

WHARTON

Natural
Infrastructure
Consultants

Preliminary Ecological Appraisal

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Swalcliffe Farm, Swalcliffe

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Preliminary Ecological Assessment

VERSION: V1 DATE: October 2018
REF NO: 181030 0722 PEAR V1



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Summary	
Site surveyed	Swalcliffe Farm, Swalcliffe National Grid reference SP 37215 37037
Purpose and brief	Preliminary Ecological Appraisal Commissioned by Sheldon Bosley Knight
Development proposals	Construction of an equine vet building, with associated parking and bitumen / gravel pathways
Methods	Desk study Extended Phase 1 habitat survey of the Site Assessment of likely significant effects
Confirmed ecologist constraints	None
Potential ecological constraints	Brown hairstreak butterfly Nesting birds
Recommendations for further surveys/works	Precautionary measure of timing of vegetation removal outside the bird nesting season or check of vegetation by a suitably qualified ecologist immediately prior to removal if carried out during nesting season. Hedgerow removal should take place in January or February to minimise impacts to brown hairstreak.
Opportunities for ecological enhancement	Inclusion of two Swift Nest Bricks within the proposed Development. Inclusion of a blackthorn hedgerow for habitat for brown hairstreak butterfly. The Proposed Development should include an Integrated Bat Tube or an external Greenwood Ecostycrete bat box.



1. Introduction/Background

1.1 Author

- 1.1.1 The principal author of this report is Eleanor Delaney BSc (Hons), MSc (Ecologist). The principle author has three years of professional experience in ecological consultancy and has worked on projects ranging in scale, including commercial and residential sites, throughout the UK. The principal author currently holds a Class 1 licence from Natural England for great crested newts (*Triturus cristatus*) and bats (*Chiroptera* spp.). A CV may be provided on request.
- 1.1.2 The detail provided within this report is a true and accurate reflection of both the Site conditions at the time of survey, as well as the professional opinion of the principal author.

1.2 Purpose and Brief

- 1.2.1 Sheldon Bosley Knight commissioned Wharton Natural Infrastructure Consultants Ltd to undertake a Preliminary Ecological Appraisal ('PEA') of an area of land at Swalcliffe Farm, Swalcliffe, Oxfordshire (see land within the red line boundary on Appendices 1 and 2), known herein as 'the Site'.
- 1.2.2 The purpose of the PEA (as per CIEEM guidance (CIEEM, 2017)) is to inform part of a full planning application, the key objectives of a PEA are to:
- Identify the likely ecological constraints associated with a project
 - Identify any mitigation measures likely to be required, following the '*Mitigation Hierarchy*'
 - Identify any additional surveys that may be required to inform an Ecological Impact Assessment (EclA)
 - Identify the opportunities offered by a project to deliver ecological enhancement
- 1.2.3 Whilst PEA reports are not usually sufficient for planning, in circumstances where no further survey effort are required and mitigation is simple and straightforward, a PEA report may be suitable. In this instance, the Proposed Development fulfils these criteria and the PEA report is sufficient to accompany the planning application.

1.3 Description of Site and Local Area

- 1.3.1 The Site currently supports heavily grazed grassland, a Farriers building and a hardstanding carpark, which is c.0.3ha in area; centred approximately at OS National Grid Reference SP 37215 37037.
- 1.3.2 The Site is bordered to the north and west by paddocks; to the east by the farriers building and to the south by Grange Lane and Swalcliffe Farm buildings. The wider landscape is a mixture of arable and grazing land, with small patches of woodland and isolated buildings. The River Stour is also present c.870m south of the Site, though this is not well ecologically connected to the Site.



1.4 Development Proposals

1.4.1 The Proposed Development is to construct an equine vet building, with associated parking and bitumen / gravel pathways; to be situated on the field in the west of the Site.

2. Relevant Planning Policy & Legislation

2.1 Relevant Legislation

2.1.1 National and international legislation relevant to the Proposed Development is summarised below in Table 1.

Table 1. Legislation Relevant to the Proposed Development

Legislation*	Relevance to the Proposed Development
The Conservation of Habitats and Species Regulations 2017 (HMSO, 2017)	Afford protection to certain species and habitats listed on the relevant schedules
The Wildlife and Countryside Act 1981 (as amended) (HMSO, 1981)	
The Natural Environment and Rural Communities (NERC) Act 2006 (HMSO, 2006)	Places a duty on planning authorities to consider priority habitats and species in planning applications.

*Full legislative text should be referred to as table text is a summary only

2.2 Relevant Planning Policy

2.2.1 Planning policies which are relevant to the proposed development are summarised below in Table 2.

Table 2. Planning Policy Relevant to the Proposed Development

Planning Policy	Relevance to the Proposed Development
National Planning Policy Framework (Department for Communities and Local Government, 2018)	<p>National Planning Policy Framework section 170 states that planning policies and decisions should contribute to and enhance the natural end local environment by minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressure.</p> <p>Section 174 of the NPPF states that in order to protect biodiversity, plans should 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.</p> <p>Section 175 of the NPPF states "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".</p>

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<p>Cherwell District Council Cherwell Local Plan 2011 – 2031 (Cherwell District Council, 2015)</p>	<p>Policy ESD 10: Protection and Enhancement of Biodiversity and the Natural Environment states:</p> <p><i>"In proposals for development, a net gain in biodiversity will be sought by protecting, managing, enhancing and extending existing resources and creating new resources.</i></p> <p><i>Development which would result in damage to or loss of a site of biodiversity or geological value of regional or local importance including habitats of species of principal importance for biodiversity will not be permitted unless the benefits of the development clearly outweigh the harm it would cause to the site, and the loss can be mitigated to achieve a net gain in biodiversity/geodiversity.</i></p> <p><i>Development proposals will be expected to incorporate features to encourage biodiversity and retain and where possible enhance existing features of nature conservation value within the site. Existing ecological networks should be identified and maintained to avoid habitat fragmentation, and ecological corridors should form an essential component of green infrastructure provision in association with new development to ensure habitat connectivity."</i></p>
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*Full policy text should be referred to as table text is a summary only



3. Methods & Methodology

3.1 Desk Study & Consultation

3.1.1 A desk study was carried out to gather background ecological data. Records were obtained from the central grid reference provided in paragraph **Error! Reference source not found.** at the following distances:

- 5km for statutory wildlife sites
- 1km for non-statutory wildlife sites
- 1km for legally protected and notable species (due to the brook corridor south of the Site)

3.1.2 The following resources were used for the data search:

- Multi Agency Geographic Information for the Countryside (MAGIC) Interactive (DEFRA, 2018)
- Biological Records from Thames Valley Environmental Records Centre (TVERC, 2018)

3.2 Field Survey

3.2.1 The field survey (comprising the methods detailed below) was carried out on 3rd October 2018 by the Principal Author. Weather conditions at the time of survey were sunny and dry. No weather conditions acted as a limitation to the survey.

3.3 Extended Phase 1 Habitat Survey

3.3.1 An Extended Phase 1 Habitat Survey was carried out at the Site, this is an extension of the basic survey methodology (JNCC, 2010) and provides further details in relation to the presence of notable or protected habitats and evidence of/suitability for protected/notable species, specifically:

- Badger (*Meles meles*)
- Bats (Chiroptera spp.)
- Great crested newt (*Triturus cristatus*)
- Hedgehog (*Erinaceus europaeus*)
- Invertebrates
- Hazel dormouse (*Muscardinus avellanarius*)
- Reptiles
- Otter (*Lutra lutra*)
- Water vole (*Arvicola amphibius*)
- White clawed crayfish (*Austroptamobius pallipes*)
- Wild birds
- Protected plants

3.3.2 The records from the local biological records centre were reviewed for information on other species/groups not specifically listed above.

3.3.3 Habitats at the Site were identified and mapped; they are illustrated on the Extended Phase 1



Habitat Plan in Appendix 2. Where appropriate, target notes have been used to identify areas on the plan that require further detail, and this has been provided in the report.

- 3.3.4 Plant names (common and scientific) within this report follow 'New Flora of the British Isles' (Stace, 2010).

3.4 Preliminary Roost Assessment ('PRA')

- 3.4.1 The PRA and subsequent assessment of suitability of the building and trees at the Site for roosting bats followed current best practice guidance (Collins, 2016) and was undertaken by a Class 1 bat licensed ecologist.
- 3.4.2 The building at the Site was inspected for field evidence of bats including: droppings, individual bats (live or dead), feeding remains, scratch marks, urine staining, grease marks and clean cobweb-free gaps around potential entrance points and crevice roost sites. Trees were inspected at ground level only and with binoculars where required.
- 3.4.3 Trees and building at the Site were classified according to the criteria set out in 0 below in accordance with standard guidance (Collins, 2016). With respect to roost type, the assessments in this report are made irrespective of species conservation status, which is established after presence is confirmed.

Table 3. Bat Roost Suitability Descriptions (taken from Collins, 2016)

Suitability	Description of Roosting Habitats
Confirmed Presence	Presence of roosting bats within the structure/tree confirmed by the survey
High	A structure/tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Moderate	A structure/tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
Low	A structure/tree 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).
Negligible	Structures/trees that appear unsuitable for roosting bats due to a clear lack of roosting spaces such as voids, small crevices etc. and/or absence of suitable access points such as lifted tiles, gaps in soffits, cracked limbs etc.



3.5 Limitations and Caveats

- 3.5.1 The residential dwelling and office space of the Farriers building were not accessed for an internal bat roost inspection due to lack of access. However, as this building is to be retained within the Proposed Development, no further surveys are deemed necessary.

3.6 Evaluation of Ecological Features

- 3.6.1 The potential of the Site to support legally protected or notable species was determined through a review of field observations and desk study information.
- 3.6.2 The likelihood of the occurrence of any protected and/or invasive species is ranked as follows and relies on habitat suitability for the species at the Site as well as an evaluation, in parallel, of desk study data and published guidance/literature which is referenced accordingly:

- **Negligible** – while presence cannot be absolutely discounted, the Site supports very limited or poor-quality habitat for a species or species group. There may be no local records of the species/species group from the data search, and the surrounding habitats are considered unlikely to support wider populations of a species/species group. The Site may also be outside or peripheral to the known natural range of a species/species group;
- **Low** – habitats within the Site are of poor to moderate quality for a given species/species group. There are few or no returns from the data search, but presence cannot be discounted based on the national distribution of the species/species group, the nature of surrounding habitats, habitat fragmentation or recent on-site disturbance, etc.
- **Medium** – habitats within the Site are of moderate quality providing some opportunities for a given species/species group. The desk study reveals historic local occurrence of the species/species group and the Site is within the national distribution and with suitable surrounding habitat. Factors limiting the likelihood of occurrence may include small habitat area, habitat isolation, and/or disturbance
- **High** – habitats within the Site are of high quality for a given species/species group. The desk study provides evidence of local occurrence. The Site may be within/peripheral to a national or regional stronghold and/or has good quality surrounding habitat and good connectivity
- **Confirmed Presence** - presence confirmed from the most recent site survey or by recent, confirmed records.

- 3.6.3 The CIEEM EcIA guidelines (CIEEM, 2018) state that “the importance of an ecological feature should be considered within a defined geographical context. It is recommended that the following frame of reference be used, or adapted to suit local circumstances:

- International and European;
- National
- Regional
- Metropolitan, County, vice-county or local authority-wide area
- Local”



4. Ecological Baseline

4.1 Statutory and Non-Statutory Wildlife Sites

Statutory Wildlife Sites

- 4.1.1 No statutory wildlife sites are present within 1km of the Site.
- 4.1.2 Sharp's Hill Quarry Site of Special Scientific Interest (SSSI) is located 3.6km west of the Site. The SSSI is designated for its geology and the Site is outside of the SSSI Impact Risk Zone. Therefore, the Proposed Development does not conflict with this SSSI.
- 4.1.3 Hook Norton Cutting and Banks SSSI is located 4.9km south of the Site. The SSSI was designated for its varied habitats, including; calcareous grassland flora which supports rare and uncommon bee and butterfly species, unimproved species-rich grasslands, a railway track, which supports a wide range of bird species, reptiles and badgers (*Meles meles*). The Site is located within Hook Norton Cutting and Banks SSSI Impact Risk Zone, however this planning proposal does not conflict with impact assessment guidance presented by Magic (DEFRA, 2018).
- 4.1.4 No significant impacts are likely to arise on statutory wildlife sites as a result of the Proposed Development, and no further survey effort in respect of statutory wildlife sites is considered necessary.

Non-Statutory Wildlife Sites

- 4.1.5 One non-statutory wildlife site is present within 1km of the Site. Swere Valley and Upper Stour Conservation Target Area (CTA) is located c.900m south of the Site. CTAs are landscape scale areas identified as supporting high concentrations of UKBAP habitats and species populations, with the potential to restore habitats at a landscape scale.
- 4.1.6 Due to the small construction footprint of the Proposed Development, and its confinement to a small area of arable land, adverse effects upon designated sites as a result of the Proposed Development are unlikely.

4.2 Habitats

- 4.2.1 A plan of the habitats detailed below is provided at Appendix 2.

Buildings and Hardstanding

- 4.2.2 The Farriers building is present in the southern corner of the Site and has been divided up into a mixture of stables, a forge, an office space and a small residential dwelling. This building is unaffected by the Proposed Development.
- 4.2.3 A storage container is present in the south of the Site, which is to be removed as part of the Proposed Development.
- 4.2.4 Hardstanding is present surrounding the Farriers building and a carpark along the southeast extent of the Site. Park Lane runs along the east boundary of the Site and Grange Lane runs along the southern boundary.

Improved Grassland

- 4.2.5 Field F1 in the north of the Site supports improved grassland which is dominated by a limited range of species such as perennial rye grass (*Lolium perenne*), dandelion (*Taraxacum officinale* agg.), greater plantain (*Plantago major*) and ribwort plantain (*Plantago lanceolata*). Shepherd's purse (*Capsella bursa-pastoris*) was also occasionally present within the sward.
- 4.2.6 The grassland had clearly been subject to significant nutrient enrichment historically due to the vigorous growth of perennial rye grass. Horse grazing was evident within the field and the



grassland is used for this purpose on a yearly basis; this was evident from poached areas within the grassland.

- 4.2.7 The ecological importance of the improved grassland is below the local level.

Other Habitats

- 4.2.8 Field F2 (see appendix 2, TN1) comprises the western section of the Site and has previously supported improved grassland which is clear from the patches of improved grassland at the peripheries, however the majority of the field appears to have been treated with herbicide and the vegetation is now dead, leaving large areas of bare ground with dead vegetation.
- 4.2.9 Species present around the peripheries include perennial rye grass, broad-leaved dock (*Rumex obtusifolius*), shepherd's purse and ground ivy (*Glechoma hederacea*).
- 4.2.10 The ecological importance of this habitat is below the local level.

Ruderal Vegetation and Road Verges

- 4.2.11 A small area of ruderal vegetation is present surrounding the storage container, which is connected to the mown verge side of Grange Lane. The ruderal area is dominated by perennial rye grass, common nettle (*Urtica dioica*), broad-leaved dock, white clover (*Trifolium repens*) and rosebay willowherb (*Chamerion angustifolium*). Other species present include ground ivy, creeping thistle (*Cirsium arvense*), smooth sow-thistle (*Sonchus oleraceus*), white dead nettle (*Lamium album*), common sorrel (*Rumex acetosa*), wild radish (*Raphanus raphanistrum*) and lesser hawkbit (*Leontodon saxatilis*).
- 4.2.12 The ruderal vegetation and verge side have recently been mown, as cuttings are obvious.
- 4.2.13 The ecological importance of the ruderal vegetation and road verges is below the local level.

Hedgerows and Trees

- 4.2.14 Three hedgerows are present at the Site, all of which have been recently laid, two of which are defunct, and one is intact. All hedgerows are species-poor, with a wooden post wire fence running along the internal field boundary.
- 4.2.15 The intact hedgerow runs along the southern boundary of field F2, comprising blackthorn (*Prunus spinosa*), hawthorn (*Crataegus monogyna*), field maple (*Acer campestre*) and bramble (*Rubus fruticosus* agg.).
- 4.2.16 The remaining two defunct hedgerows composed the eastern boundary of field F2 and the southern boundary of field F1. These hedgerows comprised hazel (*Corylus avellana*), blackthorn, hawthorn and field maple.
- 4.2.17 All hedges at the Site are likely to be of ecological value below the local level due to their limited size, generally poor structure and limited connectivity that they provide to the wider area.
- 4.2.18 A large oak tree is located in the south eastern corner of field F1.

4.3 Species Groups

- 4.3.1 Please note in respect of biological records, that all data from pre-1993 (25+ years) has been filtered from the data search as data older than this is unlikely to be significant to the Proposed Development.

Plants

- 4.3.2 No records of protected/notable plant species were provided from or adjacent to the Site by the local biological records centre (TVERC, 2018).



- 4.3.3 No protected plant species were observed at the Site. Due to the managed nature of the fields present at the Site, it is unlikely that protected plants will form a significant constraint to the Proposed Development and vegetative species were able to be identified to species level.
- 4.3.4 No further surveys are necessary for protected plant species in order to inform the planning application. No significant effects on protected plant species are anticipated to arise as a result of the Proposed Development.

Invertebrates

- 4.3.5 Two records of Schedule 5 (HMSO, 1981) and Section 41 (HMSO, 2006) invertebrate species of principal importance were provided by the local biological records centre. Records of brown hairstreak (*Thecla betulae*) and Roman snail (*Helix pomatia*) were identified c.900m south of the Site.
- 4.3.6 The Site may host brown hairstreak occasionally, as its caterpillars feed exclusively upon blackthorn, which is present within the hedgerows. The defunct hedgerow separating the hardstanding carpark and field F2 is to be removed as part of the Proposed Development.
- 4.3.7 Hedgerow removal should take place in January or February to minimise impacts to this species and additional blackthorn hedgerow planting should be carried out, to mitigate for the loss of egg laying habitat, as part of the Proposed Development.
- 4.3.8 The Roman snail is unlikely to be affected by the Proposed Development as no suitable habitat is present within the Site.
- 4.3.9 The grazed nature of the grassland present within the Site, as well as the generally low botanical diversity of the Site is unlikely to result in the Site being important for other invertebrates.
- 4.3.10 No further surveys for invertebrates are necessary, and no other significant effects on notable/protected invertebrate species are anticipated to arise as a result of the Proposed Development. However, any planting scheme put forward for the Proposed Development must include a wide-range of native wildflowers to improve the availability of food and larval plants for native invertebrates at the Site and to encourage the distribution of these species in the local area.

Amphibians

- 4.3.11 No records of amphibians within 1km of the Site were provided by TVERC (TVERC, 2018).
- 4.3.12 There are no water bodies present at the Site; however, four ponds are located within 500m of the Site.
- 4.3.13 One pond located c.460m to the west of the Site, was surveyed in March 2018 as part of a report produced to construct the Proposed Development c.160m south of the Site (Wharton, 2018). This report deemed that the pond was unlikely to be affected by the Development Proposals, because the majority of great crested newts remain within 50m of the breeding pond (Cresswell & Whitworth, 2004) and the Natural England Rapid Risk Assessment for this development in relation to great crested newts (*Triturus cristatus*) within this pond, results in an offence being highly unlikely.
- 4.3.14 Three ponds are present c.300m north of the Site, which were not previously surveyed. They appear to be in use as water jumps for the equestrian school and have a negligible Habitat Suitability index (HSI).
- 4.3.15 The Site is unlikely to support amphibian species (including great crested newts); due to the lack of vegetation cover. It is unlikely that amphibians (incl. great crested newts) will migrate



through the open habitat c.300m and c.460m from the northern and western ponds, to the Site. Although the presence of amphibians at the Site cannot be entirely ruled out; the Site is unlikely to be important for amphibian populations due to the unsuitability of terrestrial habitat and lack of aquatic habitat at and near to the Site.

- 4.3.16 It is highly unlikely (as per Natural England's rapid risk assessment) that great crested newts will be adversely affected by the Proposed Development, and no further surveys for great crested newts are necessary to inform the planning application. No significant effects on great crested newt are anticipated to arise as a result of the Proposed Development.

Reptiles

- 4.3.17 No records of reptiles within 1km of the Site were provided by TVERC (TVERC, 2018).
- 4.3.18 Although the presence of reptiles at the Site cannot be entirely ruled out; the Site is unlikely to support reptiles due to regular disturbance by mowing and grazing.
- 4.3.19 The majority of the Site is of negligible suitability for reptiles due to the use of the grassland by grazing horses.
- 4.3.20 No further surveys are necessary for reptiles to inform the planning application, and no significant effects to reptiles are likely to arise as a result of the Proposed Development.

Birds

- 4.3.21 No Schedule 1 (HMSO, 1981) birds were identified in the biological records search (TVERC, 2018).
- 4.3.22 A single record of a swift (*Apus apus*) was returned from the biological records search (TVERC, 2018), within 1km of the Site, in 2012. The building present within the Site may provide existing suitable nesting habitat for this species and is not to be affected by the Proposed Development. However, as the Site is within the Cherwell District, who have set out a Cherwell Swift Conservation Project, the inclusion of two Swift Nest Bricks should be integrated into the Proposed Development.
- 4.3.23 The Site is suitable for use by common bird species as foraging and nesting habitat, though it is unlikely to be an important resource above the local level due to its size and limited extent of suitable foraging habitat.
- 4.3.24 No disturbance of Schedule 1 birds (HMSO, 1981) is therefore likely as a result of development of the Site providing pre-commencement checks are undertaken.
- 4.3.25 No further specific surveys are necessary for breeding or wintering birds at the Site; though any vegetation clearance should avoid the nesting bird season or be checked by a suitably qualified ecologist immediately prior to clearance to check for nesting birds.
- 4.3.26 Any proposed development of the Site should aim to provide a wide range of fruit and/or seed-bearing plants within a landscape scheme, as well as integrated bird boxes and wildflower planting to retain the foraging interest for birds at the Site.

Bats

Biological Records

- 4.3.27 No records of bats within 1km of the Site were provided by TVERC (TVERC, 2018).

Commuting Habitat

- 4.3.28 The hedgerows present within the Site provide linear features which are likely to have some importance for commuting bats within the local area, as they connect the Site to the wider area, which includes areas of woodland to the north and south and the River Stour to the south.



- 4.3.29 No further surveys to determine adverse effects on commuting bats are necessary. Lighting impacts should be avoided adjacent to Grange Lane to the south, to preclude a reduction in the suitability of this wildlife corridor for commuting bats.

Foraging Habitat

- 4.3.30 Whilst the Site is likely to be used by foraging bats, it is unlikely that it is an important foraging resource as the Site is relatively small in size and better-quality foraging habitat is present both in the local and wider area.
- 4.3.31 No further surveys to determine the importance of the Site for foraging bats are necessary to inform the planning application, as no significant impacts are likely to arise on foraging bats from the Proposed Development. The Proposed Development should however aim to retain and enhance the hedgerows at the Site, if this is not possible then any planting scheme should contain a wide-range of native plants, including nectar and pollen-rich species to attract invertebrate prey for bats in the local area to mitigate any adverse effects.

Roosting Habitat

- 4.3.32 The oak tree present in the northeast corner of the Site has moderate suitability for roosting bats from ground level inspection of the tree. However, no evidence of roosting bats was observed. This tree is to be retained as part of the Development Proposals.
- 4.3.33 The Farriers building is a 'u' shaped barn, divided up into stables, a forge, an office space and a small residential dwelling. The stone building is timber-framed and has wooden cladding in parts, with a corrugated iron roof. The roofing of the stables and forge was unlined and therefore no cavity was present. Access to the office and residential dwelling was not possible; however, no access points were visible from the exterior of the building from the roof. Access points were visible between the wooden cladding, which appeared to have a cavity behind in some areas. However, as this building is to be retained as part of the Development Proposals, no further surveys are required to determine roosting presence of bats within the building.
- 4.3.34 A metal storage container is present in the south of the Site, which is to be removed as part of the Proposed Development. However, the container had negligible suitability for roosting bats, due to no visible access points or potential roosting locations identified. No evidence of roosting bats was observed within the storage container.
- 4.3.35 No further surveys for roosting bats are deemed necessary to inform the planning application, as no significant impacts are likely to affect roosting bats. The inclusion of an Integrated Bat Tube to the Proposed development, will provide suitable roosting habitat, to continue connectivity for bats present within the wider habitat. In the event that integration is not possible as part of the Proposed Development, an external Greenwood Ecostyrocete bat box should be provisioned.

Badgers

- 4.3.36 No records of badgers (*Meles meles*) were provided by TVERC (TVERC, 2018) within 1km of the Site and no evidence of badger foraging, commuting or setts were observed at the Site.
- 4.3.37 No further surveys are considered necessary to inform the planning application in respect of badger.

Hazel Dormouse

- 4.3.38 The Site is considered to be unsuitable for hazel dormouse (*Muscardinus avellanarius*). No records were provided by the local records centre (TVERC, 2018), and no further surveys are considered necessary for the species to inform the planning application.



Hedgehog

- 4.3.39 No records of hedgehog (*Erinaceus europaeus*) were returned by the local records centre (TVERC, 2018), however the Site is likely suitable for hedgehog. No further surveys are considered necessary for the species to inform the planning application.

Water Vole

- 4.3.40 No records of water vole were provided by the local biological records centre (TVERC, 2018), and it is unlikely that water vole would be impacted by the Proposed Development.
- 4.3.41 No further survey effort is necessary for water vole.

Otter

- 4.3.42 No records of otter were provided by the local records centre (TVERC, 2018). It is therefore unlikely that otter would be impacted by the Proposed Development and no further survey effort is necessary.

Invasive Flora

- 4.3.43 No evidence of invasive floral species was observed at the Site.

Invasive Fauna

- 4.3.44 No evidence of invasive faunal species was observed at the Site.



5. Key Ecological Constraints

5.1 Invertebrates

- 5.1.1 Brown hairstreak butterflies are legally protected (HMSO, 1981) and are listed as a species of principal importance (HMSO, 2006). This butterfly is also afforded protection in planning through the local planning policy (Cherwell District Council, 2015).
- 5.1.2 Although no evidence of brown hairstreak was recorded within the Site, the local biological records centre (TVERC, 2018) identified this species within 1km of the Site. Blackthorn is vital for this species lifecycle and is present within the hedgerows at the Site. The defunct hedgerows separating the hardstanding carpark and field F2 are to be removed as part of the Proposed Development.
- 5.1.3 Hedgerow removal should take place in January or February to minimise impacts to this species and additional blackthorn hedgerow planting should be carried out, to mitigate for the loss of egg laying and feeding habitat, as part of the Proposed Development.

5.2 Birds

- 5.2.1 Nesting birds may pose a constraint to the construction phase of the Proposed Development hedgerow removal is undertaken during the nesting bird season. To avoid this constraint, works must be undertaken outside of the nesting season or checked by an ecologist beforehand if undertaken inside the nesting season.
- 5.2.2 As records of a swift (*Apus apus*) have been returned within 1km of the Site, which is within the Cherwell Districts Swift Conservation Project area, the inclusion of two Swift Nest Bricks should be integrated into the Proposed Development.

6. Conclusion

- 6.1.1 No further surveys are required as part of the Proposed Development.
- 6.1.2 Hedgerow removal should take place in January or February to minimise impacts to brown hairstreak and additional blackthorn hedgerow planting should be carried out, to mitigate for the loss of egg laying and feeding habitat, as part of the Proposed Development.
- 6.1.3 Nesting birds may pose a constraint to the construction phase of the Proposed Development. Works must be undertaken outside of the nesting season or checked by a suitably qualified ecologist beforehand if undertaken inside the nesting season.
- 6.1.4 The inclusion of two Swift Nest Bricks should be integrated into the Proposed Development.
- 6.1.5 Potential bat roosting locations were identified as access points between the wooden cladding of the farriers building and within the oak tree. However, as both are to be retained as part of the Development Proposals, no further surveys are required to determine roosting presence of bats.
- 6.1.6 The Proposed Development should include an Integrated Bat Tube or an external Greenwood Ecostycrete bat box.
- 6.1.7 Should protected species be unexpectedly found during construction, works should cease immediately, and an ecologist/Natural England should be contacted for advice on how to proceed.



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Preliminary Ecological Assessment

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Appendix 1 – Site Location Plan (Google Earth Pro, 2018)



Swalcliffe

B4035

Green Ln

Swalcliffe Rd

Upper

Grange Ln

Park Ln

Hawk's Ln
oford Ferris

Google Earth

© 2018 Google



1 km










Preliminary Ecological Assessment

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Appendix 2 – Phase 1 Habitat Plan



-  Redline
-  Improved Grassland
-  Hardstanding
-  Other habitat
-  Ruderal
-  Building
-  Intact species-poor hedgerow
-  Defunct species-poor hedgerow
-  Tree
-  Target note

Date: 30/10/2018

Client: Sheldon Bosley Knight

Project: 0722 Swalcliffe Farm, Swalcliffe

Title: Extended Phase 1 Habitat Plan

Map file reference	DWG No
181030_0722_PEA V1	Fig 1

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10 0 10 20 30 40 m





Appendix 3: Site Photographs

Figure 1. *Field F1*



Figure 2. *Field F2 – southern boundary*





Figure 3. *Field F2 – eastern boundary*



Figure 4. *Hardstanding carpark*





Figure 5. Ruderal vegetation



Figure 6. Verge and Grange Lane





Figure 7. Farriers building and office space



Figure 8. Farriers building – south facing





Figure 9. Farriers building – residential dwelling



Figure 10. Farriers building – internal stable





Figure 11. *Farriers building – wooden cladding*



Figure 12. *Hardstanding and buildings beyond the redline*





Figure 13. *Oak tree with moderate bat potential*



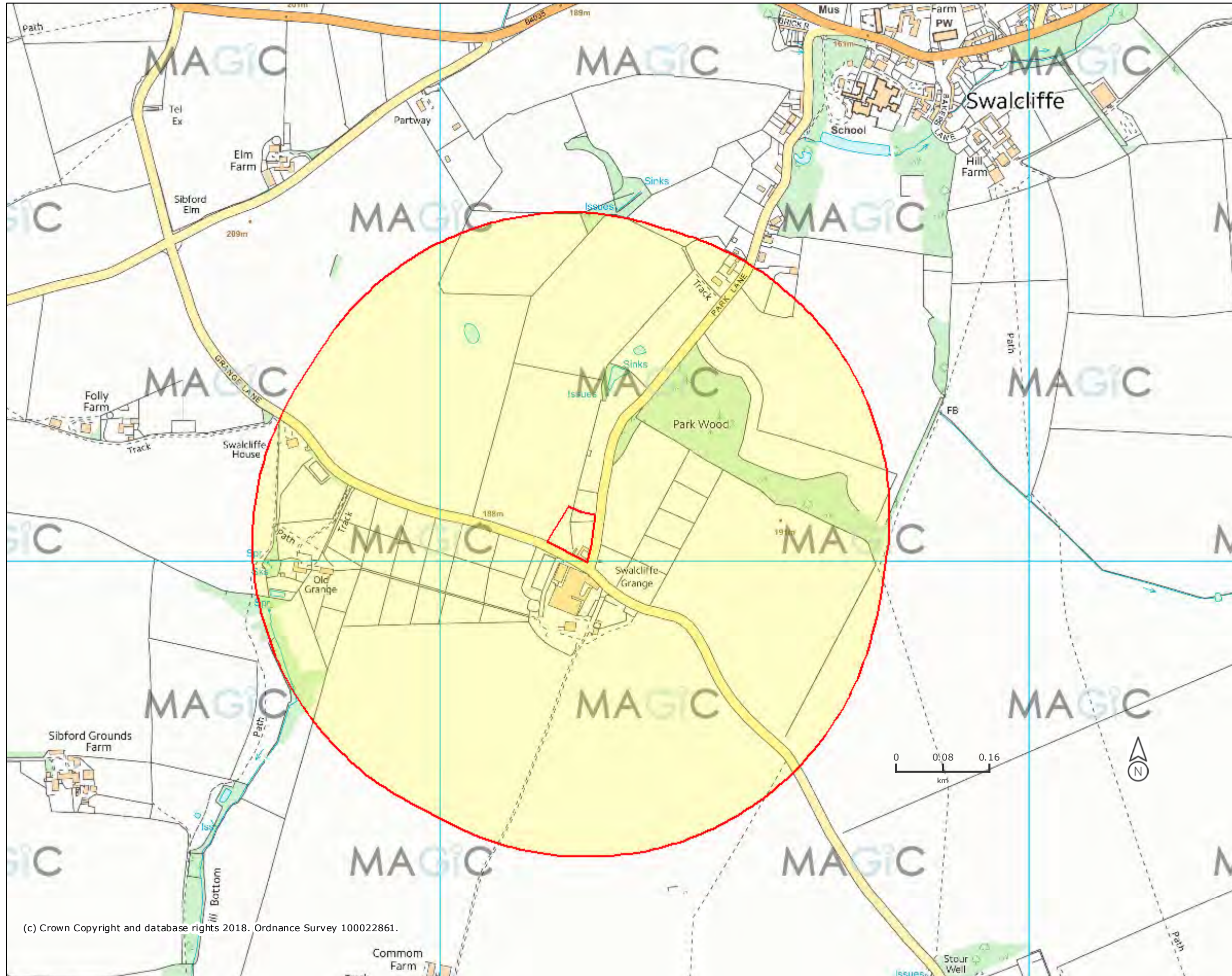
Preliminary Ecological Assessment

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Appendix 4 – Pond Location Plan

Swalcliffe Farm - Pond Plan (500m)



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Projection = OSGB36
 xmin = 435600
 ymin = 236300
 xmax = 439000
 ymax = 238000

0 0.1 0.2
 km

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