

Upper Farm
Ecological Impact Assessment
Atlas Planning
17 July 2023

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	Project information
File reference	DWE 0912
Document title	Upper Farm Ecological Impact Assessment
Client	Atlas Planning
Date	17 July 2023
Status	Final
Survey by	Alan Crane
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1 Introduction

1.1 BACKGROUND

1.1.1 This report presents the findings of an Ecological Impact Assessment (EcIA) for the structures and surroundings of Upper Farm, Wexcombe, Wiltshire SN8 3SQ. The site is centred on ordnance survey grid reference SU27195904 and the site location is shown in Figure 1. The desk study and survey work were carried out by Davidson-Watts Ecology Ltd on behalf of Atlas Planning.

1.1.2 The site consists of an agricultural barn and the old chapel with scrub, modified grassland and hard standing. An aerial view map with associated red line boundary has been included in Figure 2. The habitats adjacent to the site include deciduous broadleaved woodland to the west, arable and pasture to the north, south and east (including limited mature and managed hedgerows) and the farmhouse and associated buildings to the east with a small woodland copse to the east.

1.1.3 Previous ecological surveys were submitted in support of a previous planning application in October 2020 (Pro Vision Ecology Upper Farm Ecological Assessment October 2022. The surveys confirmed that day roosts for low numbers of common pipistrelle *Pipistrellus pipistrellus* were present within the chapel (Figure 3 Building 4), reptile habitat is present on site and reptiles were previously recorded in 2015 (report not available, low populations of common lizard *Zootoca vivipara* and slow worm *Anguis fragilis* recorded – data search 2023) and there is evidence of nesting birds within the buildings. Barn owl signs were recorded on site, but no evidence of nesting was recorded. Habitats present on site were considered all to be of site value.

1.1.4 The proposed development is for the conversion of the chapel and the demolition of the agricultural buildings. Plans of the proposed development have been included in Figure 4.

1.2 OBJECTIVES

1.2.1 The objectives of the report are to:

- To identify and describe all potentially significant ecological effects associated with the proposed development on ecologically important features,
- To set out the mitigation measures required to ensure compliance with nature conservation legislation and to address any potentially significant ecological effects,
- To identify how mitigation measures will/could be secured,
- To provide an assessment of the significance of any residual effects,
- To identify appropriate enhancement measures; and
- To set out the requirements for post-construction monitoring

2 Methodology

2.1 DESK STUDY

2.1.1 The purpose of the desk study is to review information available in the public domain. The following sources were checked for ecological information relating to a 1km radius around the site boundary:

- Wiltshire & Swindon Biological Record Centre (14 March 2023),
- Aerial mapping (Google Earth Pro),
- MAGIC (Multi-Agency Geographical Information for the Countryside) http://www.natureonthemap.naturalengland.org.uk; and
- NBN (National Biodiversity Network) http://www.data.nbn.org.uk.

2.2 FIELD SURVEY

2.2.1 The field survey of the site aimed to record both the habitat types present at the site as well as identify any evidence of protected and notable species (listed under Section 41 of the 2006 Natural Environment and Rural Communities (NERC) Act, Birds of Conservation Concern or locally notable species). This can be done by direct observation and through searching for field signs for each species. The survey was undertaken following 'Guidelines for Preliminary Ecological Appraisal' (CIEEM 2013).

2.3 ZONE OF INFLUENCE

2.3.1 The zone of influence has been identified as the area within the red line boundary. This has been to the north to include the broadleaved woodland adjacent to the site boundary, signs of protected or notable habitats adjacent to the site or evidence of protected or notable species were noted where possible.

2.4 HABITAT SURVEY

2.4.1 The walkover study area therefore consists of all habitats within the site boundary and the woodland offsite to the north. Attention was also given to any survey corridors that linked the site with other areas of ecological interest or value for protected and/or notable species. Non-native invasive species were recorded where present on the site. Plant species follow nomenclature from Stace (2010).

2.4.2 The field survey of the study area was conducted on the 3rd May 2023. May is considered an optimal month to survey vegetation as most plants and grasses are visible at this time. The conditions were suitable to full identify all habitats present on site.

2.4.3 The weather was sunny with clear skies and wind of approximately Beaufort Scale 2. The temperature was 6°c with no rain.

2.4.4 The dominant plant species were recorded, and habitats classified according to their vegetation types and presented in the standard Phase 1 habitat survey format. The abundance of species has been recorded with reference to the DAFOR scale:

- Dominant (D) >75%
- Abundant (A) 75 – 51%
- Frequent (F) 50 – 26%
- Occasional (O) 25 – 11%
- Rare (R) <10%

2.5 BATS

Legislation

2.5.1 In England, Scotland and Wales all bat species are fully protected under the Wildlife and Countryside Act 1981 (WCA) (as amended) through inclusion in Schedule 5. In England and Wales, this Act has been further amended by the Countryside and Rights of Way Act 2000 (CRoW).

2.5.2 All bats are also included in Schedule 2 of The Conservation of Habitats and Species Regulations 2017, as amended by the 2019 Regulations, (the Habitats Regulations), which defines 'European protected species (EPS) of animals'. These various pieces of legislation almost parallel each other, with a few small differences in wording. The legal significance of these differences has not yet been fully established and so the following account attempts to combine them to provide a simplified summary of the relevant provisions. Taken together, the Act and Regulations make it illegal to:

- intentionally or deliberately kill, injure or capture (or take) an EPS,
- deliberately disturb an EPS,
- recklessly disturb an EPS or obstruct access to breeding site or place of shelter (England & Wales only), and
- damage or destroy 'any structure or place which any EPS uses for shelter or protection.

2.5.3 Several species of bats are listed as species of principal importance under the NERC Act 2006 S41 which makes them of material importance for planning with legal obligations.

Building Preliminary Roost Assessment (PRA)

2.5.4 An internal and external search was undertaken of the site on 3rd April 2023, using binoculars to identify possible roost sites (for example, loose or missing tiles; missing mortar at gable ends; hanging tiles or wooden cladding; raised lead flashing; gaps beneath the eaves; broken windows; damaged air vents and recesses in stonework). Characteristic field signs of bats, for example accumulations of droppings or obvious scratch/wear marks were also identified where possible.

2.5.5 The exterior building search was combined with internal searches of all parts of the building (where safely accessible) to search for signs of bats, including droppings, urine staining, feeding remains (for example, large accumulations of moth wings), and individual bats. An endoscope enabled closer inspection of potentially important features.

2.5.6 The survey was undertaken by Alan Crane who is an accredited agent under Bat Class Licence registration number 2015-12209-CLS-CLS.

2.5.7 Weather conditions during the survey were a temperature of 6°C, no cloud and a wind speed of Beaufort Scale 2 with no rain.

2.5.8 An assessment of the potential of the building to support roosts was then made in line with BCT guidelines (2016) shown in Table 1 below.

Table 1: Criteria for categorising buildings for their potential to support a bat roost (taken from Collins, 2016)

Suitability	Description of building
Negligible	Negligible features likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by a larger number of bats (i.e. unlikely to be suitable for maternity or hibernation).
Moderate	A structure with one or more potential roost features that may be used by bats due to their size, shelter, protection, condition and surrounding habitat. Unlikely to support a roost of high conservation value (roost type only).
High	A structure with one or more potential roost features that are suitable for use by a large number of bats on a regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Confirmed roost	Where evidence of use by bats or the bats themselves are recorded within the structure.

Dusk emergence

2.5.9 The objectives of the bat dusk emergence surveys were to identify the presence or absence of roosting bats and where present, characterise the roost to confirm roost location, species, roost type and conditions of the roost.

2.5.10 In line with best practice guidance (Collins 2016), a schedule of dusk emergence and/or dawn re-entry surveys was followed:

- All buildings with low potential had one emergence/re-entry survey
- All buildings with moderate potential had two emergence/re-entry surveys, and
- All buildings with high potential had three emergence/re-entry surveys.

2.5.11 The surveys monitored all potential roost features as identified in the PRA. The surveys were undertaken by suitably experienced ecologists. Surveyor observation points were identified to allowed full observation of all potential roosting features of the buildings within the site boundaries. At least one of the surveys was timed within the maternity season.

2.5.12 Dusk surveys commenced 15 minutes before sunset and continued for two hours after sunset and dawn surveys commenced two hours before sunrise and continued until 15 minutes after sunrise. All dusk emergence bat surveys were conducted during appropriate weather conditions as defined within Collins (2016) and were recorded.

2.5.13 Full spectrum real time expansion bat detectors (Elekon Batlogger M) were used with sensitive microphones to maximise the call recordings during the surveys. All bat passes were noted and identified to species level where possible. Additionally, flight lines, size, flight height, speed, behaviour (e.g. foraging or commuting) and direction of flight were noted to build a picture of activity in the local area.

2.5.14 All recordings were uploaded onto Elekon BatExplorer Pro for computer analysis by an experienced ecologist.

Habitat

2.5.15 Any bat foraging and commuting activity noted during the dusk emergence surveys was recorded to build up a picture of bat activity on the site, in particular around the building and the adjacent broadleaved woodland to the west.

2.6 BADGER

2.6.1 Badgers are protected under the Protection of Badgers Act 1992. Under this Act it is an offence to:

- Wilfully kill, injure or take a badger (or attempt to do so),
- Cruelly ill-treat a badger,
- Dig for a badger,
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett,
- Cause a dog to enter a badger sett, and
- Disturb a badger when it is occupying a sett.

2.6.2 During the site walkover, a survey was undertaken to search for potential entrance holes to badger setts, well-worn paths, excavations characteristic of badger foraging, badger dung or latrines, guard hairs, footprints and scratch marks.

2.7 HEDGEHOG

2.7.1 Hedgehog are listed as a species of principal importance under S41 of the NERC Act 2006.They are therefore a material consideration for planning purposes.

2.7.2 Any records of hedgehog within 1km of the site were noted and any habitat suitable for shelter or foraging for this species were recorded.

2.8 REPTILES

Legislation

2.8.1 Reptiles are protected via part of Section 9(1) of the Wildlife & Countryside Act 1981 (as amended) against intentional killing and injuring as well as being a species of principal importance under S41 of the NERC Act 2006. They are therefore a material consideration for planning purposes with legal obligations.

Records

2.8.2 The data search returned records for common lizard and slow worm within 1km of the site.

2.8.3 Previous reptile survey carried out in August and September 2015 by Lindsay Carrington Ecological Services Ltd identified a maximum count of one common lizard and three adult slow worms on any one visit (as referenced by Pro Vision Ecology October 2020).

2.8.4 The Phase 1 Habitat Survey confirmed that the scrub habitats where reptiles had previously been recorded has now been removed and is predominantly ephemeral habitat. There were therefore no significant areas of reptile habitat that would warrant a full reptile survey.

2.9 NESTING BIRDS

Legislation

2.9.1 All birds are protected whilst actively breeding in the UK under the Wildlife and Countryside act 1981 (as amended). It is thus an offence, with certain exceptions, to:

- Intentionally kill, injure or take any wild bird.
- Intentionally take, damage or destroy the nest or eggs of any wild bird while it is in use or being built.

Records

2.9.2 Any records of birds relevant to the site from the data search have been included in this report.

Nesting bird survey

2.9.3 Habitat that could support nesting birds was recorded as well as the presence of any old or active nests or signs of nesting bird behaviour.

2.9.4 Specific attention was given to barn owl given the previous survey results that recorded barn owl presence and confirmed barn owl could be breeding within the barns.

2.10 OTHER

2.10.1 Dormouse were not considered in this report as there are no records within 1km and the habitats on site are not suitable for this species.

2.10.2 Great crested newt and other notable amphibians are not considered in this report as there are no records within 1km and no suitable breeding habitat on site or within 500m of the site boundary.

2.10.3 Records for brown hare *Lepus europaeus* have been recorded within 20mm of the site but there are no habitats present on site that could support this species.

2.11 ECOLOGICAL EVALUATION AND SIGNIFICANCE

2.11.1 Ecological features and resources have been evaluated based on the approach described in 'Guidelines for Ecological Impact Assessment in the United Kingdom' published by the Chartered Institute of Ecology and Environmental Management (2019) whereby the value of an ecological feature or resource is determined within a defined geographical context using the following criteria:

- International,
- National (England),

- Regional (South-west),
- County (or Metropolitan) (Wiltshire),
- District (or Unitary Authority, City or Borough) (Wiltshire Council),
- Local (or Parish) (Grafton),
- Site; and
- Negligible

2.11.2 Significant ecological features have been determined as those valued above site level and/or where there are legal or planning policy obligations. Criteria have been applied as identified in CIEEM (2018) to evaluate the ecological features.

2.11.3 Consideration has also been given to any invasive species on Schedule 9 of the Wildlife and Countryside Act 1981 (e.g. Japanese knotweed *Fallopia japonica*, Himalayan balsam *Impatiens glandulifera* and giant hogweed *Heracleum mantegazzianum*) and as identified as injurious in the Weeds Act 1959 (as amended by the Ragwort Control Act 2003) to include common ragwort *Senecio jacobaea*, broad-leaved dock *Rumex obtusifolius*, curled dock *Rumex crispus*, creeping thistle *Cirsium arvense* and spear thistle *Cirsium vulgare*.

2.11.4 Ecosystem services including supporting services, provisioning services and cultural services are considered where relevant as well as the presence of natural capital and opportunities for enhancement to increase habitat value where they exist.

2.12 ASSESSMENT OF IMPACTS AND SIGNIFICANCE

2.12.1 The document Biodiversity: Code of practice for planning and development published by the British Standards Institute (BS 42020:2013) cites the CIEEM Guidelines for Ecological Impact Assessment (EcIA) as the acknowledged reference on ecological impact assessment. EcIA is a process of identifying, quantifying and evaluating potential effects of development related or other proposed actions on habitats, species and ecosystems. The EcIA must provide reliable and defensible information about, and interpretation of, the likely significant ecological effects from inception to operation, maintenance and, where appropriate, closure and decommissioning.

2.12.2 The impact assessment assesses whether important ecological features will be subject to impacts (positive or negative), the characterisation of these impacts (extent, magnitude, duration, reversibility, timing and frequency) and their effects in the absence of mitigation. It is good practice for the EcIA to make clear both the potential significant effects without mitigation and the residual significant effects following mitigation.

2.12.3 An assessment is required of the significance of the residual ecological effects of the project (after mitigation) including cumulative effects. For the purpose of EcIA, 'significant effect' is an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general. Conservation objectives may be specific (e.g. for a designated site) or broad (e.g. national/local nature conservation policy) or more wide-ranging (enhancement of biodiversity). Effects can be considered significant at a wide range of scales from international to local and legal and policy consequences should be also discussed.

2.12.4 Measures should be incorporated in line with the key principles of avoidance, mitigation, compensation and enhancement to reduce and compensate negative ecological impacts and their effects. Provision should be made for ecological enhancements, monitoring impacts and their effects. Evaluation should be undertaken of the success of the proposed mitigation, compensation and enhancement measures and rectification of unexpected negative effects or ineffective mitigation.

3 Baseline Conditions

3.1 PROTECTED SITES

Statutory Sites

3.1.1 Botley Down Site of Special Scientific Interest (SSSI) is 2.1km east of the site. This site is an area of chalk downland supporting a rich flora and variety of associated butterflies. Given the distance of the SSSI from the site, the absence of green infrastructure links between the site and the SSSI, the nature of the proposed development and the localised nature of the proposed works it is not considered that there would be any negative impacts on this site as a result of the proposed development.

Non-Statutory Sites

3.1.2 The data search confirmed two non-statutory sites protected for nature conservation within 1km of the site. These are shown in Figure 5.

3.1.3 Grafton Down Local Wildlife Site (LWS) is a west facing chalk slope with unimproved grassland restricted to the lynchet that is 700m west of the site.

3.1.4 Wexcombe Down LWS is a north-facing chalk scarp with unimproved swards especially on the east and steeper slopes that is 677m south.

3.1.5 For both these sites, the land use between the site and the LWS is farmland and would form a buffer between the localised proposed scheme and the LWS. Further to this, the proposed development is for re-use of existing buildings with a single additional building. It is therefore considered unlikely that there would be any adverse construction or operational impacts on the LWS as a result of the proposed development.

3.1.6 No habitats listed under S41 of the NERC Act 2006 are shown on or adjacent to the site on MAGIC maps. Small areas of broadleaved woodland are shown 157m south and 270m north.

Wildlife Corridors

3.1.7 MAGIC and Google Earth Pro were used to identify any key wildlife corridors through or adjacent to the site. The broadleaved woodland adjacent to the site links to a further copse of woodland 157m to the south via a mature outgrown hedgerow. There are no wet drainage channels on or adjacent to the site.

3.2 HABITAT SURVEY

3.2.1 The survey results below should be read in association with the Phase 1 habitat map (Figure 6).

Semi-improved grassland




3.2.2 The dominant natural habitat on site was a short sward semi-improved grassland. The dominant grass species were cock's-foot *Dactylis glomerata*, rough meadow grass *Poa trivialis* with localised patches of perennial ryegrass *Lolium perenne* and creeping bent *Agrostis stolonifera.* Dominant forbs included broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica*, creeping thistle *Cirsiu, arvense*, cleaver *Galium aparine* and dandelion *Taraxacum* spp with frequent doves-foot cranesbill *Geranium molle*, celandine *Chelidonium* sp, ground elder *Aegopodium podagraria*, and ground ivy *Glechoma hederacea* and occasional creeping speedwell *Veronica filiformis*, white dead-nettle *Lamium album* and yarrow *Achillea millefolium* with localised cow parsley *Anthriscus sylvestris* and dog violet *Viola riviniana*. Lords and ladies *Arum maculatum* were present along the woodland boundary and the south-eastern field boundary.

3.2.3 The grassland present on site has a short sward with little structure or species diversity. Species indicative of nutrient enrichment such as nettle, dock, thistle and cleaver are present. The area of this habitat is small and isolated and would only provide seed and nectar resources for a small number of local bird or invertebrate species. No structure, isolated small areas of habitat and species poor.

3.2.4 **Habitat value: Site**

Ephemeral Herbs




3.2.5 There are several areas through the site that have been recently cleared and ephemeral herbs are starting to colonise. These are predominantly species from the adjacent grassland and tall

ruderal habitat as well as seeds that would have been present in the topsoil from the previous habitats.

3.2.6 The habitat was dominated by immature bramble, common nettle, bristly oxtongue and creeping thistle with occasional dandelion, silverweed, creeping buttercup, cleaver and ground ivy. Some sycamore regeneration is present along the northern boundary where there are stumps and along the southern boundary adjacent to the conifers.

3.2.7 This is a temporary successional habitat that is quickly replaced by grassland and tall ruderal habitat. The areas of the habitat are small, and the ground cover is sparse. The flowers may provide nectar for locally occurring invertebrates and the bare ground could provide basking sites in the summer. However, given the absence of important invertebrate records, the recent disturbance to the area and the small area of habitat, it is not considered to be important in the local context.

3.2.8 **Habitat value – site**

Tall ruderal



3.2.9 The tall ruderal habitats were dominated by common nettle with occasional bristly oxtonge *Helminthotheca echioides*, bramble *Rubus fruticosus*, ground elder, creeping thistle and broad-leaved dock. These species are indicative of localised nutrient enrichment and there are piles of grass clippings in places.

3.2.10 The areas of this habitat are small and isolated and species poor, being dominated by nettle. It is likely that in time this habitat will be succeeded with bramble scrub given the presence of immature plants of this species throughout the site. The flowers may provide localised nectar for locally common invertebrate species, but the areas of habitat are too isolated and small to support significant invertebrate populations.

3.2.11 **Habitat value: Site**

Broadleaved tree



3.2.12 One sycamore *Acer pseudoplatanus* is present on the corner of the access road on the northern boundary. No potential for roosting bats was observed or any evidence of nesting birds at the time of survey.

3.2.13 The tree is isolated, and the canopy does not link to the adjacent woodland, it appears that adjacent trees have been cleared in recent years given the regenerating stumps present along the boundary. The tree is being retained as part of the proposed development.

3.2.14 **Habitat value: Site**

Dense and scattered scrub





3.2.15 One small, isolated area of dense ivy *Hedera helix* growth was recorded on the western boundary and low patches of bramble were present along northern boundary along the bank at the base of the woodland. This habitat could support nesting birds and would provide nectar and berry resources, but it is localised and isolated in nature and species poor.

3.2.16 **Habitat value-Site**

Man-made habitats of negligible value.

3.2.17 There are large areas of hardstanding through the site that are either part of the access road or the base of the removed buildings 1 and 2. This have negligible conservation value.

3.2.18 There are several buildings along the northern boundary. These have negligible ecological value as a habitat in their own right but are discussed further in relation to protected species) bats and nesting birds) below.

3.3 HABITATS ADJACENT TO THE DEVELOPMENT FOOTPRINT

3.3.1 There is a block of broadleaved woodland immediately adjacent to western boundary. This habitat could potentially support nesting birds, bats (roosting and foraging), hedgehogs and foraging badgers. Broadleaved woodland is a habitat of principal importance under the NERC Act 2006 and provides connectivity through the wider landscape. It is therefore valued at the local level with the potential to support protected species.



3.3.2 There is a non-native coniferous hedge adjacent to south-eastern boundary of the site. This habitat is not native but has the potential to support nesting birds. It is therefore negligible with the potential to support protected species.



3.4 NON-NATIVE INVASIVE PLANT SPECIES

3.4.1 No non-native invasive plant species were recorded during the survey.

3.5 BAT SURVEY

Records

3.5.1 No bat records were returned for the site or surrounding 1km area by WSBRC.

3.5.2 There is a single European Protected Species Licence 240m south of the site for the destruction of a breeding site and destruction of a resting place of common pipistrelle from 2018.

Buildings

Preliminary Bat Roost Assessment (PRA)

3.5.3 The full bat PRA is included in Appendix B and is summarised below. The building references are retained from the previous survey report for continuity.

3.5.4 Building 3 – a block and corrugated fibre cement board construction. Potential access points included windows with missing glass, hole in the roof and walls. The building is single skin, open, light and airy. No potential roosting features were recorded either externally or internally and no bat dropping or other evidence of use by bats was recorded. It is considered that this building has **negligible** potential for roosting bats which concurs with the previous assessment.

3.5.5 Building 4a – Brick building with a clay tile roof, the SW elevation and roof pitch was missing. Potential roost features were still present underneath ridge tiles, and where tiles were lined with bitumen. Gaps were also present at the tops of the walls. A single bat dropping was found in this building during previous surveys as well as emergence of common pipistrelle from the arched and the ridge tiles (join between 4a and 4b) in May 2020. Two common pipistrelle and a non-echolocating bat emerged from under the tiles on the north side of the roof in June 2020 and one common pipistrelle emerged from the ridge tile again.

3.5.6 Building 4b - The tiles were not lined on the main section of roof with several raised and missing tiles. Mortar was missing around the bricks near the gable apex and this elevation also had an open window with missing glass and an ivy covering. Along the ridge was fresh timberwork, a modern membrane under tiles opening to the NW elevation. No evidence of use by bats was found either internally or externally.

3.5.7 Building 4a and 4b have multiple features that could support low numbers of roosting bats and the building is adjacent to well-connected woodland. Common pipistrelle day roosts were previously recorded in this building in 2020 and it is therefore a **confirmed common pipistrelle day roost** but with surveys that are over two years old and require updating.

3.5.8 Update inspections were carried out prior to each dusk emergence survey but no further evidence of use by bats was recorded.

Dusk emergence

3.5.9 As the bat survey data was over two years old, the bat surveys were repeated, Given the present of multiple common pipistrelle bats previously, three surveys were undertaken to effectively characterise the roost and include the transitional period, pre-parturition and post-parturition. The results from the dusk emergence surveys of Appendix C and are summarised below.

3.5.10 1st May 2023 Dusk Emergence – one common pipistrelle emerged from the arch at 20:47 and one common pipistrelle emerged from the ridge tile at 20:48. Calls recorded during the survey included common pipistrelle (flying around the building), two soprano pipistrelle passes, four *Myotis* passes and one serotine pass.

3.5.11 12th June 2023 Dusk Emergence – one common pipistrelle recorded in the survey included Calls recorded during the survey included common pipistrelle (flying around the building one bat only), one soprano pipistrelle pass and one serotine pass.

3.5.12 6th July 2023 Dusk Emergence – one common pipistrelle emerged from the retained beam at 21:50 and headed north. Calls recorded during the survey included common pipistrelle bats flying around the building (maximum 1 bat), three soprano pipistrelle passes and one serotine pass.

Trees

3.5.13 Only one tree was present within the red line boundary and no potential roosting features were noted in the trunk or branches of this tree.

Habitats

3.5.14 Common pipistrelle bats spent short periods foraging around the building, but the emerging bats headed towards boundary vegetation to the north and south of the site.

3.6 BADGER

Records

3.6.1 Two records for badger were returned within 1km of the site.

Habitat

3.6.2 There is no habitat present on site that could support badgers although they may forage in the grassland during damper months. However, no evidence of badger foraging or other signs were recorded during the survey and no badger setts were recorded in the adjacent woodland.

3.7 HEDGEHOG

Records

3.7.1 Two records have been provided for hedgehog (juvenile and adult) within 83m of the site from 2015.

Habitat

3.7.2 There is very limited cover on site that could support hedgehog, but the grassland may provide localised foraging habitat.

3.8 REPTILES

Records

3.8.1 Records of slow worm (maximum count three) and common lizard (maximum count 1) have been returned for Upper Farm from 2015.

Habitat

3.8.2 The majority of the bramble scrub habitat that supported reptile species previously has been cleared during the removal of buildings 1 and 2. The remaining habitats have a short sward and do not provide the cover necessary to protect reptiles. There are four areas of broken concrete and rubble that may support lone individual reptiles, but it is not considered likely that significant reptile populations are present on the site following the habitat clearance.

NESTING BIRDS

Records

3.8.3 A record for a non-breeding barn owl has been returned for Upper Farm from 2021 with two further records within the 1km search area. Records for other species of bird that could be present on site included swift *Apus apus,* brambling *Fringila montifringilla* and house martin *Delichon urbicum*.

Habitats

3.8.4 The habitats on site are mostly unsuitable for nesting birds, apart from patches of dense ivy, bramble and the buildings on the northern half of the site.

Evidence

3.8.5 20 barn owl pellets and a barn owl feather were found predominantly in the SW half of Building 3. Nearer the door, approximately 20 pellets thought to be kestrel were recorded.

3.8.6 An old swallow nest and an old pigeon nest were recorded in Building 4a, although there was no sign of active nesting at the time of survey. Barn owl pellets were recorded on the floor in this building.

3.8.7 Along the ridge of Building 4b was fresh timberwork, a modern membrane under tiles opening to the NW elevation with a large amount of white splashing on the external wall. Internally there was a barn owl box and on the ground beneath was hundreds of barn owl pellets ranging from old to very fresh. The dusk bat survey on 1st May 2023 recorded owls coming and going and hissing within the building. It is therefore considered likely that barn owls are nesting in the nest box at the ridge of the building.

Barn owl access

3.8.8 Barn owls were observed entering and exiting through the open window on the south-eastern elevation.



3.8.9 Barn owls were recorded flying around the site during the dusk emergence survey on 6th July 2023 but behaviour consistent with nesting birds was not recorded suggesting that the brood had fledged.

3.9 SURVEY CONSTRAINTS

3.9.1 All areas of the site within the red line boundary were fully accessible during the field survey. The weather conditions were suitable for undertaking the survey work. The time of year was suitable for identifying the habitats that were present and for making an assessment of the use of the building by bats and nesting birds.

4 Planning Policy

4.1 NATIONAL PLANNING POLICY

4.1.1 The National Planning Policy Framework (NPPF) (July 2021) Chapter 15 paragraphs 174 to 182 outlines out how the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity. Opportunities to incorporate biodiversity gains into a development should be encouraged including establishing coherent ecological networks that are more resilient to current and future pressures. Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure. A strategic approach should be taken to enhancing networks of habitats and green infrastructure.

4.1.2 To protect and enhance biodiversity and geodiversity, there is a requirement for plans to:

a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and

b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

4.1.3 When determining planning applications, local planning authorities will apply the following principles:

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons, and a suitable compensation strategy exists; and

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

4.1.4 The Natural Environment and Rural Communities (NERC) Act came into force on 1st Oct 2006. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions. Fifty-six habitats of principal importance and 943 species of principal importance are included on the S41 list. These are all the habitats and species in England that were identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework. Bats are listed as priority species under the NERC Act 2006.

4.1.5 The National Planning Policy Framework (NPPF) has also been strengthened to require a 'biodiversity net gain' along with the requirement for a minimum 10% net gain under the Environment Act (2021) and associated changes to the Town and Country Planning Act (1990).

4.2 LOCAL PLANNING POLICIES

4.2.1 The Wiltshire Core Strategy (adopted January 2015) Core Policy 50 Biodiversity and Geodiversity Protection states that development proposals must demonstrate how they protect features of nature conservation and geological value as part of the design rationale. There is an expectation that such features shall be retained, buffered, and managed favourably in order to maintain their ecological value, connectivity and functionality in the long-term. Where it has been demonstrated that such features cannot be retained, removal or damage shall only be acceptable in circumstances where the anticipated ecological impacts have been mitigated as far as possible and appropriate compensatory measures can be secured to ensure no net loss of the local biodiversity resource and secure the integrity of local ecological networks and provision of ecosystem services.

4.2.2 All development proposals shall incorporate appropriate measures to avoid and reduce disturbance of sensitive wildlife species and habitats throughout the lifetime of the development.

4.2.3 All development should seek opportunities to enhance biodiversity. Major development in particular must include measures to deliver biodiversity gains through opportunities to restore, enhance and create valuable habitats, ecological networks and ecosystem services. Such enhancement measures will contribute to the objectives and targets of the Biodiversity Action Plan (BAP) or River Basin/ Catchment Management Plan, particularly through landscape scale projects, and be relevant to the local landscape character.

5 Evaluation

5.1 SITES

5.1.1 No direct or indirect impacts have been identified on statutory or non-statutory nature conservation sites as a result of the proposed development.

5.2 HABITATS

5.2.1 No habitats have been identified on site that are of greater than site value.

5.2.2 Broadleaved woodland has been identified immediately adjacent to the northern site boundary that has local nature conservation value.

5.2.3 Some habitats present on site have been identified as supporting protected species and these are included in section 5.4 below.

5.3 NON-NATIVE INVASIVE PLANTS

5.3.1 No plants have been identified on site that are listed on Schedule 9 of the Wildlife and Countryside Act 1981.

5.4 PROTECTED SPECIES

Bats

5.4.1 Previous surveys (Pro Vision Ecology 2020) recorded low numbers of common pipistrelle in the chapel (Building 4).

5.4.2 The 2023 dusk emergence survey confirmed the presence of a common pipistrelle day roost (roost locations at the ridge and internally behind the arch) in Building 4a. No other emergence was recorded during the survey. Low level common pipistrelle bat foraging was recorded around Building 4, but no other activity was recorded on site with emerging bats heading north and site towards boundary vegetation.

5.4.3 Common pipistrelle bats are common and widespread. Their population has been increasing since 1999 (BCT 2023). Day roosts of this species would be valued at the **Site** level.

Hedgehog

5.4.4 There is very limited cover on site that could support hedgehog, but the grassland may provide localised foraging habitat and records have been provided in close proximity to the site. Hedgehog are listed on S41 of the NERC Act 2006 as species of principal importance and are a material consideration for planning purposes. Habitat that could support this species would be valued at the **Site** level.

Reptiles

5.4.5 Small, isolated patches of reptile habitat remain around the boundary as scrub but the main areas of habitat where common lizard and slow worm were previously recorded have been cleared, presumably during the removal of barns 1 and 2. These small areas of habitat would be valued at the **Site** level.

Nesting birds

5.4.6 Nesting barns owls have been confirmed in Building 4b using the barn owl box in the ridge.

5.4.7 An old swallow nest and an old pigeon's nest were also recorded in building 4a.

5.4.8 Habitats are present on site that could support nesting birds including buildings, broadleaved trees and scrub.

5.4.9 All bird's nests are protected while actively breeding in the UK under the Wildlife and Countryside Act 1981 (as amended). Barn owls are additionally protected under Schedule 1 of the Act which ensures that the birds, their nests, eggs and young are fully protected at all times.

6 Impact Assessment

6.1 HABITATS

6.1.1 The potential exists for damage to branches, trunks and roots of broadleaved woodland adjacent to the site to the north to occur during the construction phase. This would be a **permanent negative impact at the local level.**

6.2 BATS

6.2.1 Repair works to Building 4 would result in the loss of a common pipistrelle day roost. This would be a **permanent negative impact at the site level with legal implications.**

6.2.2 Repair works to Building 4 may result in the disturbance, killing or injury of small numbers of common pipistrelle bats when using the roosts at the time of the repair works. This would be a **temporary (disturbance) to permanent (killing) negative impact at the site level with legal implications.**

6.2.3 Post development, insensitive lighting design on retained or compensatory roosts or adjacent boundary vegetation may result in common pipistrelle bats abandoning the roost or foraging areas. This would be a **permanent negative impact at the site level with legal implications.**

6.3 HEDGEHOG

6.3.1 The proposed development has the potential to result in the loss of isolated scrub patches that could provide cover for hedgehog or small areas of foraging habitat. This would be **a permanent negative impact at the site level.**

6.4 REPTILES

6.4.1 The clearance of the site has the potential to kill or injury isolated reptiles using rubble piles or boundary scrub. This would be a **a permanent negative impact at the site level with legal implications.**

6.5 NESTING BIRDS INCLUDING BARN OWL

6.5.1 Repair of Building 4 could have the potential to damage birds' nests or cause nesting birds to abandon the nests if undertaken during the nesting season. Further to this, the works have the

potential to disturb barn owl, their nests, eggs and young. This would have a **temporary (one breeding season) negative impact at the site level with legal implications.**

7 Mitigation Recommendations

7.1 AVOIDANCE

7.1.1 Works to the building and clearance of any scrub species should take place outside the nesting bird season where possible (March to August inclusive with local species variations).

7.1.2 Appropriate fencing and signage should be installed along the northern boundary of the site in line with BS5837:2012 Trees in relation to design, demolition and construction to ensure that the broadleaved woodland is protected from damage during the construction phase. The tree root protection areas are shown in Figure 4.

7.2 MITIGATION

Bats

Licensing

7.2.1 Prior to the commencement of any demolition or conversion building works that affect known bat roosts, a Natural England bat mitigation licence will be put in place. Further surveys will be undertaken as necessary to ensure that mitigation measures are based on the most up to date survey data.

Timing

7.2.2 Where there is potential for bats to hibernate within the buildings, any works that could affect hibernating bats or their roosts would be timed to take place between March and October inclusive (with consideration to the nesting bird season). Where bats are using a shallow crevice with no potential to be used for hibernation, there will be no restrictions on proposed timings of works.

Compensatory roosts

7.2.3 Prior to the repair work for Building 4, two crevice-type woodcrete bat boxes will be placed in mature and semi-mature trees around the site boundary or on poles adjacent to mature vegetation such as the broadleaved woodland to the north of the site. These boxes will be retained for a minimum of five years following the development, and in perpetuity when used by roosting bats. The boxes will be placed at a minimum height of 3m or higher and will face south-east, south-west and north to provide a variety of thermal conditions.

Licensed Bat Mitigation Works

7.2.4 All site contractors will be made aware of the potential presence of bats, the roosting locations and potential disturbance activities through a toolbox talk and all entrance points will be confirmed to them by a bat ecologist. A summary of the relevant legislation relating to bats will be provided. A copy of this report will be kept on site throughout the works which details all mitigation measures. The contractors will be provided with details of the approach to be taken

in the unlikely event that a bat is found during the remainder of the works. A written record will be kept by the Licensee to confirm that the site contractors have received this toolbox talk.

7.2.5 Scaffolding will be placed carefully to ensure that it does not block any bat roosts or bat access points. This will need to be in place to enable the ecologist to access all known bat roosts externally. Extending platforms or MEWPs may be required to facilitate to the bat roost locations.

7.2.6 Prior to the commencement of the roof strip or removal of tiles, a licensed bat ecologist should check the internal roof void and any bats found would be moved to the pre-installed bat boxes.

7.2.7 A licensed ecologist will the directly supervise the removal of the tiles in the vicinity of the known roosts. An endoscope and hand torch may be required to compete checks of areas where cavities are present and where bats cannot be safely removed by hand, an exclusion device should be fitting and left in place for 5 consecutive suitable weather nights before the roost is closed.

7.2.8 Once the bat roosts have been destroyed under the supervision of a licensed ecologist, the works can continue to completion once the licensed ecologist has declared the roof to be free from bats.

7.2.9 Should it be necessary to use any wood timber treatments, only approved treatments may be used. Guidance on their use in the 'Bat Workers Manual', Chapter 10 must be followed.

7.2.10 No breathable roofing membranes should be used in any new roof voids or adjacent to any new external roost provisions for bats.

7.2.11 No external up-lighting is proposed within the gardens to the south of the dwelling; and any external lighting on the building or within the parking area to the north will be shielded with appropriate cowls and deflectors, will be dark skies and wildlife friendly, and will be specified and positioned in accordance with the AONB's published guidance.

Enhancement

7.2.12 Two ridge access bat tiles such as https://www.tudorrooftiles.co.uk/bat.html should be placed in the ridge of Building 4 on the south-west elevation to replace the lost crevice roosts for Building 4. With the two crevice bat boxes, this will result in a net gain of roosting opportunities for bats at the site.

Reptiles

7.2.13 Small numbers of reptiles may be present within the isolated patches of scrub and rubble piles on site. The rubble piles have the potential to be used by hibernating reptiles.

7.2.14 In line with previous recommendations, a two-stage reduction of vegetation should be undertaken between April and October with an initial cut to 20cm above the ground, and subsequent clearance at ground level, to allow any reptiles that are present to escape. The removal of vegetation to ground level should be undertaken when the temperature is above 10ºC and avoid periods of heavy rain. The clearance will be undertaken towards boundary to encourage reptiles to naturally move to this area.

Nesting birds

Avoidance

7.2.15 Building repair work to Building 4 must avoid the nesting bird season to avoid disturbance to nesting barn owl, their nests or young.

Mitigation

7.2.16 It is advised that all buildings are inspected by an ecologist for evidence of nesting birds prior to demolition as pigeon and barn owl can have extended nesting seasons. Where active birds' nests are confirmed, works should be postponed until the young birds have fledged with a suitable working buffer.

7.2.17 Where vegetation suitable for nesting birds is removed during the breeding season, a nesting bird survey should be carried out by a suitably experienced ecologist.

Compensation

7.2.18 Two additional bird nest boxes will be positioned on site on suitable buildings or trees.

7.2.19 The barn owl box will be removed from Building 4 during the winter months to ensure that it cannot be used during the following season. A barn owl box will be installed on site prior to the demolition of the buildings. This will be installed at least 30 days before works to the buildings begin and at least a month prior to the next nesting bird season.

7.2.20 In line with the previous recommendations, two swallow nest cups will be positioned within the open car port. A minimum distance of one metre between nest cups is recommended. To ensure the swallows have sufficient room in the nest cup and when arriving and leaving there should be at least 6cm free space above the nest cup. Continuous access to the nest cups will be provided through the open access of the car port section of the garage.

7.3 ENHANCEMENT

7.3.1 In accordance with the provision of Chapter 11 of the National Planning Policy Framework (Conserving and Enhancing the Natural Environment) and Local Planning Policy, every effort should be made to enhance the biodiversity value of the site.

7.3.2 The details of the proposed ecological enhancements are shown on Figure 4 and detailed below:

- 2313 sqm of wildflower meadow which will benefit local invertebrate and reptile species and foraging habitat for hedgehog,
- 575 sqm flowering lawn using Emorsgate EL1 flowering mix. Mixture EL1 contains slow growing grasses with a selection of wildflowers that respond well to regular short mowing which will benefit local nectar-feeding invertebrates and foraging habitat for local birds as well as foraging habitat for hedgehog.
- A sedum mix green roof to be provided on the roof of the new dwelling which will provide cover for local invertebrate species and foraging habitat for local birds.
- 246m of native boundary hedgerow is proposed using the following native species – *Acer campestre* 25%, *Cornus sanguinea* 3%, *Corylus avellana* 25%, *Crataegus monogyna* 25%, *Euonymus europaeus* 3%, *Ilex aquifolium* 3%, *Ligustrum vulgare* 3%, *Prunus spinosa* 5%,

Rosa arvensis 3% and *Viburnum lantana* 5% which will provide nesting bird habitat and provision of nectar, berries and nuts for local invertebrates, birds and small mammals as well as foraging habitat for bats and shelter for hedgehogs.

- 7 native specimen trees within the red line boundary to include pear, field maple and beech and a further three native field maple trees within the blue line which will provide nectar and mast resources for local invertebrates, birds and small mammals, nesting habitats for local birds and sheltered foraging habitat for bats.
- 12 apple *Malus domesticus* orchard trees which will be Wiltshire appropriate fruit trees which will provide nectar and fruit resources for local invertebrate and bird species and sheltered foraging habitat for bats.

7.4 LIFESPAN OF SURVEYS

7.4.1 Where the survey data is 18 months or older, it is likely that update surveys and reporting will be required for planning for EPSL licensing purposes as bats are highly mobile species (CIEEM 2019).

8 References

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Figure 1 Site Location Plan



Figure 2 Aerial Map with Red Line Boundary



Figure 3 Building Locations

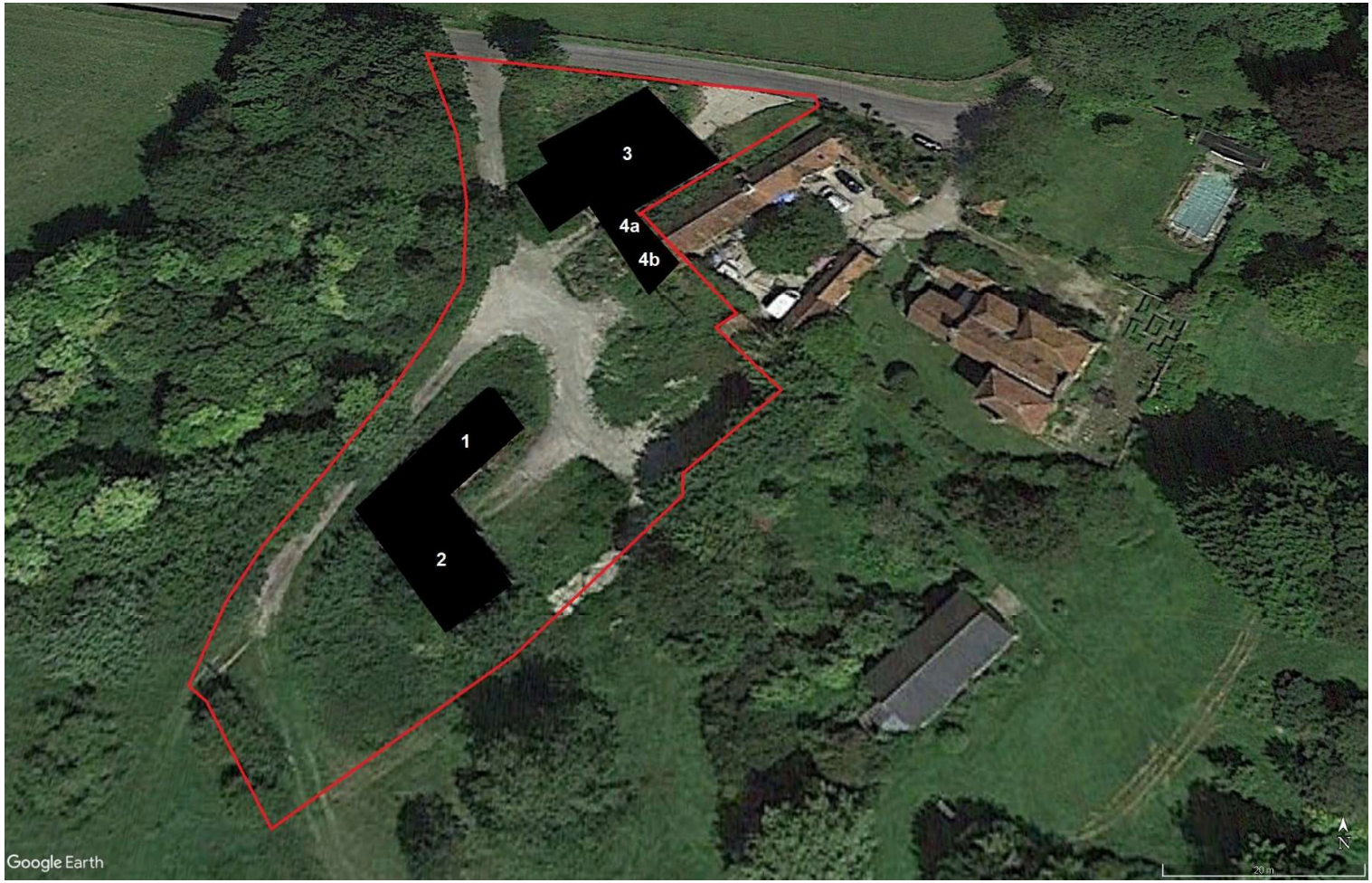
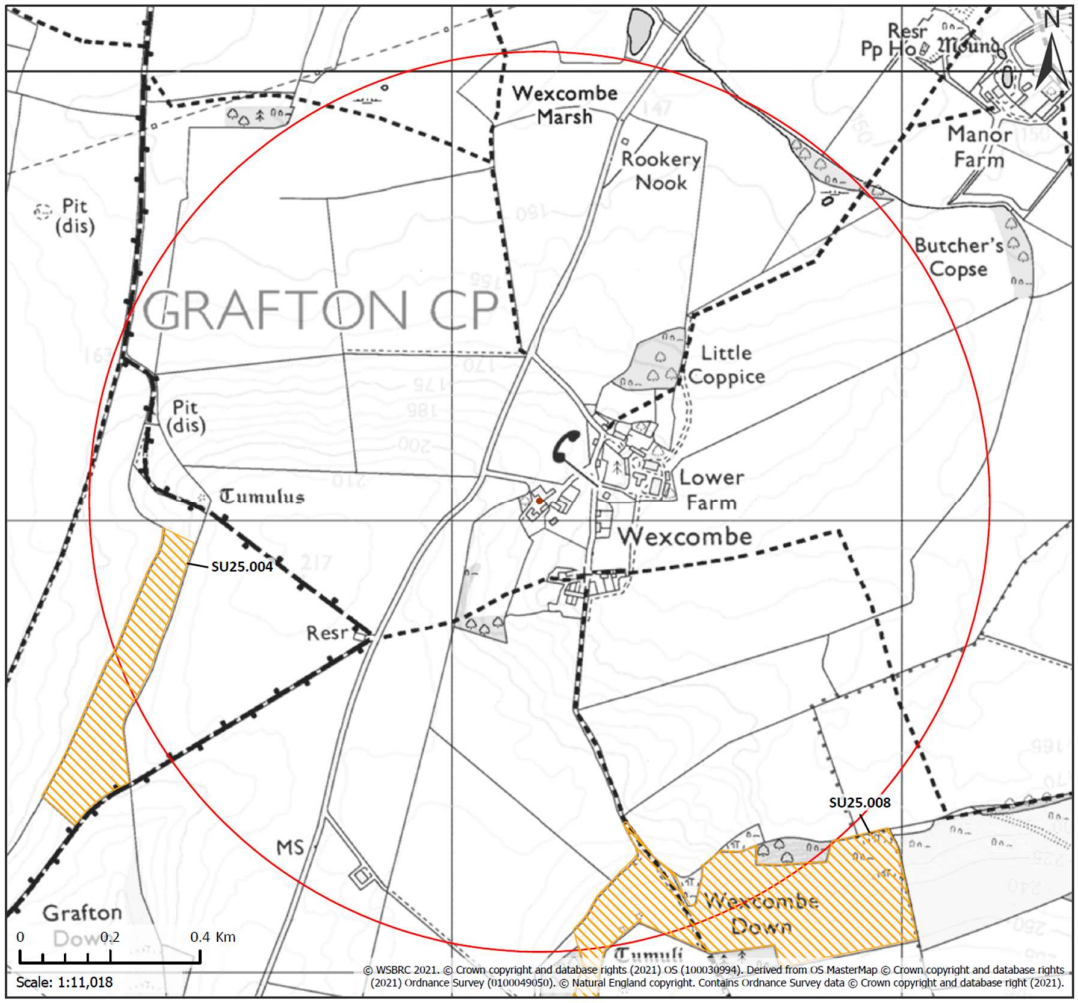


Figure 4 Proposed Development



Figure 5 Non-statutory Sites within 1km



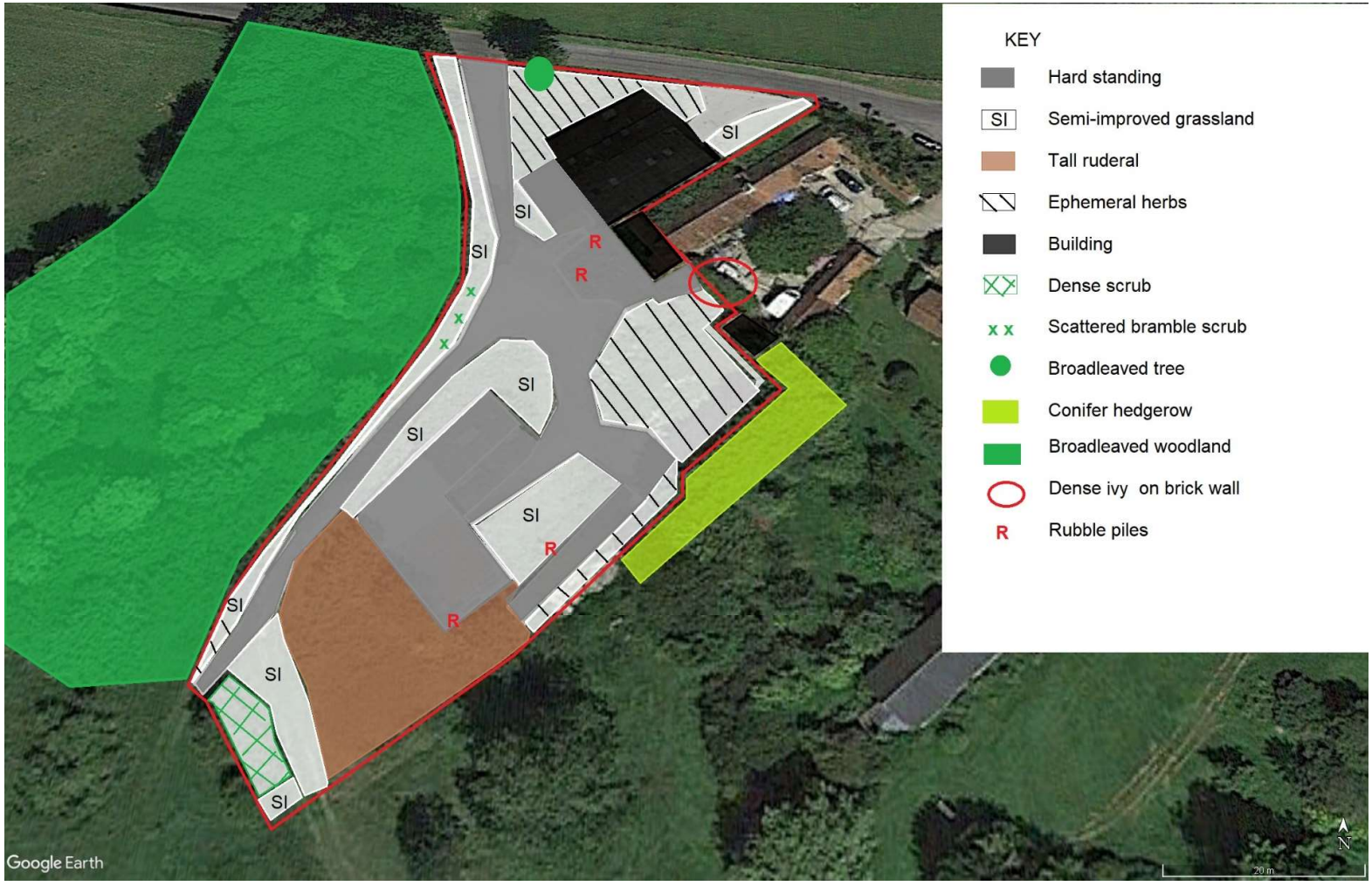
WSBRC Wiltshire & Swindon Biological Records Centre

Wildlife Sites within 1km of Upper Farm, Wexcombe: SU27195904

14/03/2023

- Wiltshire Wildlife Trust Reserve
- Site of Special Scientific Interest
- National Nature Reserve
- Special Area of Conservation
- Special Protection Area
- Local Nature Reserve
- Local Wildlife Sites
- Local Geological Site
- Protected Road Verge
- Woodland Trust Reserve (boundary information only)
- Bat Consultation Zone

Figure 6 Phase 1 Habitat Map



Appendix A Bat Preliminary Roost Assessment

The site consisted of two buildings. In a previous report these were referred to as Building 3 and Building 4a and 4b. Two other buildings that were present at the time of the previous report, Buildings 1 and 2 have been removed and are no longer present on site.

Building 3
This was of block and corrugated fibre cement type board construction, with a corrugated fibre cement type board roof. The front of the building (SW aspect) had some wall panels missing, giving direct access into the barn.




The right (SE elevation) was mostly inaccessible. What looked like a gap running along the roof at around half height was a step, with no gap.



The left side (NW elevation) had lower walls due to the height of the ground on that side. They were blocked to gutter height. There were windows with missing glass and a hole in the roof (highlighted red below) all of which gave direct access to the inside of the barn.






The rear (NE elevation) had a hole in the wall and gaps along the wall tops down both sides of the apex (the later not visible from outside).







The interior was very bright due to many clear skylights in the roof. The barn had a metal frame and a concrete floor. The roof was single skin corrugated metal sitting directly on metal frames.





On the SE side there was a window with no glass.



A search revealed no signs of bats.

Around 20 barn owl pellets were present in the barn, and a barn owl feather was found. These were mainly in the SW half of the building.







Near the door at the SW, around 10 smaller pellets were found which could be kestrel. A kestrel was noted flying over the site, and also hovering over an adjacent field.



Building 4a and 4b
The second building is divided into 2 distinct parts (previously referred to as Building 4a and b). It was constructed of brick with a clay tile roof. The larger part, to the left of the building as a whole, was missing the front wall and front pitch of the roof (SW aspect).



The ridge tiles were still present (highlighted red above), which had gaps underneath where a bat could potentially roost.



Also highlighted red was an area of roof leading towards the rear, where this building joined to another off site.



Here the roof had a bitumen liner under the tiles. This was torn, revealing the underside of the tiles.



At the wall tops there were gaps that bats could potentially use.



In this part of the building an old swallow nest and an old pigeon's nest was found





Barn owl pellets were found on the floor in this building.



The main section of roof had no liner, the timber battens were visible below the tiles.



The rear of this section of roof was visible through the missing window of the barn.
Highlighted red below are a gap under a ridge tile and a raised tile. There were many raised tiles.







The right hand half of the building was intact. The roof at the front (SW elevation) had some gaps at the tiles, highlighted below.



Gap under ridge tile.



Raised tile



Raised tile.



The right side had missing mortar around bricks near the apex of the gable, a gap just below the verge and a window with no glass, all highlighted red below.



Missing mortar.



Gap just below verge



Open window.



The left side (NW elevation) was blocked up, preventing access to for an internal inspection. There was a gap left at the top of the wall that it was possible to see using a ladder.



Gap at top of wall, with bird droppings.



Inside the roof had fresh looking timberwork and a modern membrane under the tiles. A barn owl box was present.



The building was open from floor to roof height with no internal floors.



Hundreds of barn owl pellets were visible on the floor, ranging from very old to very fresh.



No signs of bats was seen either inside or out of this building.

Appendix B Bat Dusk Emergence Survey

1st May 2023 Dusk Emergence

Survey conditions:

Sunset – 20.28
Start time – 20.13
End time – 21.58
Start temp - 14°C
End temp - 12°C
Cloud cover – 10%
Wind – BF scale 2
Rain - 0

Pre survey inspection
An external pre survey inspection of the building found no evidence of bats.

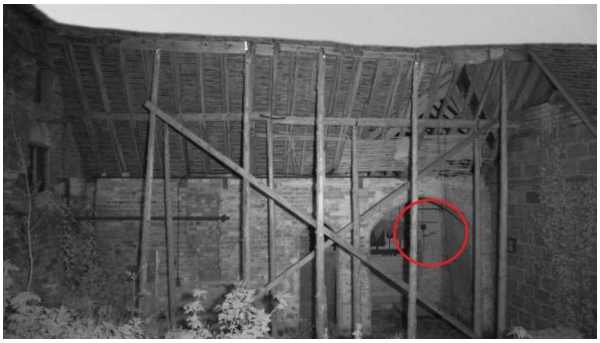
Dusk Emergence survey
The surveyor covered the old building without a roof using a Canon XF200 camera with Secureview VSIR28W120D infrared floodlight. This was used in conjunction with an Elekon Batlogger M.

View from Canon XF200



2 bats were seen to emerge –
1 at 20.47 from the arch, and 1 at 20.48 from near the top of the centre upright timber. Locations are shown below.

Bat out at 20.47



Bat out at 20.48 (shows as slight dark blur just right of timber)



Call analysis confirmed both *Pipistrellus pipistrellus.*

A total of 148 bat passes were recorded on the Batlogger M.
Analysis of calls shows –
Pip. pip. – 141 (20.41 to 21.29)
Pip. pyg – 2 (20.54 & 20.55)
Myotis spp – 4 (20.54 & 20.57)
Serotine – 1 (20.49)

Pip pips were seen flying around the buildings constantly until 21.29, maximum 2 bats seen at any one time.

A Sony HDR-XR520 camera with Secureview VSIR28W120D infrared floodlight covered the tiled part of the building SW and SE). This was used in conjunction with a Batbox Baton.

View from Sony HDR XR520



Review of the footage does not show any bats emerging from this part of the building.

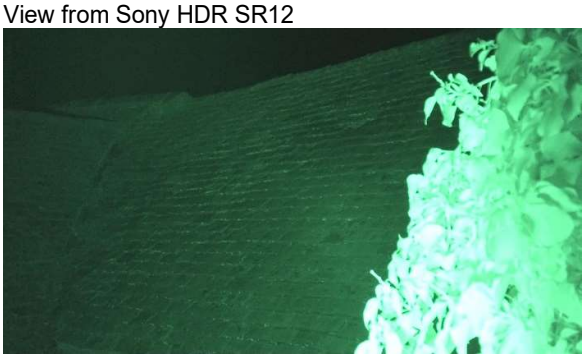
Barn owls were seen going in and out of this part of the building.

Barn owl.



A Sony HDR-SR12 camera with Secureview VSIR28W60D infrared floodlight covered the reverse side pitch (NE) of the collapsing roof, from within the adjacent metal barn.
Review of the footage does not show any bats emerging from this part of the building.

View from Sony HDR SR12



All video footage was reviewed using Cyberlink Power Director software. This enables full screen, frame by frame playback.

12th June 2023 Dusk Emergence

Weather conditions at time of survey –
Sunset – 21.23
Start time – 21.08
End time – 22.53
Start temp - 20°C
End temp - 17°C
Cloud cover – 0%
Wind – BF scale 2
Rain - 0

Pre survey inspection
An external pre survey inspection of the building found no new evidence of use by bats.

Emergence survey
The surveyor covered the old building without a roof using a Canon XF200 camera with Secureview VSIR28W120D infrared floodlight. This was used in conjunction with an Elekon Batlogger M.

View from Canon XF200



1 common pipistrelle bat was seen to emerge at 20.50 from the ridge tiles. Emergence location is shown below. The dark shape in the centre of the red circle is the bat.



A total of 30 bat passes were recorded on the Batlogger M.
Analysis of calls shows –
Pip. pip. – 27 (21.50 to 22.28 and 22.34 to 22.36)
Pip. pyg – 1 (241.48)
Serotine – 2 (22.32)

Pip pips were seen occasionally flying around the building, max 1 bat seen at any one time.

A Sony HDR-SR12 camera with Secureview VSIR28W120D infrared floodlight covered the tiled part of the building. This was used in conjunction with a Batbox Baton.

View from Sony HDR SR12



Review of the footage does not show any bats emerging from this part of the building.

All video footage was reviewed using Cyberlink Power Director software. This enables full screen, frame by frame playback.

A barn owl was seen hunting over adjacent fields. None were seen to enter the building.

6th July 2023 Dusk Emergence

Weather conditions

Sunset – 21.23
Start time – 21.08
End time – 22.53
Start temp - 15°C
End temp - 13°C
Cloud cover – 10%
Wind – BF scale 3
Rain - 0

Pre survey inspection
An external pre survey inspection of the building found no new evidence of bats.

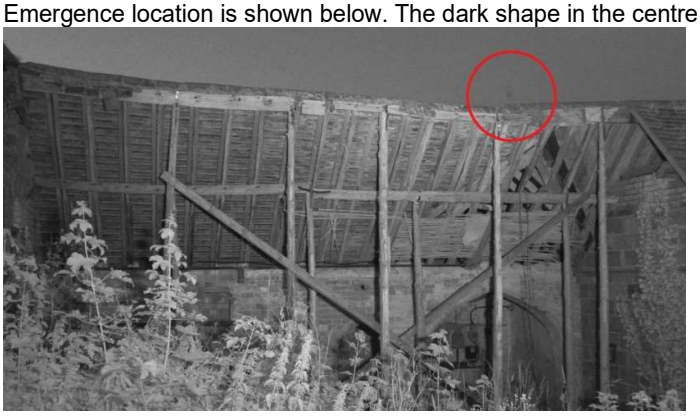
Emergence survey
I covered the old building without a roof using a Canon XF200 camera with Secureview VSIR28W120D infrared floodlight. This was used in conjunction with an Elekon Batlogger M.

View from Canon XF200



1 common pipistrelle was seen to emerge at 21.50 from either the far side of the ridge tiles or the short ridge that runs away from the camera view.

Emergence location is shown below. The dark shape in the centre of the red circle is the bat.



A total of 30 bat passes were recorded on the Batlogger M.
Analysis of calls shows –
Pip. pip. – 26 (21.44 to 22.09)
Pip. pyg – 3 (22.44)
Serotine – 1 (21.58)

Pip pips were seen occasionally flying around the building, max 1 bat seen at any one time.

A Sony HDR-SR12 camera with Secureview VSIR28W120D infrared floodlight covered the tiled part of the building. This was used in conjunction with a Batbox Baton.

View from Sony HDR SR12



Review of the footage does not show any bats emerging from this part of the building.

All video footage was reviewed using Cyberlink Power Director software. This enables full screen, frame by frame playback.

3 barn owls were seen on and around site. 1 was seen to enter the building.