

T4 ECOLOGY LTD

ECOLOGY CONSULTANCY SERVICES, MALDON, ESSEX



Preliminary Ecological Appraisal Incorporating Bat Survey Inspection

Barns at Farrowbury Cottage

Lower Green

Wimbish

Essex

CB10 2XH

Prepared for:

S. Tunstill

June 2022

T4ecology Ltd

Heybridge
Maldon
Essex

Tel: 07546 946715

Email: Info@train4ecology.co.uk

Web: www.t4ecology.uk

Report Reference MH1456 Version FNL-Dated 07/06/22

Peter Harris Bsc (hons) MCIEEM FRGS

1. Survey Finding and Recommendations Summary

In summary, the proposed application area comprises the existing buildings and managed/grazed paddock situated within the wider context of further paddock bounding garden and residential dwelling land uses. As such, the site and surrounds are subject to management and disturbance as would be reasonably expected in such a land use context.

The designation search undertaken as part of the desk study identified that the site is not situated within nor bounding any statutory or non-statutory designated locations. It is not considered reasonably likely that the proposal would have any adverse impact upon statutory or non-statutory designated locations.

The buildings are considered to offer a negligible level of bat roosting potential. Further surveys are neither necessary nor appropriate in respect of the buildings.

No trees with roosting potential above a 'Low' level are situated within the proposed development area. Should any tree works/removals be required to the trees located in close proximity to the buildings, standard due diligence should be exercised during any future works, as recommended in section 5.2.

Small numbers of bats may commute and forage across the wider site. However, existing boundary tree lines to the north and west of the buildings and paddock would be retained and as such, it is reasonable to conclude that any such behaviours would continue post development. It is not considered that the proposal would have any adverse impact upon the local bat population.

Small scale, proportionate ecological enhancement recommendations for the project including low impact lighting during the construction and completed phase and use of bat boxes have been provided in section 5.2.

It is not considered reasonably likely reptile species would be adversely affected by the development proposals given existing land use, management and associated absence of potentially suitable habitat/connectivity to suitable habitat. Whilst no further surveys are necessary and risk to the species is considered low, a precautionary Non-Licensed Method Statement is advised in respect of great crested newt. Such a document should be requested by way of an appropriately worded condition upon consent.

No active or inactive badger setts were found, and no surveys have been advised. However, general appropriate precautionary measures for the construction phase have been advised in section 5.2.

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 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.

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2. Introduction

2.1. Phase 1 Brief

T4 Ecology Ltd was commissioned by S. Tunstall to undertake an ecological assessment at Farrowbury Cottage Barns, Lower Green, Wimbish, 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 UK law and the requirements of The National Planning Policy Framework (NPPF)(2021). 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

2.3. Development Proposals & Planning Context

Proposals are for the conversion of existing workshop/storage building.

Given availability of proposal plans, it was possible to undertake an assessment of any potential impacts resultant from the 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.

This report has a maximum validity of 18 months from the date which the survey was undertaken. Beyond 18 months, it is unsuitable for use in planning and should be rejected by the Local Planning Authority.

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

The survey was undertaken by Consultant Ecologist Peter Harris BSc (hons) MCIEEM FRGS on the 27th April 2022. Weather conditions were dry with 100% cloud cover, and an ambient air temperature of 15°C.

Peter Harris is a full member of the Chartered Institute of Ecology & Environmental Management (CIEEM) and a Fellow of The Royal Geographical Society (FRGS). The surveyor is licenced by Natural England for surveying great crested newts. The surveyor is an ecologist with over 14 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 14 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.

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.

In addition, the Natural England Open Data Portal was accessed for information in respect of protected amphibian species and Great Crested Newt District Licencing Zones.

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 5km 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/permitted by the property owner. 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.

Trees

Preliminary Roosting Assessment (PRA) from ground level was made of any trees where removal is required to implement the proposal, in accordance with Bat Conservation Trust Guidelines (2016), section 6.2:

A preliminary ground level roost assessment of a tree comprises a detailed inspection of the exterior of the tree from ground level to look for features that bats could use for roosting. The aim of this survey is to determine the actual or potential presence of bats and the need for further survey and/or mitigation. As part of the inspection, trees are graded in terms of their roosting suitable (High, Moderate and Low/No potential).

Where suitable roosting habitat (moderate or high suitability) or evidence of bats is found during a preliminary ground level roost assessment then further surveys (such as further inspection surveys, presence/absence surveys or roost characterisation surveys are likely to be necessary if impacts on the roosting habitat or the bats using it are predicted.

If no or low suitability for bats are found then further surveys are not necessary. Where there is low suitability, precautionary measures may be appropriate during felling or pruning activities.

Equipment utilised comprised close focus binoculars. No intrusive methods (i.e. Torch/Endoscope) were used nor considered appropriate in the survey. A preliminary

ground level roost assessment of trees is unlikely to result in disturbance to bats unless the ecologist intends to investigate with a torch or endoscope. If disturbance to bats is a possibility, then a survey licence is required.

4. Results

4.1. Desk study Results.

Site Details

- The site is located at Central Grid Reference: TL 60590 35208
- Postcode: CB10 2XH

4.1.1. Magic-Statutory Designations

The search identified that the site is neither situated within nor bounding a statutory designated location.

The following designations are situated within a 5km radius of the site:

- West Wood Little Sampford Site of Special Scientific Interest (SSSI) – Approx. 3.1km south east of site.

Impact upon Designations

The site is not situated within nor bounding a statutory designated location. Given the small scale of the proposal relating to existing buildings, it is not considered reasonably likely that the proposal would have any adverse impact upon non-statutory designated locations.

4.1.2. Local Wildlife Sites-Non-Statutory Designations

Local Wildlife Sites (LWS) are used in the planning system to protect areas that have substantive nature conservation value at a local level. The site is not situated within, nor bounds an LWS locations. There are no such designations within a 500m radius of the site.

Impact Assessment

It is not considered likely that proposals would have any adverse impact upon non-statutory LWS locations. No further investigation is considered to be necessary nor appropriate.

4.1.3. 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 records pertinent to the site is provided below:

Great Crested Newt/Amphibian

No records available within the search radius.

A single record for common frog was identified dating from 2017, 1.7km from site.

Reptile

A single record for adder was identified dating from 2003, 1.1 km from site.

Badger

No records were identified within the search radius.

Bats

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

Species	No. Records	Date Range	Closest to Site
Western barbastelle	1x Record	2010	1.2km
C. Pipistrelle	3x Records	2008-2012	0.5km
S. Pipistrelle	2x Records	2008-2011	1.2km

Hazel Dormouse

No records were identified within the search radius.

Western Hedgehog

3 records were identified dating from between 1998-2006. The closest record was identified 0.8km from site.

4.2. Survey Results & Analysis

4.2.1 Site & Surroundings Description & Habitats

The site is situated in Lower Green, Wimbish, approximately 0.3km south west of Upper Green.

The application site is broadly rectangular, situated in an east to west delineation and is approx. 0.13ha in size.

The site is bounded by managed paddock/grazing land to the north and east. Further paddock subject to grazing by sheep is situated to the east, with agricultural buildings, hardstanding, garden and residential dwelling situated to the south.

The site is accessed via an existing hard standing driveway located in the north eastern corner of the site, leading to the road situated approximately 35m to the east.

Within the site survey boundary, the site comprises a workshop and adjoining storage building situated in the approximate centre of the site. The buildings are described and considered further in section 4.3.1. Small areas of scrub have colonised around the buildings, with a self-seeded hawthorn and goat willow situated between the buildings in the north of the site and a group of small field maple located to the south of the workshop building.

To the south of the buildings is a hardstanding (compacted gravel yard), which forms the southern section of the site. To the east and west of the buildings are hardstanding (concrete), with sections of amenity/improved grassland bounding the buildings. Short mown/sheep grazed paddock is situated to both the east and west of the buildings.

The northern boundary of the site is defined by a tree shelter belt comprising larch and pine. The western boundary of the site bounding the adjoining paddock is defined by a ditch and adjacent hedgerow comprising species including field maple, hawthorn, elm and ivy. Hardstanding and fenced sheep grazing paddock form the boundaries to the south and east respectively.

In summary, the proposed application area comprises the existing buildings and managed/grazed paddock situated within the wider context of further paddock bounding garden and residential dwelling land uses. As such, the site and surrounds are subject to management and 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).

Buildings

The buildings on site comprise a large wooden storage building (eastern building) and a brick/concrete render building (western building) currently in use as a workshop. The buildings are linked together with two single storey flat roof section, both of brick construction with render finish. Both buildings are situated in a north to south delineation.

The eastern building is effectively a large shed with sawn timber frame and ship-lap cladding. The building has a corrugated asbestos apex roof, supported upon sawn timber beams. The interior of the building is illuminated by windows situated on the eastern, western and eastern elevations and the building does not have an enclosed roof void.

The western building is used as a workshop and office. It also has a corrugated asbestos apex roof, and also has no enclosed roof void.

No evidence of bat activity was identified inside or outside either of the building. They are essentially functional, standard type construction buildings dating from WWII. Neither building presents potential structural opportunities for roosting bats, and no evidence that would suggest otherwise was identified. Consequently, the buildings are considered to present a negligible level of roosting potential. Further surveys are considered to be neither necessary nor appropriate.

Vegetation/Foraging/Commuting

No trees with a bat roosting potential above a 'Low' level (comprising self-seeded hawthorn and goat willow immediately next to the building) are situated within the proposed development area. No further surveys are advised. Standard due diligence during any future tree works is recommended.

Small numbers of bats may commute and forage across the wider site.

Impact Assessment

The buildings are considered to offer a negligible level of bat roosting potential. Further surveys are neither necessary nor appropriate in respect of the buildings.

No trees with roosting potential above a 'Low' level are situated within the proposed development area. Should any tree works/removals be required to the trees located in close proximity to the buildings, standard due diligence should be exercised during any future works, as recommended in section 5.2.

Small numbers of bats may commute and forage across the wider site. However, existing boundary tree lines to the north and west of the buildings and paddock would be retained and as such, it is reasonable to conclude that any such behaviours would continue post development. It is not considered that the proposal would have any adverse impact upon the local bat population.

Small scale, proportionate ecological enhancement recommendations for the project including low impact lighting during the demolition, construction and completed phase and use of bat boxes have been provided in section 5.2.

4.3.2. Badgers/Transitory Mammals

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

No evidence of any active or inactive setts or latrines were identified in the proposed development area, or wider areas bounding site within a 30m radius. It is possible that the species would may have a transitory presence in the wider area, along with other transitory species including deer and fox.

Impact Assessment

No active or inactive setts were found, with no evidence of badger activity identified in any location.

No further surveys are considered necessary or appropriate. However, general precautions in respect of the construction phases have been provided in section 5.2 given the possibility of transitory presence of the species and other transitory mammal species.

4.3.3. Nesting Birds

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

The buildings present limited nesting potential. No evidence of barn owl use was identified.

As general best practice guidance, 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 direct impact upon nesting birds.

In addition to retention of existing and new tree/hedgerow planting as part of the proposal, it is advised that integral and external bird boxes should be installed on to the building to enhance nesting provision and opportunities for nesting.

Enhancement recommendations to be implemented in full have been included in section 5.2.

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 site comprises the existing buildings and managed/grazed wider paddock areas, bounding further paddocks outside the application area. As such, the site is not considered to provide potentially suitable habitat and the proposal would not affect potentially suitable reptile habitat. Given surrounding land uses, the site does not have connectivity to potentially suitable habitat such that connectivity would be a reasonable likelihood.

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 negligible. 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 (European Habitat Regulations). The site is situated within a Natural England Great Crested Newt Amber Zone.

No ponds or waterbodies are situated within the proposed development area, nor would be affected by the proposal. Given the scope of the proposal relating to existing buildings, wider land grazing land use on and bounding site, the site neither contains nor is likely to form part of a wider terrestrial dispersal habitat. As such, no potentially suitable terrestrial or aquatic habitat would be lost to the proposal.

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 250m radius. The nearest ponds are situated approximately 150m to the south of the site. Given the intervening land uses (on site and beyond) it is not considered reasonably likely that there would be good ecological connectivity between the site and the pond.

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/field margins 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

Taking into account the habitats and land use note on site, bounding site and small scale of the proposal relating to existing buildings as described, presence of GCN is considered to be of reduced likelihood. Whilst the presence of GCN cannot be completely ruled out in the wider area (location of site within an amber zone) as described, the habitats noted within the application site are not considered to be notable or potentially good quality for the species and connectivity with any offsite ponds is limited. Taking these combined factors into account, it is concluded that the risk to the species is at a low level.

From the condition of the site at the time of the survey as described and taking into account the above, it is considered that presence / absence surveys of offsite ponds and / or District Level Licencing would not represent an appropriate nor proportionate response to the low level of risk. Additionally, identification of presence/absence in the nearest offsite ponds would not further inform the findings and conclusions of this report given the condition of the site and land uses as described. However, in order to reduce risk to the species to a negligible level, it is considered that the construction phase should be appropriately managed. Consequently, in order to manage the low risk to GCN, and control the construction phases, it is concluded that a Non-Licensed Method Statement should be prepared and be fully adhered to during the development phase. The methods therein would be proportionate and appropriate in the context of existing land use. Such a document should be requested by way of an appropriately worded condition upon consent, and should be a specific pre-commencement requirement, thus reducing potential risk to a negligible level.

4.3.6 Hazel Dormouse

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

The site does not have connectivity to suitable habitat nor locations where the species has been previously recorded. No potentially suitable habitat would be lost to the proposal.

Impact Assessment

It is not considered reasonably likely that the proposal would result in adverse impact upon the species. No further surveys are considered necessary or appropriate.

4.3.7 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.

4.3.8 Invertebrates/Plant life

Given the existing and surrounding land uses, the site is not considered to provide habitat for protected, priority or notable species. No further surveys are considered to be necessary or appropriate.

However, installation of new landscape planting within the future 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 enhancements are identified in section 5.2.

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 deer, rabbit, fox, hedgehog etc. The boundaries of the development area and wider site are currently relatively open and as such animals are able to forage across the site to other surrounding areas.

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

In summary, the proposed application area comprises the existing buildings and managed/grazed paddock situated within the wider context of further paddock bounding garden and residential dwelling land uses. As such, the site and surrounds are subject to management and disturbance as would be reasonably expected in such a land use context.

The designation search undertaken as part of the desk study identified that the site is not situated within nor bounding any statutory or non-statutory designated locations. It is not considered reasonably likely that the proposal would have any adverse impact upon statutory or non-statutory designated locations.

The buildings are considered to offer a negligible level of bat roosting potential. Further surveys are neither necessary nor appropriate in respect of the buildings.

No trees with roosting potential above a 'Low' level are situated within the proposed development area. Should any tree works/removals be required to the trees located in close proximity to the buildings, standard due diligence should be exercised during any future works, as recommended in section 5.2.

Small numbers of bats may commute and forage across the wider site. However, existing boundary tree lines to the north and west of the buildings and paddock would be retained and as such, it is reasonable to conclude that any such behaviours would continue post development. It is not considered that the proposal would have any adverse impact upon the local bat population.

Small scale, proportionate ecological enhancement recommendations for the project including low impact lighting during the construction and completed phase and use of bat boxes have been provided in section 5.2.

It is not considered reasonably likely reptile species would be adversely affected by the development proposals given existing land use, management and associated absence of potentially suitable habitat/connectivity to suitable habitat. Whilst no further surveys are necessary and risk to the species is considered low, a precautionary Non-Licensed Method Statement is advised in respect of great crested newt. Such a document should be requested by way of an appropriately worded condition upon consent.

No active or inactive badger setts were found, and no surveys have been advised. However, general appropriate precautionary measures for the construction phase have been advised in section 5.2.

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 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).

Construction Phase Precautions

- A precautionary Non-Licensed Method Statement is advised in respect of great crested newt. Such a document should be requested by way of an appropriately worded condition upon consent.
- To protect any radiating mammals, it is recommended that any trenches be covered over with wooden sheeting at night and fencing off the demolition/construction zone and associated compounds would be advisable during the demolition/construction phase.
- Prior to any tree works being undertaken, tree workers should be made aware of the high levels of protection afforded to bats. Should evidence of bats be suspected/identified, works should cease immediately, and an ecologist contacted to advise upon appropriate actions.

Nesting Birds

- As general guidance, the bird breeding season is from March to September. If works to 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.

Bats & Lighting

- In order to minimise risk of disturbance to potential features that may provide bat commuting and foraging habitat during the construction phase and as part of the completed development, a low impact lighting scheme is advised:
 - a) Brightness of lights should be as low as possible, and in accordance with British Standard Institute (BSI) and Bat Conservation Trust (BCT) guidance. Where possible, low pressure sodium lights are advised.
 - b) Lighting should not be directed at features that may be utilised by bats such as woodland, tree lines, hedgerows and water bodies/water courses.

- c) Directional lighting and/or fittings with hoods and cowls should be utilised.
- d) Where possible, security lighting should be motion sensitive and timers to minimise the amount of time that lights are on.
- e) Where possible, directional low impact solar bollard lighting should be used to illuminate roads, paths and parking areas.

Enhancements

- The following ecological enhancements are recommended:
 - 1x bird box per building;
 - 1x bat box per building;
 - 1x invertebrate box per building;
 - 2x tree mounted bird and bat boxes;
 - New tree and hedgerow planting as appropriate; and
 - Inclusion of native/wildlife friendly planting in landscape scheme;
- 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 2021 is 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



Storage building – southern elevation



South eastern elevation



Eastern elevation



Eastern section of site looking south



Grazing land east of buildings



Northern elevation



Storage building interior looking south



Northern elevation of workshop



Workshop building southern elevation



Western elevation



Workshop interior



Paddock in west of site



Hardstanding in south of site












Paddock to west of site

3. Annex 3 – Site Plan



KEY

-  Survey boundary
-  Scattered scrub
-  Broad-leaved tree
-  Improved grassland (grazed)
-  Species poor inland hedge
-  Dry ditch
-  Concrete / gravel hardstanding
-  Building
-  Survey building

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 02 Farrowbury Cottage Barn

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 04 NTS @A4 05 Jun 2022

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4. Annex 4 – Recommended Enhancements

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.
- Lavender *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 Rhoeas*
- Wild Thyme *Thymus Serpyllum*
- Quaking Grass *Briza 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