	9
3.2.1. Historical Protected Species Data.....	9
3.2.2. Designations.....	9
3.2.3. Additional Information.....	9
3.3. Bat Survey Methodology.....	10
3.3.1. External/Internal Inspection.....	10
3.4. Badger Monitoring Methodology.....	11
4. Results.....	12
4.1. Desk study Results.....	12
4.1.1. Designations.....	12
4.1.2. Biological Records.....	13
4.2. Survey Results & Analysis.....	15
4.2.1. Site & Surroundings Description & Habitats.....	15
4.3. Potential for Protected Species Impact with Proposals.....	16
4.3.1. Bats & Internal/External Inspections.....	16
4.3.2. Badgers.....	17
4.3.3. Nesting Birds.....	18
4.3.4. Reptiles.....	19
4.3.5. Great Crested Newt.....	19
4.3.6. Hazel Dormouse.....	20
4.3.7. Invertebrates/Plant life.....	21
4.3.8. Other Species.....	21
4.3.9. General Wildlife & Biodiversity.....	21
5. Conclusion & Recommendations.....	22

5.1	Conclusion	22
5.2	Recommendations and Further Action.....	23
1.	Annex 1 – Legislation & Planning Policy.....	25
1.1.	Habitat Regulations.....	25
1.2.	Wildlife & Countryside Act	25
1.3.	Natural Environment & Rural Communities Act	25
1.4.	National Planning Policy Framework (NPPF)	25
1.5.	Biodiversity Action Plans.....	25
1.6.	Local Development Plans.....	26
1.7.	Natural England Standing Advice	26
2.	Annex 2 – Photographs	28
3.	Annex 3 – Habitat Plan & Method Statement Plan.....	35
4.	Annex 4 – Recommended Enhancements	38

2. Introduction

2.1. Phase 1 Brief

T4 Ecology Ltd was commissioned by Mr G. Goddard to undertake an ecological assessment at Wills Ayley Farm, Swards End, Saffron Walden, Essex.

This report contains the findings of a Preliminary Ecological Appraisal-PEA. The Purpose of a PEA is to identify the potential for presence of protected species on a site, in line with European legislation, UK law and the requirements of The National Planning Policy Framework (NPPF)(2019). The brief of the ecological survey was to assess the habitats found on site and identify the potential for presence on site of protected species.

The site-based element is supported by a desktop study undertaken to identify presence of Statutory/National/Local designations or protected species within the vicinity (up to a 5KM radius) of the site. The final part of the project brief was to identify and make recommendations as appropriate for any further surveys required to determine presence/absence of protected species on site if the survey determined that presence of a protected species on site was considered to be reasonably likely.

2.2. Bat Survey Brief

In addition, this report also contains the results of a Preliminary Roost Assessment (PRA) undertaken at the same time as the PEA, comprising an internal/external inspection of the existing building/s. Bats are a strictly protected species under European Legislation. In this regard, given presence of buildings where demolition/alteration works are proposed, the inspection was undertaken in order to meet the specific requirements of the legislation to inform design, mitigation and if appropriate, European Protected Species License Applications.

2.3. Development Proposals & Planning Context

Proposals are for the conversion of an existing functional agricultural building (Barn 2) into residential accommodation.

The following plan(s) have been viewed as part of the assessment:

- Ref: 100:118 01 – Rev C– Site Proposed Site Plan - Ian Abrams Architects

Given availability of proposal plans, it was possible to undertake an assessment of any potential impacts resultant from the specific proposal and recommend further works/appropriate mitigation as appropriate in section 5.2 of this report.

2.4. Scope of Survey

The purpose of this report is to provide an independent opinion of the likely presence of protected species on a site to inform the client of their obligations, and to assist the Local Planning Authority (LPA) in their determination of a planning application.

It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment. This PEA does not constitute a full botanical survey or a Phase 2 preconstruction survey for Japanese Knotweed. In this regard, this survey provides a preliminary view of the likelihood of protected species occurring on site, based on the suitability of the habitat and any direct evidence on site. Additional surveys may be required if it is considered reasonably likely a protected species may be present.

The survey presents a snapshot in time, and therefore makes an assessment purely of what was seen at the time the survey was undertaken. The PEA does not therefore make any retrospective analyses.

3. Methodology

3.1. Survey

Habitats on site were recorded in accordance with the general principles and methods provided in the Handbook for Phase 1 Habitat Survey, JNCC 1993. The survey methodology involves undertaking a site visit to gain an understanding of the site ecology and surrounding characteristics. During the site visit the recording and mapping of habitat types and ecological features present on site is undertaken, including the identification of the main species present. The potential for presence of protected species is assessed as part of the overall methodology, and further advice/surveys recommended as considered appropriate based on the evidence obtained.

The survey works were undertaken in accordance with Guidelines for Preliminary Ecological Appraisal produced by the Chartered Institute of Ecology and Environmental Management (CIEEM) in December 2017.

Methods are also in accordance to the general principles contained within British Standards Institute (BSI) BS42020 – Biodiversity-Code of Practice for Planning & Development.

A habitat plan is included as Annex 3. Photographs are included within Annex 2.

3.1.1. Survey Timings and Conditions

2019

The first survey at the site was undertaken by Consultant Ecologist Peter Harris BSc (hons) MCIEEM on the 21st January 2019. The bat inspection was undertaken by John Dobson Bsc FBNA also on the 21st January 2019. Weather conditions were overcast, with an ambient air temperature of 4°C.

2020 Monitoring and update

Monitoring visits of badger activity were then undertaken on January 10th 2020 and 13th February 2020 by Peter Harris. A final visit was then undertaken on the 30th June 2020 to update the PEA. Weather conditions on the 30th June were 50% cloud cover with an ambient air temperature of 20 °C

Peter Harris is a full member of the Chartered Institute of Ecology & Environmental Management (CIEEM). The surveyor is licenced by Natural England for surveying great crested newts. The surveyor is an ecologist with over 13 years of experience, and has been involved in a wide range of projects from single dwelling developments to large strategic urban renewal schemes subject to full Environmental Impact Assessment (EIA).

As an ecologist for over 13 years, Peter has obtained significant experience in respect of a wide range of protected and priority species. Species worked with include reptiles (surveys/mitigation), great crested newt (surveys/mitigation), badger (surveys/mitigation/licencing), dormouse (surveys) and bat, encompassing a wide

range of survey and monitoring techniques. These include internal/external inspections/Preliminary Roost Assessment (PRA), in addition to involvement with successful bat mitigation license applications working in conjunction with specialist organisations.

John Dobson is a Bat Ecologist and Natural England Licensed Bat Worker & Trainer, Licence reference No. 2015-15258-CLS-CLS. John has been elected a Fellow of the British Naturalists' Association (FBNA) and received the David Bellamy Award for natural history in May 2015. John is a highly experienced bat and mammal ecologist, is the Essex County Mammal Recorder and author of '*The Mammals of Essex*'.

3.2. Desktop Study & Records Search

To gain an understanding of any designations on/around the site in addition to the historical presence of protected species, desktop data has been obtained from the following sources:

3.2.1. Historical Protected Species Data

Records were requested from the Essex Field Club (EFC) Essex Recorders Partnership data search service. The information supplied by EFC is compiled using county records held by the County Recorders of the Essex Field Club, Butterfly Conservation, Essex Amphibian & Reptile Group, Essex Bat Group and provide information upon the records that were available at the time the search was undertaken. Therefore, a protected species records data search was undertaken for records of protected species for a minimum of 1km and a maximum of a 2km radius of the site grid reference, in addition to any other pertinent information relevant to the site.

Records were also provided by Essex Mammal Recorder Mr John Dobson, and have been included in section 4.1.2 of this report.

Use of data is in accordance with CIEEM Guidelines for Accessing & Using Biodiversity Data, March 2016.

3.2.2. Designations

A desktop study was undertaken through MAGIC (Multi-Agency Geographic Information System for Countryside). The search looked to identify the presence of statutory designated sites within a 2km radius (e.g. Special Areas of Conservation (SACs), Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Local Nature Reserves (LNR).

3.2.3 Additional Information

Freely available on-line mapping information and Ordnance Survey Maps were consulted as part of the background assessment.

3.3. Bat Survey Methodology

The PRA was undertaken employing methods based on the guidance described in the Bat Workers' Manual, English Nature's Bat Mitigation Guidelines and updated Bat Conservation Trust Bat Surveys Guidelines for Professional Ecologists (2016).

However, the first page of all three editions includes the following: *The guidelines should be interpreted and adapted on a case-by-case basis according to site-specific factors and the professional judgement of an experienced ecologist. Where examples are used in the guidelines, they are descriptive rather than prescriptive.*

Surveyors are expected to make judgements in respect of methodology appropriate to the survey conditions/evidence noted, and make conclusions based upon experience.

3.3.1 External/Internal Inspection

The first section of the survey involved an external inspection of the external surfaces of the buildings to identify any features that could be potentially be utilised by bats for roosting purposes. Such features may include small gaps and openings in brick work/roof structure, broken or missing tiles, or gaps in the soffits. During the external inspection, the buildings were also examined for key indicators of bat activity, such as droppings/staining in areas such as window ledges, walls other suitable external structural features.

The second section of the survey involved an inspection of internal areas of the buildings where safe access was possible. The purpose of the inspections was to identify whether there is any evidence of bat activity/roosting. Again, indicators of evidence such as droppings, fur deposits, scratching and staining were searched for, in addition to features such as insect remains that may have been brought into a building by a bat. In addition, issues such as structural integrity of the buildings, and whether the building has structural features such as enclosed/hidden roof spaces are taken into account.

An Xtend & Climb Pro Ladder and a ProVision 300 endoscope were available to inspect crevices in brickwork and around beams.

An assessment of any vegetation potentially affected by the development proposals was also undertaken where appropriate.

3.4 Badger Monitoring Methodology

The purpose of the monitoring visits were to determine whether the holes previously identified on site/on boundaries of site were in use by badger.

During the survey, the following signs were looked for:

- Additional holes/setts
- Footprints
- Badger Runs
- Hairs
- Latrines
- Scratching posts
- Snuffle forage holes.

The information gained from the monitoring would identify whether the holes are in use by badger, and whether a disturbance licence/mitigation would be required.

4. Results

4.1. Desk study Results.

Record searches are by no means exhaustive, and certain species including reptiles and great crested newt are under recorded nationally. In addition, many of the records can be considered too old or may be unverified. However, the records provide an indication of the species of note historically found.

Site Details

- The site is located at Central Grid Reference: TL 57855 38790
- Postcode: CB10 2LT

4.1.1. Designations

The site is not situated within, nor bounding any statutory designated location. The following statutory designated locations are situated within a 5km radius of the site:

- Hales Wood National Nature Reserve (NNR) and Hales Wood and Shadwell Site of Special Scientific Interest (SSSI) – Approx. 2.5km north west.
- Ashdon Meadows SSSI – Approx. 2.5km north east.
- Langley Wood SSSI – Approx. 4.8km north east.
- Nunn Wood SSSI – Approx. 4.8km north west.

No other statutory designated locations are situated within a 5km radius of the site.

Impact Assessment

Whilst it is acknowledged that there are statutory designations of National importance within a 5km radius of the site, it is also acknowledged that the proposal relates to the conversion of an existing functional agricultural building within the curtilage of an existing farm yard, and the proposal is of small scale. As such, it is not considered reasonably likely that the proposal would have any adverse impact upon the offsite statutory designated locations.

Designations-Non-Statutory

Local Wildlife Sites (LWS) or Sites of Importance for Nature Conservation (SINC) are used in the planning system to protect areas that have substantive nature conservation value at a local level.

The site is not directly situated within nor bounds an LWS location. The site is situated approximately 0.7km west of Oak Wood and Homestead Grove LWS locations.

Impact Assessment

The site is not situated within nor bounding any LWs locations. As identified above, the proposal relates to the conversion of an existing building within the curtilage of an existing farmyard (see section 4.2) and is of small scale. As such, it is not considered reasonably likely that the proposal would have any adverse impact upon the offsite non-statutory designated locations.

4.1.2. Biological Records

The records have been analysed as part of the desk research and considered as part of the conclusions and subsequent recommendations of this report. A summary of some of the records is provided below:

Great Crested Newt/Amphibian

No records were identified in respect of GCN.

A single record for common frog was identified 1km from site, dating from 2017.

Reptile

No records were identified in respect of reptile species.

Bats

The search identified the following records in respect of bat species:

Species	No. Records	Date Range	Closest to site
W. Barbastelle	1x Record	2016	1.4km
C. Pipistrelle	6x Records	2003-2016	0.9km
S. Pipistrelle	1x Record	2016	1.4km
Pipistrelle sp.	2x Records	2016-2017	1.4km
B. Long eared	3x Records	2016-2017	1.4km

Since the early 1980s, the Essex Bat Group has monitored the status and distribution of bats in this area. Records occurring within a 2km radius of the site are as follows:

10 Apr 2010	Common Pipistrelle recorded foraging
09 Aug 2014	Common Pipistrelle recorded foraging
10 Apr 2010	Common Pipistrelle recorded foraging
10 Apr 2010	Common Pipistrelle recorded foraging
10 Apr 2010	Common Pipistrelle recorded foraging

09 Aug 2014 Common Pipistrelle recorded foraging
20 Jun 2018 Natterer's Bat roost in building
20 Jun 2018 Soprano Pipistrelle recorded foraging
25 Aug 2018 Common Pipistrelle recorded foraging
22 Aug 2018 Brown Long-eared Bat roost in building
09 Aug 2014 Common Pipistrelle recorded foraging
10 Apr 2010 Common Pipistrelle recorded foraging

Hazel Dormouse

No records were identified within the search radius.

Western Hedgehog

1 record was identified dating from 1995, 1.8km from site.

4.2. Survey Results & Analysis

4.2.1 Site & Surroundings Description & Habitats

The site is situated approximately 1km to the north east of Swards End Village.

Wills Ayley farmyard is situated within an arable, agricultural area. To the north/north west, New House Lane runs along the north western perimeter. Arable, agricultural land use is situated on the opposing side of the road. Farm house dwellings/associated gardens and arable fields bound the site to the west, with arable fields located to the east and south. Grazing/exercise paddock is situated to the south east, adjacent to a pond located approximately 45m to the south east of the site.

Within the site survey boundary, the main body of the site comprises a farm yard formed of concrete hard standing and compacted gravel/road fines. The main body of the site is dominated by disturbed hard standing, and comprises very little vegetation. The wider farmyard site contains a range of active farm and converted residential buildings and the site is actively used. The building subject to the proposed development is described and considered further in section 4.3.1.

The proposed development area comprises the building, which is bounded by hard standing, with scrub colonisation on the northern side.

To the east/south east of the survey building is a large mound/bund of soil and rubble located towards the boundary with the adjacent field, situated on the south eastern perimeter of the site. The bund is vegetated with self-set vegetation including bramble, common nettle and elder. In addition, active badger setts were identified on the mound, with positions identified on the plan contained within Annex 3. This is considered further in section 4.3.2.

In summary, the proposed development area comprises functional agricultural buildings situated within a hard-standing dominated farm yard setting. As such, the site is subject to disturbance as would be reasonably expected in such a land use context.

4.3. Potential for Protected Species Impact with Proposals

The site was assessed for the potential presence of protected species that may have a material impact upon the development proposals.

The ecological value of the site in respect of the potential presence of and impact upon protected species is considered further in the following sections:

4.3.1. Bats & Internal/External Inspections

All bat species are strictly protected under the Wildlife and Countryside Act 1981 and the Conservation Regulations (Habitat Regulations).

The locations of buildings described are illustrated on the plan contained within Annex 3.

Building

This is a secure, block-built storage shed with a corrugated tin roof supported on a metal frame. The interior receives daily disturbance and has eight strip lights fitted to allow evening use. There was a lack of features that might be occupied by bats and no evidence of their presence was found on the floor and walls of the building or on items stored within it. It has a negligible level of roosting potential, and further surveys are neither necessary nor appropriate.

Vegetation/Foraging/Commuting

There is no vegetation on site affected that has crevices, loose bark or woodpecker holes that might be colonised by bats. No trees would be lost or affected by the development proposal.

Although no evidence of bats was found, it is probable that bats from nearby roosts will forage across the site adjacent properties. This behaviour would be expected to continue after any building work has been completed and therefore it is considered that the planning proposal for this site will not have a detrimental effect on the local bat population.

Impact Assessment

Bats are inquisitive, highly mobile animals, which constantly investigate their surroundings, evaluating good feeding areas and potential roosting opportunities. Where suitable habitat such as woodland, woodland edge or sheltered pasture occurs, bats will travel up to several kilometres to take advantage of this resource. To reach favoured sites, small bats will follow linear landscape features such as hedgerows, streams and lanes etc. The absence of such features can make an otherwise suitable site inaccessible to bats. In addition, new roosts will become established in such areas - examples being the rapid colonisation of artificial roost boxes placed in conifer forests or the occupation of new houses by nursery colonies of pipistrelle bats within a year or two of their completion.

Since there was no evidence of bats at the site, a European Protected Species Licence will **not** be required for this project. The building is considered to present a negligible level of roosting potential, and no evidence that would suggest otherwise was identified.

Although no evidence of bats was found, it is probable that bats from nearby roosts will forage across the site and adjacent properties. This behaviour would be expected to continue after any building work has been completed and therefore it is considered that the planning proposal for this site will not have a detrimental effect on the local bat population. It is advised that enhancements be included within the proposal, as identified in section 5.2.

Please note that this survey records the status of the buildings at the time of the survey. However, if more than a year were to elapse before the start of the building work, it is considered unlikely, due to the lack of potential roosting places, that bats would colonise the site during the intervening period.

4.3.2. Badgers

Badgers and active setts are afforded protection under the Protection of Badgers Act 1992.

January 2019

In January 2019 four suspected active badger sett entrances were identified within the soil/rubble mound situated on the eastern perimeter of the site.

January 2020/February 2020

In the space of 1 year, it was identified that the level of badger activity had increased significantly, with 10 active holes identified within the wider mound along the eastern boundary. Given the extent of activity noted and the amount of holes present, it is considered that a main sett had developed in the intervening period.

June 2020

Whilst vegetation had become considerably denser since the last February 2020 visit, it was possible to identify the presence of suspected active holes, with 6 identified within a 30m radius of the application building.

Impact Assessment

The badger sett holes are located entirely within a large soil mound, on the boundary with the adjacent field, as illustrated on the plan contained within Annex 3. There are no sett holes located within the proposed development footprint.

The proposed development has evolved such that the mound can be retained in its entirety, and no sett loss, damage or closure is required given that the proposal relates to the conversion of the existing building, and within the footprint of already developed land (building & existing slab). Following consultation and discussion with

the Applicant and project architect, the existing hard standing slab located to the east of the building and the mound will be fully retained and protected.

In addition, the implementation of the proposal will not result in any loss of or alter access to foraging grounds, and there is no risk of the species becoming isolated. Given that the site is already developed and the proposal relates to a developed building, the relationship between the sett and foraging grounds in and around the wider yard and adjacent farmland will remain unaltered by the development, so there is no risk of impacting adversely upon the viability of the population.

In consideration of the specific potential impacts of the construction phase upon the active sett entrances, guidance from Natural England titled 'Interpretation of Disturbance in relation to badgers occupying a sett' (June 2009) states the following:

"Development, or other activities occurring close to badger setts (use of hand tools and/or machinery), where there is no reason to believe that the 'disturbance' will be greater than that which badgers commonly tolerate, and therefore any badger(s) occupying the sett are unlikely to be disturbed".

In consideration of the above, it should be noted that the active sett entrances are located outside of the proposed development area in a mound. Given the dominance of hard standing slab surrounding the building, it is highly unlikely that sett holes would or could be developed within the application area. In addition, no significant demolition is required, the existing hardstanding slab will stay in place and the setts are already located next to an active farmyard with machinery and materials storage in close proximity. As such, noise associated with vehicles and people is already commonplace. Therefore, taking into account the existing levels of disturbance to which the badgers are obviously tolerant and the evolution of scheme design (mitigation by design) to enable full sett retention, it is considered and concluded that the sett and badger therein would be tolerant to the disturbance resultant from construction activities.

A development licence is not required. However, appropriate methods and precautions identified in section 5.2 should be fully adhered to during the construction phase. Adherence to this method statement should be secured by way of planning condition upon consent.

4.3.3. Nesting Birds

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

The survey building may present some limited nesting habitat. No evidence of use by barn owl/other owl species was identified, and the building does not have potentially suitable perch locations or access. As such, the building is unsuitable for barn owl and no evidence that would suggest otherwise was identified.

As general best practice guidance prior to future works/maintenance, the bird breeding season is from March to September. If works to buildings/vegetation is proposed during the season, a check should be made for nests prior to works

commencing. If nests are present, they should be left intact and undisturbed until the young have fledged.

Impact Assessment

Provided works are undertaken during appropriate seasonality/due diligence as recommended above, the proposals would not have any impact upon nesting birds.

New opportunities for nesting birds will be provided through provision of nesting boxes located within/on the building, in addition to any new planting undertaken as part of the proposal.

Further general recommendations in respect of enhancements have been made in section 5.2 and Annex 4.

4.3.4. Reptiles

Reptiles are afforded protection under the Wildlife & Countryside Act 1981, with smooth snake and sand lizard afforded full protection under the same act and the Conservation Regulations (Habitat Regulations).

As described in section 4.1, the main body of the site comprises and hard standing dominated farmyard, with the proposals relating to the proposed conversion of an existing building. Whilst there are unmanaged sections on the margins of the site including the mounds on the eastern side, these are isolated. The dominant land use of intensive, arable agriculture in all directions bounding the site rules out potential connectivity with locations that would provide potential connectivity habitat. The species would not be considered at risk as part of the proposal.

Impact Assessment

As identified above, the proposed development area is not considered to provide potentially suitable reptile habitat as a result of existing land/surrounding land uses and management regimes. Based upon the evidence above, it is not considered reasonably likely that reptile species are present on site given lack of suitable habitat on site/connectivity to suitable offsite habitats. Therefore, the risk of potential impact of the proposals upon the conservation status of reptile is negligible. The risk of potential impact of the proposals upon individual reptiles is also considered to be low. No further surveys are necessary in respect of reptile species.

4.3.5. Great Crested Newt

Great crested newt is strictly protected under the Wildlife and Countryside Act 1981 and the Conservation Regulations (Habitat Regulations).

No ponds or water bodies are situated on site nor would be lost to the proposal. Given the disturbed active farm yard use of the site and domination of hard standing/buildings, it is not considered reasonably likely to provide potential terrestrial dispersal habitat.

Distance from a potentially suitable water body and intervening land use is a critical factor in determining suitability for the species. As such, a search using mapping data was undertaken to identify ponds within a 500m radius.

The nearest pond is situated approximately 45m to the east of the site, and is bounded by both arable land use and grazing paddock. The pond is approximately 900m² in area, and subject to avian usage and stocked with fish. The combined factors of fish, avian disturbance, location immediately adjacent to intensive arable land (and associated run-off) in addition to isolation from other water bodies means that it is of lesser likelihood that the species would be present. In addition, given the type of development proposal relating to an existing building located within an active farm yard location, risk of harm to the species is considered negligible.

Whilst it is acknowledged that small numbers of GCN have been known to range significant distances (1km) to colonise new ponds, sometimes over a number of years if connective habitat is suitable, research undertaken by English Nature¹ (now Natural England) indicates 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. This valuation of habitats according to distance from great crested newt breeding ponds has also been adopted as part of Natural England's European Protected Species application form, with specific reference to the guidance provided by Natural England in WMLa14-2.

It is acknowledged that there is no way of identifying whether there are other small ponds that may be hidden within any nearby dwellings and not shown on maps. None were immediately visible from site/analysis of mapping data. Identification of such ponds located on private property and not shown on maps cannot be reasonably expected as part of this survey/desk study.

Impact Assessment

Based upon the evidence above, it is not considered reasonably likely that great crested newt would be affected by or at risk from the development proposals. The proposals are of small scale, and relate to an already developed site. Risk of harm to the species is not considered a reasonable likelihood.

Consequently, it is considered that the risk of potential impact of the proposals upon the conservation status of great crested newt is negligible. The risk of potential impact of the proposals upon great crested newt is also negligible. No further surveys are considered necessary or appropriate in respect of this species at this site.

4.3.6 Hazel Dormouse

Hazel dormouse is strictly protected under the European Habitat Regulations and the Wildlife and Countryside Act 1981.

No potentially suitable habitats would be lost/impacted as a result of the proposal, and the site does not have connectivity with recorded habitats.

Impact Assessment

No further surveys are considered necessary or appropriate and the proposal would not have any impact upon the species.

4.3.7 Invertebrates/Plant life

Given the precedent of existing land use and location, the site is unlikely to support significant assemblages of invertebrates or a varied plant life. No further surveys are considered to be necessary or appropriate.

Installation of new landscape planting within the consented proposal would provide invertebrate habitat on the site post-development. Night scented plant species such as evening primrose, honeysuckle and jasmine would also attract moths in the evening, which would in turn attract foraging bats.

Recommended general enhancements are identified in section 5.2.

4.3.8 Other Species

The site is not situated in a location, nor provides potentially suitable habitat where other protected species such as, water vole and otter would be considered at risk. No further surveys/precautions are considered necessary or appropriate.

4.3.9 General Wildlife & Biodiversity

It is acknowledged that the wider site and development area may be utilised by a range of transitory wildlife species including fox, hedgehog etc.

Impact Assessment

As part of appropriate due diligence, it is advised that the full range of recommendations identified in section 5.2 be fully implemented, and all reasonable enhancements incorporated into a development proposal such that biodiversity is maximised as part of the development.

In addition, to enable wildlife to continue using the development area post development, it is advised that boundaries remain relatively open as per the current situation such that wildlife can continue to radiate in the area. This includes the use of permeable boundaries such as tree lines and hedgerows, in addition to leaving hedgehog gaps in any new fencing proposals.

5. Conclusion & Recommendations

5.1 Conclusion

The search undertaken as part of the desk study concluded that the proposal would not be considered reasonably likely to have any adverse impact upon statutory and non-statutory designated locations.

In summary, the proposed development area comprises a functional agricultural building situated within a hard-standing dominated farm yard setting. As such, the site is subject to disturbance as would be reasonably expected in such a land use context.

Since there was no evidence of bats at the site, a European Protected Species Licence will **not** be required for this project. The building is considered to present a negligible level of roosting potential, and no evidence that would suggest otherwise was identified.

Although no evidence of bats was found, it is probable that bats from nearby roosts will forage across the site and adjacent properties. This behaviour would be expected to continue after any building work has been completed and therefore it is considered that the planning proposal for this site will not have a detrimental effect on the local bat population.

Please note that this survey records the status of the buildings at the time of the survey. However, if more than a year were to elapse before the start of the building work, it is considered unlikely, due to the lack of potential roosting places, that bats would colonise the site during the intervening period.

It is not considered reasonably likely that great crested newt or reptile species would be adversely affected by the development proposals. No further surveys have been advised.

A main badger sett is located on the eastern boundary of the farmyard. Design has evolved such that it can be fully retained. However, full adherence to the method statement in section 5.2 in respect of the construction phase is required. Adherence to the strategy should be secured by way of an appropriately worded planning condition.

Appropriate recommendations in respect of due diligence relating to nesting birds and ecological enhancements have been made in section 5.2 of the report.

It is considered and concluded that the proposal can proceed without adverse impacts upon legally protected/priority species and habitats provided the specific mitigatory guidance and enhancement recommendations identified within section 5.2 are fully adhered to. Where necessary, appropriately worded conditions should be placed upon any consent granted in order to ensure appropriate measures are followed.

5.2 Recommendations and Further Action

Following the survey, the following recommendations have been made to ensure obligations in respect of protected species are met/the site is enhanced for the benefit of biodiversity if developed. The recommendations are considered to be appropriate and in context with the size of the proposals and based upon the findings of the impact assessment section of the report (4.3.1 – 4.3.9).

Badger Method Statement

Design stipulations

- The concrete slab to the east of the building shall be retained in entirety. Any works to remove the slabs may result in disturbance to the soil mounds within which the badger setts are located. Provisions for fencing installation in the slab are provided below.

The following Methods should be fully adhered to during the construction phase:

- As the first activity on site, prior to any demolition or construction, Heras Fencing should be installed on the lineage illustrated on the plan MH946-002 contained in Annex 3:
- The fencing should be located on foot blocks, marked with appropriate signage, and left in **situ for the entire construction phase**, and removed as the last activity on site.
- In addition, use of heras fencing around the boundary of the construction area is strongly encouraged to discourage badger entering the site during the construction phase.
- As illustrated on plan MH946-002 in Annex 3, the storage of vehicles, machinery, chemicals, site welfare and materials to be limited to the south/west of the building on existing hard standing, within a fenced off compound.
- Holes for the fence installation on the eastern boundary shall be installed as using hand tools to break the slab, and the holes for posts then dug by hand. Given the location of the setts, such actions will not risk hole/chamber disturbance.
- All site operatives to be made aware by site managers of the protection afforded to badger. Should evidence of active badger setts be identified/suspected in any other location on/immediately adjacent to site, works should cease and the project ecologist contacted in order to undertake further investigations/make appropriate recommendations.

Nesting Birds

- As general guidance, the bird breeding season is from March to September. If works to buildings/vegetation are proposed during the season, a check should be made for nests prior to works commencing. If nests are present, they should be left intact and undisturbed until the young have fledged.

Enhancements

- The following ecological enhancements are recommended:
 - 1 x integral bird per new building;
 - 1x integral bat box per new building;
 - Wildlife friendly species in the landscape scheme; and
 - Suggested habitat boxes/plant species are provided within Annex 4.
- To enable wildlife to continue using the development area post development, it is advised that boundaries remain relatively open such that wildlife can continue to radiate in the area. This includes the use of permeable boundaries such as tree lines and hedgerows, in addition to leaving hedgehog gaps in any new fencing proposals.

1. Annex 1 – Legislation & Planning Policy

1.1. Habitat Regulations

The Conservation of Habitats and Species Regulations transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (Habitats Directive) into English law, making it an offence to deliberately capture, kill or disturb wild animals listed under Schedule 2 of the Regulations. It is also an offence to damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time).

1.2. Wildlife & Countryside Act

The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act (CROW) 2000 and the Natural Environment and Rural Communities Act (NERC) 2006, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive), making it an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 to the Act, (which includes Cirl Bunting) or its dependent young while it is nesting;
- Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act; intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act; intentionally or recklessly disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection;
- Pick or uproot any wild plant listed under Schedule 8 of the Act.

Sites of Special Scientific Interest (SSSI) are designated under this Act.

Special Protection Areas (SPA) are strictly protected sites, designated under the Birds Directive, for rare and vulnerable birds and for regularly occurring migratory species.

1.3. Natural Environment & Rural Communities Act

The NERC 2006 places a duty on authorities to have due regard for biodiversity and nature conservation during the course of their operations.

1.4. National Planning Policy Framework (NPPF)

The NPPF February 2019 (Paragraphs 170-183) are specific in respect of conservation and biodiversity. ODPM 06/2005 remains in place. NPPF places a duty on planners to make material consideration to the effect of a development on legally protected species when considering planning applications, with a focus upon sustainable development and biodiversity net-gain.

1.5. Biodiversity Action Plans

The UK Biodiversity Action Plan (UKBAP) (Anon, 1995) was organised to fulfil the Rio Convention on Biological Diversity in 1992, to which the UK is a signatory. A list of

national priority species and habitats has been produced with all listed species/habitats having specific action plans defining the measures required to ensure their conservation. Regional and local BAPs have also been organised to develop plans for species/habitats of nature conservation importance at regional and local levels.

1.6. Local Development Plans

County, District and Local Councils have Development Plans and other policy documents that include targets and policies which aim to maintain and enhance biodiversity. These are used by Planning Authorities to inform planning decisions.

1.7. Natural England Standing Advice

Natural England has adopted national standing advice for protected species. It provides a consistent level of basic advice which can be applied to any planning application that could affect protected species. It replaces some of the individual comments that Natural England has provided in the past to local authorities.

1.8. Bats

All species of bat found in the UK are protected by law and are designated as a protected species. Paragraph 98 of Circular 06/2005 states that *'the presence of a protected species is a **material consideration** when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.'*

Bats are protected under UK legislation under The Wildlife and Countryside Act 1981 through inclusion on Schedule 5 -Protected bat species in Britain. On a European basis, bats are subject to protection under the Conservation (Natural Habitats &c.) Regulations.

The November 2017 the Conservation (Natural Habitats &c.) Regulations make it an offence to:

- Intentionally or deliberately kill, injure or capture (take) bats.
- Intentionally or recklessly damage or destroy bat roosts or disturb bats.

A bat roost is defined as 'any structure or place which is used for shelter or protection', whether or not the bats are utilising the roost at the time. European protected animal species and their breeding sites or resting places are protected by the Habitat Regulations.

In this regard, it is an offence for anyone to deliberately capture, injure or kill any such animal or to deliberately take or destroy their young/eggs as applicable. It is also an offence to damage or destroy a breeding or resting place of a European Protected Species and it is an offence to possess a European Protected Species.

The threshold above which a person will commit the offence of deliberately disturbing a wild animal of a European protected species has been raised. A person will commit

an offence only if he deliberately disturbs such animals in a way as to be likely to significantly affect:

- The ability of any significant groups of animals of that species to survive, breed, or rear or nurture their young, or;
- The local distribution of abundance of that species.

The existing offences such as obstruction of a bat roost, low-level disturbance, and sale which cover European Protected Species under the Wildlife and Countryside Act (1981) continue to apply.

2. Annex 2 – Photographs



South-western (gabled) and north-western elevations



Western elevation



Eastern elevation



Existing slab located to east of building to be retained



North eastern elevation



Northern elevation



Looking north-eastwards in the block store



Looking south-eastwards in the block store



Active badger sett within eastern boundary mound



Active badger sett within eastern boundary mound



Active badger sett within eastern boundary mound

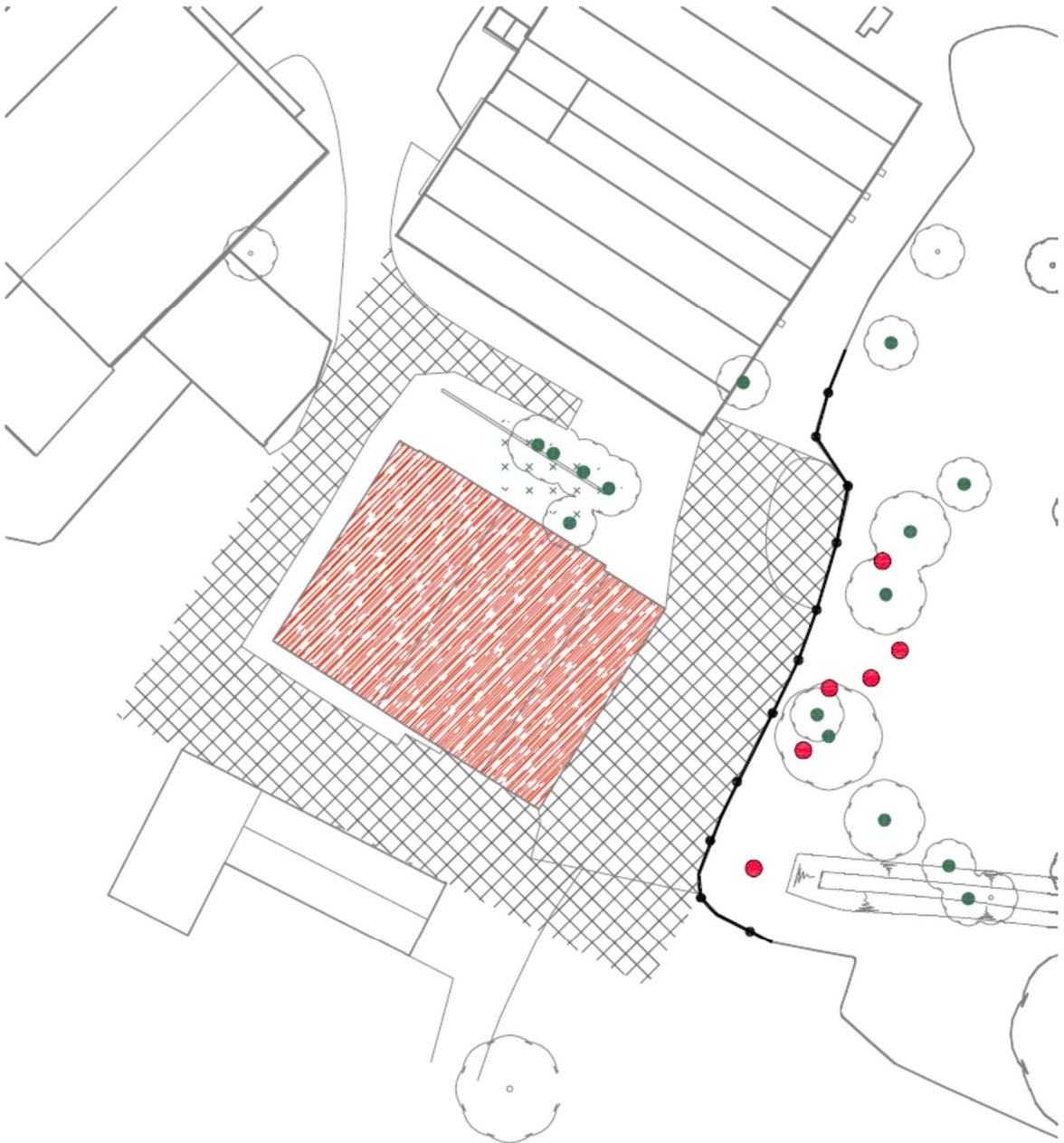


Badger footprints









Hard standing slab and mound on eastern boundary



3. Annex 3 – Habitat Plan & Method Statement Plan



KEY

-  Scattered scrub
-  Broad-leaved tree
-  Earth bank
-  Concrete / gravel hardstanding
-  Building
-  Active Selt Entrance



 Extended Phase 1 Habitat Survey
 Wills Ayley
 MH946-01 revA
 1:400 @A4 Jul 2020
T4 ECOLOGY LTD
ECOLOGICAL CONSULTANCY SERVICES, WALTON, ESSEX





KEY

-  Broad-leaved tree
-  Earth bank
-  Existing hardstanding
-  Posts for new fencing to be hand dug
-  New hardstanding
-  New landscaping
-  Protective fencing
-  Storage / parking during works

Badger Method Statement

Wills Ayley

proj no: MHS46-2

scale: 1:400 @A4 date: Jul 2020

T4 ECOLOGY LTD
ECOLOGY CONSULTANCY SERVICES NALBON, ESSEX



4. Annex 4 – Recommended Enhancements

Recommended enhancements/suitable planting species.

The following hedgerows/shrub and smaller tree species could be utilised accordingly:

- Hawthorn *Crataegus monogyna*
- Ash *Fraxinus excelsior*
- English Elm *Ulmus procera*
- Field Maple *Acer campestre*
- Hazel *Corylus avellana*
- Dog Rose *Rosa canina*
- Elderberry *Sambucus nigra*
- Holly *Illex aquifolium*
- Blackthorn *Prunus spinosa*
- Rowan *Sorbus aucuparia*
- Guelder Rose *Viburnum opulus*
- Silver Birch *Betula pendula*
- Alder *Alnus glutinosa*
- Cotoneaster spp.
- Spindle *Euonymus europaeus*

The following species could also be considered within the landscaping scheme as appropriate, given their wildlife friendly/native characteristics:

- Viburnum sp.
- Californian Lilac *Ceanothus sp.*
- Lavander *Lavandula angustifolia*
- Hebe Sp.
- Privet *Ligustrum vulgare*
- Dogwood *Cornus sanguinea*

In addition, vertical areas on sides of buildings and/or boundary fences could be utilised to provide additional habitat. Suitable species to grow on vertical habitats could include:

- Ivy *Hedera helix*
- Clematis *vitalba*
- Honeysuckle *Lonicera periclymenum*

Bulbs and small, wildlife friendly annuals and biennials can also be utilised within wildlife friendly and garden planting where considered appropriate by the landscape architect. Suitable species could include:

- *Hypericum perforatum*
- Wood Anemone *nemorosa*
- Tustan *Hypericum androsaemum*
- Foxglove *Digitalis grandiflora*
- Bluebell *Hyacinthoides non-scripta*

Dependant on soil condition, British Seed House RE1 mix (or similar product) is recommended for installation of the species rich grass areas where required. Alternatively, turf already seeded with wild flower seed could be utilised.

Recommend species are likely to include:

- Slender Creeping Red Fescue *Festuca rubra ssp litoralis*
- Crested Dogs Tail *Cynosurus cristatus*
- Common Bent *Agrostis capillaris*
- Cocksfoot *Dactylis glomerata*
- Meadow Fescue *Festuca pratensis*
- Golden Oat Grass *Trisetum Flavascence*
- Sweet Vernal Grass *Anthoxanthum odoratum*
- Ribwort Plantain *Plantago lanceolata*
- Yarrow *Achillea millefolium*
- Common Knapweed *Centaurea nigra*
- Meadow Sweet *Filipendula ulmaria*
- Lady's Bedstraw *Galium verum*
- Ox eye daisy *Leucanthemum vulgare*
- Self Heal *Prunella vulgaris*
- Meadow Buttercup *Ranunculus acris*
- Bulbous Buttercup *Ranunculus bulbosus*
- Agrimony *Agrimonia eupatorium*
- Rough Hawkbit *Leontodon hispidus*
- Yellow Rattle *Rhinanthus minor*
- Common Birdsfoot Trefoil *Lotus corniculatus*
- Salad Burnett *Sanguisorba minor*
- Harebell *Campanula rotundifolia*
- Cowslip *Primula deorum*
- Field Poppy *Papaver Rhoeads*
- Wild Thyme *Thymus Serpyllum*
- Quaking Grass *Brizia Media*
- Pignut *Conopodium majus*

Using Seeds

Seed Bed Preparation

Whilst seeds can be sown at any time, the best time to prepare the meadow bed is summer. The top grass, and top inch of top soil should be removed if possible. The most important factor is to ensure that the seed bed is weed free, and level using roller/rake. Also, remove stones in areas of seedbed, Wildflower meadows from seed are most successful when soil fertility is low and weeds can be less vigorous.

Sowing Seed

The best time to sow the seeds is in spring or early autumn. Spread seeds in a sand mix using a spreader for even distribution at a density of approx. 4 grams per sq. metre.

Using Plugs

Use of wildflower plugs is generally more reliable, and gives quicker results than using seed. However, over large areas, density of plugs can be reduced, with 1 or 2 plugs per square metre. Generally, plugs can be installed at any time but spring/autumn are optimum months.

Using Turf Impregnated with seeds

Use of turf less dependent on soil conditions as the seed are already in place. This enables more variety of species. However, to be successful, it should be installed in free draining areas that do not become water logged.

Wildflower Plugs and seeds are available from a number of online suppliers:

www.wigglywigglers.co.uk

www.bostonseeds.co.uk

www.wildflowershop.co.uk

www.reallywildflowers.co.uk

www.wildflower.org.uk

www.meadowmania.co.uk

Sections of turf already seeded are also available from the following suppliers:

www.meadowmat.co.uk

www.wildflowerturf.co.uk

www.wigglywigglers.co.uk

Habitat Boxes.

The use of bird and bat boxes has been recommend. Suitable products include:



Standard Bird Box-Suitable for a wide variety of species.
Can be installed in trees and buildings.



Schwegler 2F Bat box. Suitable for attachment to trees.

Buildings-Integral Bat Boxes

The construction of new buildings presents the opportunity for integral bat boxes, installed during the construction phase.

Products such as the Ibstock Range (www.ibstock.com) would be appropriate for installation in the eaves of the new dwellings, as installed as illustrated below:



Ibstock Integral Bat Box

It is considered that the installation of one such integral bat box on the south/east facing eave of each new building would be appropriate, installed in accordance with the specific manufacturers recommendations.

Aftercare

Bats are a protected species, and any object they utilise for roosting is therefore also protected. Therefore, following installation the bat boxes should not be disturbed, as disturbance may result in an offence under the Wildlife and Countryside Act (1981) and the European Habitat Regulations (2010). Bat boxes are very robust and will not require maintenance, and therefore are at their most effective if left undisturbed.

Buildings-Integral Bird Boxes

Integral bird boxes should be installed on the north/east facing eaves. A system such as the Bird Brick House (www.birdbrickhouses.co.uk) as illustrated below is recommended, installed in accordance with the manufacturers specific recommendations.



Bird Brick House System

Installation

The following should be taken into account in consideration during the installation of bird boxes suitable for a wide variety of common garden species.

- These should be placed away from cats, and at least 2m from ground level.
- These should where possible be located away from direct sunlight, ideally facing between north and east (not south), away from cats, and at 2-5m height.
- They should also be out of reach of windows when placed upon buildings.