



ecosupport

Burndell Road, Yapton

PEA

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Client:
Driftstone Developments

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Executive Summary

Ecosupport Ltd was instructed by Driftstone Homes to undertake a Preliminary Ecological Appraisal (PEA) of a parcel of land located off Burndell Road, Yapton to identify any potentially important ecological features that may be affected by the proposed development. As part of this assessment, the following surveys were undertaken:

- Desktop survey submitted to the Sussex Biodiversity Records Centre (SxBRC) (June 2020)
- Extended phase I habitat survey (June 2020)

The following important ecological features were identified on site following the conclusion of the above survey work and may be subject to adverse impacts in the absence of suitable mitigation / compensation:

- Suitable habitat for foraging and commuting bats
- Suitable habitat for common reptile species
- Suitable habitat for breeding and nesting birds

In the absence of any mitigation measures, the proposed development is anticipated to result in, certain adverse effects (significance level to be determined following additional survey work).

Suitable mitigation measures will be outlined within reports that will accompany this document following the conclusion of the additional survey work recommended.

1.0 INTRODUCTION

1.1 Brief

Ecosupport Ltd was commissioned by Driftstone Homes to conduct a Preliminary Ecological Appraisal (PEA) of a parcel of land located off Burndell Road, Yapton. The purpose of this survey was to assess any ecological impacts that may arise as a result of the proposed development. The objectives of the survey were as follows:

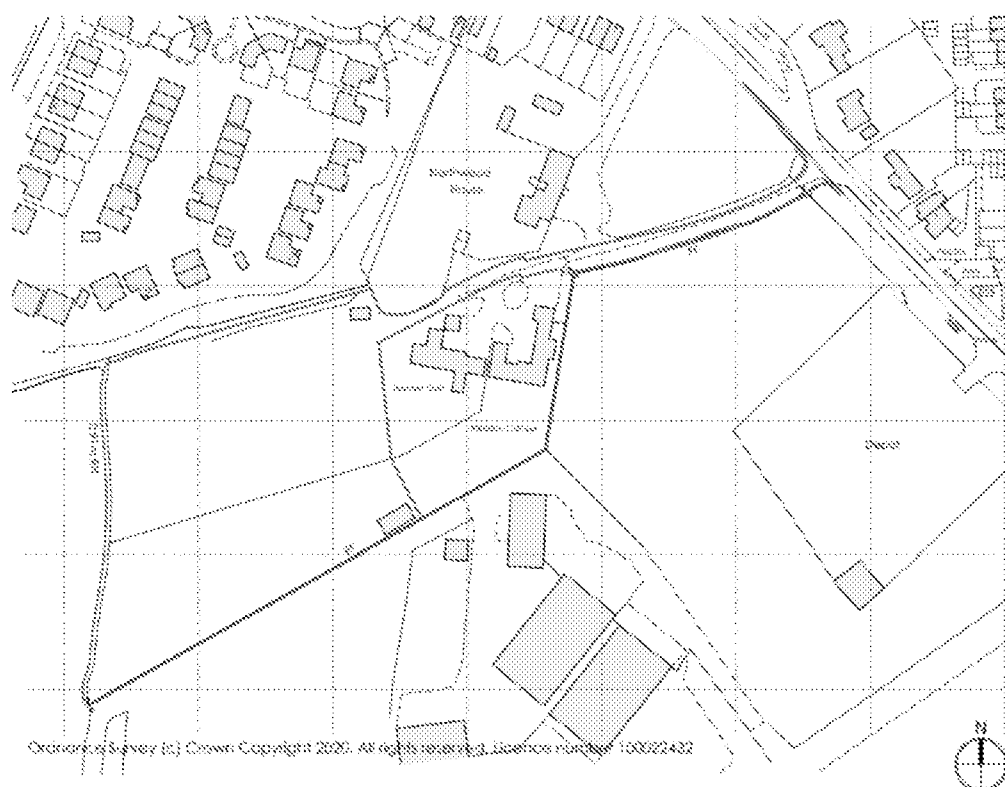
- Assess the ecological value of the site
- Identify any signs of protected species and potential features that may support them
- Make recommendations for further survey work as appropriate.

NB If the development does not take place within 18 months¹ of this report then the findings of this survey will no longer be considered valid and may require updating.

1.2 Site Description & Location

The site comprises the land located to the rear of the 2 dwellings located to the west of Burndell Road, Yapton, BN18 0HR (centred on OS grid reference SU985027) (**Fig 1**). The eastern boundary of the site is marked by 2 cottage dwellings with an access track leading to Burndell Road beyond, the north of the site by a new residential development the west by an arable field and the southern by a recycling centre.

Figure 1. Redline location plan of the site.



¹ <https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf>

1.3 Proposed Development

The proposals entail the demolition of the outbuildings on site and the creation of a new residential development with access via Burndell Road.

2.0 RELEVANT LEGISLATION AND POLICY

2.1 Legislation

2.1.1 *The Conservation of Habitats and Species Regulations (2018)*

This transposes the EU Habitats Directive (Council Directive 92/43/EEC) into UK domestic law. It provides protection for sites and species deemed to be of conservation importance across Europe. It is an offence to deliberately capture, kill or injure species listed in Schedule 2 or to damage or destroy their breeding sites or shelter. It is also illegal to deliberately disturb these species in such a way that is likely to significantly impact on the local distribution or abundance or affect their ability to survive, breed and rear or nurture their young.

2.1.2 *The Wildlife and Countryside Act (1981) (as amended)*

This is the primary piece of legislation by which biodiversity is protected within the UK. Protected fauna and flora are listed under Schedules 1, 5 and 8 of the Act. They include all species of bats, making it an offence to intentionally or recklessly disturb any bat whilst it is occupying a roost or to intentionally or recklessly obstruct access to a bat roost. Similarly, this Act makes it an offence to kill or injure any species of British reptiles and also makes it an offence to intentionally kill, injure or take any wild bird or to take, damage or destroy their eggs and nests (whilst in use or being built).

2.1.3 *The Countryside and Rights of Way Act (2000)*

This Act places a duty on Government Ministers and Departments to conserve biological diversity and provides police with stronger powers relating to wildlife crimes.

2.1.4 *NERC Act*

The Natural Environment and Rural Communities (NERC) Act 2006 requires that public bodies have due regard to the conservation of biodiversity. This means that Planning authorities must consider biodiversity when planning or undertaking activities. Section 41 of the Act lists species found in England which were identified as requiring action under the UK Biodiversity Action Plan and which continue to be regarded as conservation priorities under the *UK Post – 2010 Biodiversity Framework*.

2.1.5 *Protection of Badgers Act*

The Protection of Badgers Act (1992) relates to the welfare of Badgers (*Meles meles*) as opposed to nature conservation considerations. The Act prevents:

- The wilful killing, injury, ill treatment or taking of Badgers and / or
- Interference with a Badger sett
- Damaging or destroying all or part of a sett
- Causing a dog to enter a set and
- Disturbing a Badger while it is occupying a sett

Provisions are included within the Act to allow for the lawful licensing of certain activities that would otherwise constitute an offence under the Act.

2.2 Policy

2.2.1 National

Section 15 of the National Planning Policy Framework (NPPF) 'Conserving and enhancing the natural environment' states that planning policies and decisions should contribute to and enhance the natural environment. They should do this by protecting and enhancing sites of biodiversity and minimising impacts on and providing net gains for biodiversity, including establishing coherent ecological networks.

The plan states to protect and enhance biodiversity plans should identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks. This includes the hierarchy of international, national and locally designated sites of importance for biodiversity, wildlife corridors and stepping stones that connect them. Plans should identify the protection and recovery of priority species and opportunities for securing measurable net gains for biodiversity.

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

- if significant harm to biodiversity resulting from a development cannot be avoided, adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- 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;
- 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
- 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.

2.2.2 Local – Adoption Arun Local Plan 2011 – 2031 (July 2018)

Policy ENV DM5 Development and biodiversity

"Development schemes shall, in the first instance, seek to achieve a net gain in biodiversity and protect existing habitats on site. They shall also however incorporate elements of biodiversity including green walls, roofs, bat and bird boxes as well as landscape features minimising adverse impacts on existing habitats (whether designated or not). Development schemes shall also be appropriately designed to facilitate the emergence of new habitats through the creation of links between habitat areas and open spaces. Together, these provide

a network of green spaces which serve to reconnect isolated sites and facilitate species movement. Where there is evidence of a protected species on a proposed development site, planning applications shall include a detailed survey of the subject species, with details of measures to be incorporated into the development scheme to avoid loss of the species. This involves consideration of any impacts that will affect the species directly or indirectly, whether within the application site or in an area outside of the site, which may be indirectly affected by the proposals. All surveys shall be carried out at an appropriate time of year and shall be undertaken by a qualified and, where appropriate, suitably licensed person. All developments shall have regard to Natural England's standing advice for protected species."

3.0 METHODOLOGY

3.1 Desk Study

3.1.1 Data Request

A data request was submitted to the Sussex Biodiversity Records Centre (SxBRC) in order to ascertain any records held of nature conservation designations and protected species within 1 km of the boundary of the site.

The data search covered:

- Statutory designated sites
- Non-statutory designations such as Local Wildlife Sites (LWS)
- Records of protected and notable species.
- Records for waders and Brent Geese

3.1.2 Waterbodies

Any ponds located within 500 m of the proposed development were searched for using Ordnance Survey maps and available aerial images.

3.2 Field Survey

3.2.1 Habitats

The field survey work which forms the basis of the findings of this report was carried out by Adam Jessop ACIEEM, (8 years post MSc graduation experience) on the 5th June 2020.

The Phase 1 Habitat survey (JNCC, 2010) methodology was adopted which is a method of classifying and mapping wildlife habitats in Great Britain. It was originally intended to provide “...relatively rapidly, a record of semi-natural vegetation and wildlife habitat over large areas of the countryside”. The standard Phase 1 Habitat survey methodology has been ‘extended’ in this report to include the following:

- Floral species lists for each identified habitat;
- Descriptions of habitat structure, the evidence of management and a broad assessment of habitat condition;
- Mapping of additional habitat types (e.g. hardstanding);
- Identification of Priority Habitats under Section 41 of the NERC Act;
- Evidence of, or potential for, the presence of certain species/groups

3.2.2 Badger

The site was thoroughly searched for evidence of use by Badgers (*Meles meles*), with the specific aim of identifying the presence and location of any setts. In accordance with the *Badgers and Development: A Guide to Best Practice and Licensing* (Natural England, 2011) guidance, the survey accounted for a 30m from the site’s boundary (observed where possible i.e. does not conflict with private dwellings). Evidence of Badgers could include latrines, dung pits, feeding remains and foraging evidence, trails and setts.

3.2.3 Bats

An assessment was made of the suitability the buildings on site to support roosting bats based on the presence of any Potential Roost Features (PRFs). This involved the use of 8 x 42 close focus binoculars and a high-powered torch (where required) for a more detailed inspection of any features along with an internal inspection of the accessible loft space. The survey conformed to current best practice guidance as described *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2016) and was undertaken by Adam Jessop (NE class level 2 bat licence number 2015-13366-CLS-CLS).

3.3 Assessment Methodology

3.3.1 Introduction

The methodology for the assessment of the likely ecological effects of the proposed development is based on IEEM's *Guidelines for Ecological Assessment in the UK* (CIEEM 2018). Although this assessment does not constitute a formal Ecological/ Environmental Impact Assessment, the IEEM guidelines provide a useful framework for assessing ecological impacts at any level.

3.3.2 Valuation

Features of ecological interest are valued on a geographic scale. Value is assigned on the basis of legal protection, national and local biodiversity policy and cultural and/or social significance.

3.4 Limitations

There were not considered to be any limitations on the results of the walkover survey with all areas of the site accessible and the survey conducted at the appropriate time of year (when vascular plants are in flower) and during good weather conditions.

4.0 ECOLOGICAL BASELINE

4.1 Designated Sites

4.1.1 Statutory & Non-Statutory Sites

The SxBRC data request did not identify any statutory (**Fig 2**) or non-statutory (**Fig 3**) designated sites within the 1 km search radius.

Figure 2. Map provided by SxBRC which did not identify any statutory designated sites within the 1 km search radius.

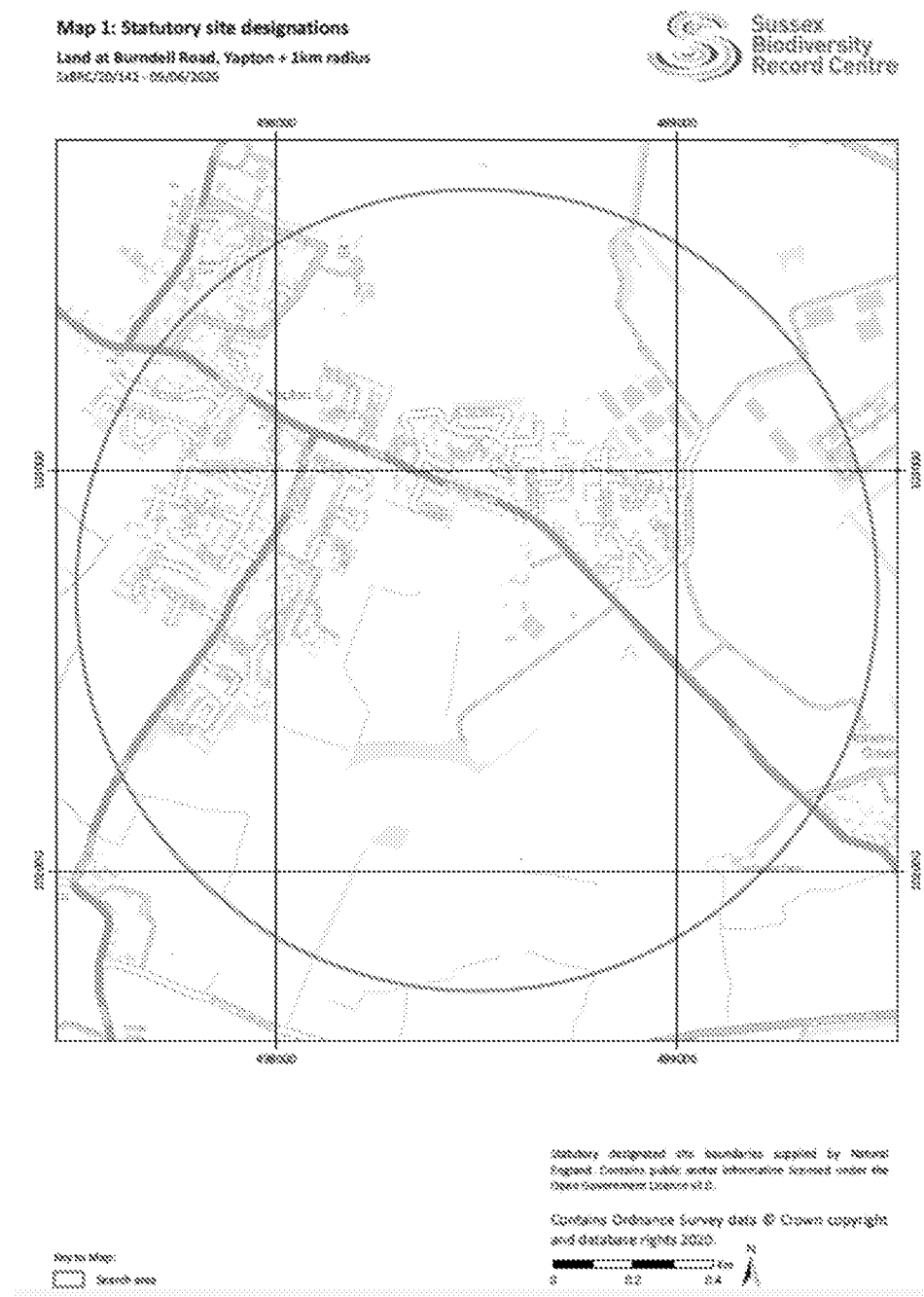
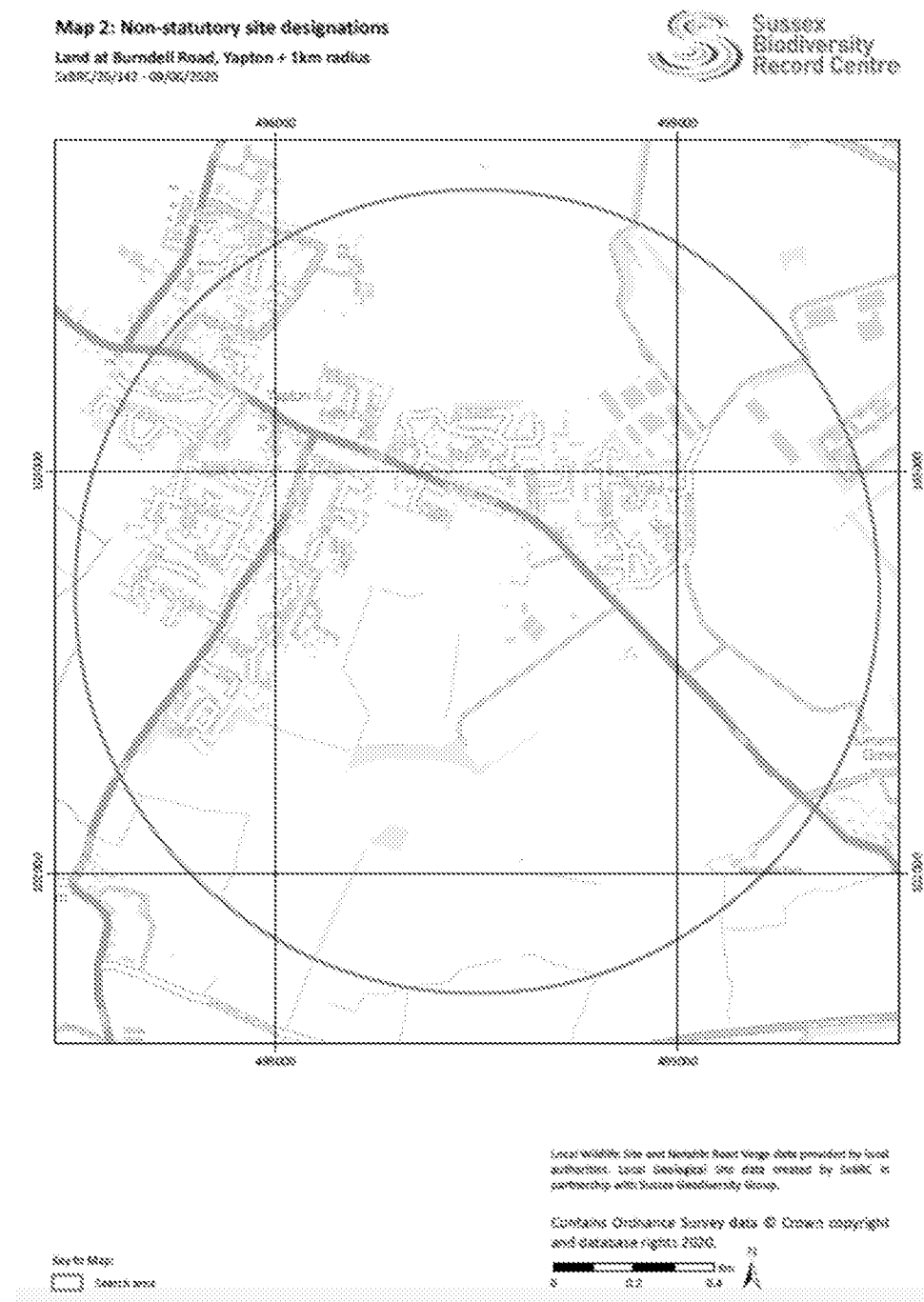


Figure 3. Map provided by SxBRC which did not identify any non-statutory designated sites within the 1 km search radius.



4.2 Vegetation Survey Results

The vegetation within the site has been described below using the broad Phase I habitat classification terminology as described with JNCC (2010). The below species noted should not be considered an exhaustive list and instead refer to dominant, characteristic and other noteworthy species associated with each community within the survey area. The habitat types on site comprise (phase 1 habitat map appended):

- Amenity grassland
- Tall ruderal / scrub
- Hedgerow (naive species rich, native species poor and ornamental)
- Scattered trees
- Hard standing
- Buildings

4.2.1 Amenity Grassland

The dominant habitat type on site is a grassland located to the rear of both properties that has been well managed for amenity purposes (**Fig 4**). This habitat type supported the following species (***NB this list will not be exhaustive due to the very low sward height of the grass***); *Poa* spp, Yorkshire Fog (*Holcus lanatus*), Sheep's Sorrel (*Rumex acetosella*), Daisy (*Bellis perennis*), Creeping Buttercup (*Ranunculus repens*), White Clover (*Trifolium repens*) and Lesser Stitchwort (*Stellaria graminea*).

Figure 4. Managed amenity grassland with a low sward height. This was the dominant habitat type on site.



4.2.2 Tall Ruderal / Scrub

The southern western boundary of the site (adjacent to the hedgerow) supported a large bed of Common Nettles (*Urtica dioica*) with Cleaver (*Galium aparane*) and Dock (*Rumex* spp) along with areas of Bramble (*Rubus fruticosus* agg) dominated scrub also present.

4.2.3 Hedgerow (native species rich, native species poor & ornamental)

The boundaries of the site are marked by hedgerows which are both native species rich and native species poor. The northern and western boundaries can predominately be considered native species rich supporting Dog Rose (*Rosa canina*), Field Maple (*Acer campastre*), Elder (*Sambucus nigra*), Blackthorn (*Prunus spinosa*), Guelder Rose (*Viburnum opulus*), Wayfaring Tree (*Viburnum lantana*) and Hazel (*Corylus avellana*) (Fig 5).

Figure 5. Native species rich hedgerow located along the site's northern boundary



The eastern boundary hedgerow is predominately formed by unmanaged mature Elder and the southern boundary almost entirely of Hawthorn (*Crataegus monogyna*) (seen in Fig 4). There are also hedges internally within the site found within the gardens (separating different areas) and between the two properties which were formed by Beech (*Fagus sylvatica*).

4.2.4 Scattered Trees

There are a number of scattered trees located (in the northern half of the site) including an area that has been created as a small plantation. The more established / mature trees present included *Salix* spp, *Populus* spp, Wild Cherry (*Prunus avium*), Ash (*Fraxinus excelsior*), *Quercus* spp and Silver Birch (*Betula pendula*). Species present within the plantation (which were all still relatively immature) included Rowan (*Sorbus acuparia*), Dogwood (*Cornus sanguinea*),

Alder (*Alnus glutinosa*), Silver Birch (*Betula pendula*) and Hazel (*Corylus avellana*). In addition to these trees, the access track into the site (off Burndell Road) also supports a line of trees including Lombardy Poplar (*Populus nigra*), Lime (*Tilia x europaea*) and Scot's Pine (*Pinus sylvestris*).

4.2.5 Hard Standing

The access track into the site is comprised of shingle hard standing with this also leading into the garden areas (area which will ultimately form the access into the site (**Fig 6**).

Figure 6. Small area of shingle hard standing which will ultimately form the access into the site.



4.2.6 Buildings

The final habitat type is buildings and these have been described in greater detail in section 4.3.2 below as part of the preliminary roost assessment.

4.3 Bat Survey Results

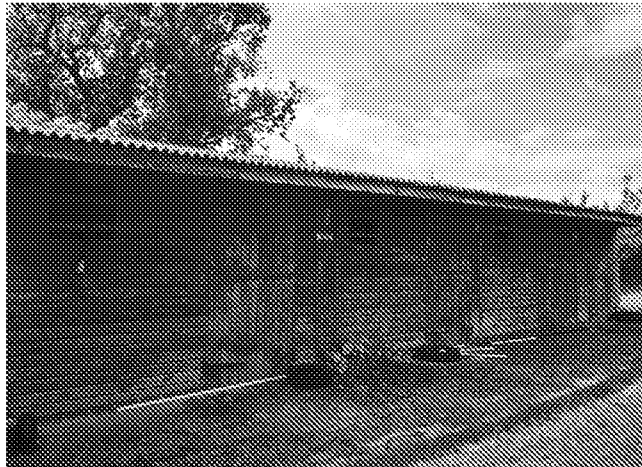
4.3.1 Pre-existing Data

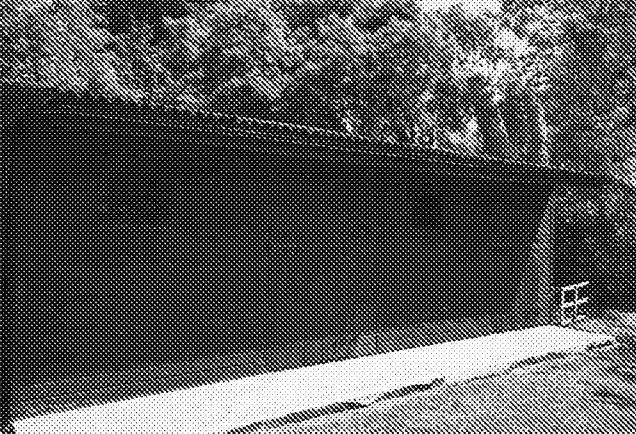
SxBRC have returned the following records from within 1 km of the site; Serotine (*Eptesicus serotinus*) 1 record, Natterer's Bat (*Myotis nattereri*) 1 record, Noctule (*Nyctalus noctula*) 1 record, *Pipistrellus* spp 1 record and Common Pipistrelle (*Pipistrellus pipistrellus*).

4.3.2 Preliminary Roost Assessment (buildings)

The results of the preliminary roost assessment undertaken covering the building on site is provided within **Table 1** below.

Table 1. Findings of the preliminary roost assessment.

Building	Image	Description of Construction	PRFs / Evidence of Occupation	Assessed Roost Potential
Horse stables (southern boundary)	Figure 7. External view of horse stables located along the site's southern boundary. 	Disused horse stable block that is currently being used for storage purposes. Constructed from wood with tongue and groove connection with a corrugated plastic / rubber single skin roof (i.e. no underlining).	Building generally in a good state of repair although PRFs noted where small sections of the wood have lifted on the building's externals. There is also direct access into the building via gaps above the access doors with evidence of Swallow (<i>Hirundo rustica</i>) nesting. No evidence of bat occupation was noted internally.	Low

Horse stables / shed (northern boundary)	Figure 8. Horse stable block located on the site's northern boundary. 	A horse stable block (although it is understood this has only ever been used as a shed) was also located on the site's northern boundary. This was of a very similar construction type to the one located on the southern boundary although was entirely sealed (i.e. no gaps above the access doors) and was in a better state of repair.	No suitable PRFs noted on buildings externals and no evidence of bat occupation.	Negligible.
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4.3.3 Foraging and Commuting Habitat

The site is largely dominated by well managed grassland of limited ecological value though is bounded in sections by a native species hedgerow and tree lines (although the habitats in the wider area can also be considered sub optimal for foraging and commuting bats). Taking this into account, along with the somewhat limited number and diversity of records provided by SxBRC, the site is considered to be of **Low** potential for foraging and commuting bats).

4.4 Badgers

4.4.1 Pre-existing Information

No records of Badger were provided by SxBRC from within the 1 km search radius.

4.4.2 Site Survey

No evidence of resident Badger was noted whilst undertaking the walkover survey on site although the grassland can be considered to provide a potentially suitable foraging resource. From discussions with the landowner, it Foxes have been known to use the site and a (seemingly) inactive den was noted along the western boundary of the site.

4.5 Reptiles

4.5.1 Pre-existing Information

SxBRC returned 303 records for Slow Worms (*Anguis fragilis*) (301 of which were from the development plot on the site's northern boundary, 2 records of Grass Snake (*Natrix natrix*) and 87 records of Common Lizard (*Zootoca vivipara*) (all of which were also from the development site on the northern boundary).

4.5.2 On Site Suitability

The majority of the grassland habitat on site was well managed and as such, did not support the tussocky structure typically favoured by reptiles. Notwithstanding this, there were small areas of unmanaged grassland located around the site's edges, adjacent to the boundary hedgerows / tree lines and close of 400 records of reptiles were provided for the development site located on the northern boundary. As such, the site is considered to be of **Low** potential for common reptiles.

4.6 Great Crested Newts

4.6.1 Pre-existing Records

SxBRC returned 2 records of GCN presence although these were dated from 2002 and located 1 km to the north west of the site.

4.6.2 Waterbodies Within 500m

The waterbodies that are located within 500m of the site are indicated below in **Fig 9**. This has only identified ditches (one of which on the sites' northern boundary is shown in **Fig 10**) with the pond shown as a drain located just beyond 500m (NB the 2 small ponds shown within the area to the south of the allotment gardens were not present as Ecosupport was involved in the reptile translocation for this site during 2019).

Figure 9. OS map showing the waterbodies located around the site (approximate redline boundary indicated).

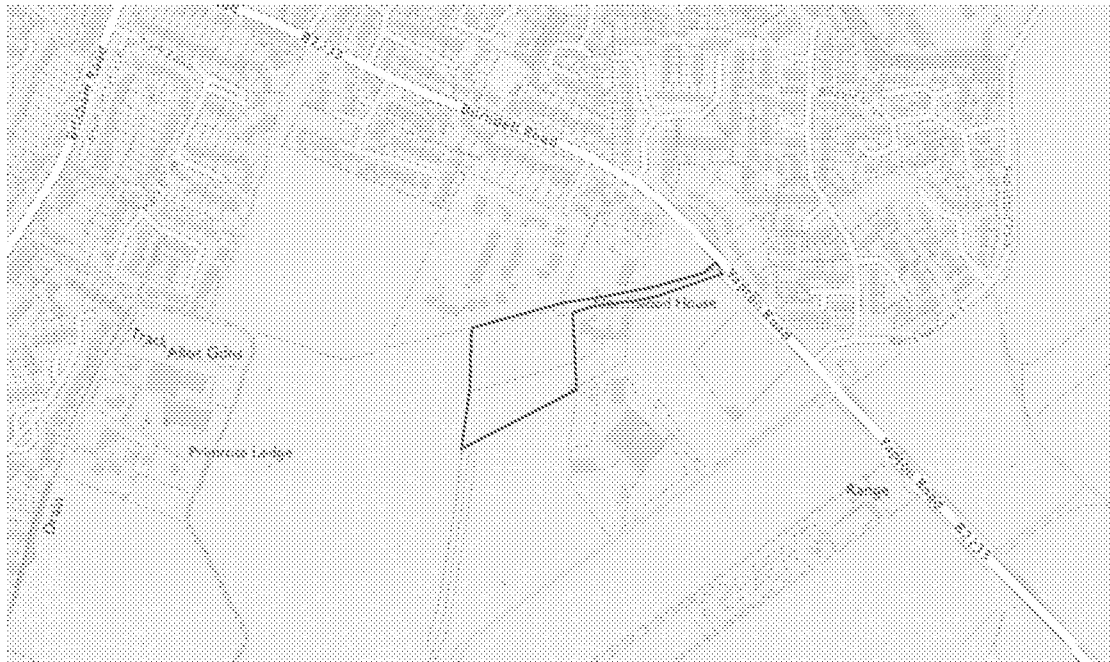


Figure 10. The ditch located along the site's northern boundary which was completely dry at the time of the site survey (June). It is understood that this does hold some water during winter or after prolonged spells of wet weather.



4.7 Hazel Dormouse

SxBRC did not return any records of Dormice from within the 1 km search radius. In terms of the suitability of the on-site habitat, there are a number of native hedgerows which support a variety of different species (and would therefore provide a protracted source of food throughout the year) that are favoured by Dormice (as per Bright et al., 2006). Notwithstanding this, when viewed in a wider landscape context, the hedgerows are somewhat isolated from the hedgerows in the wider landscape and they do not provide any connectivity to extensive areas of woodland. Consequently, when this is taken into account, along with the proposed plans to leave all hedgerows (with the exception of the ornamental Beech ones within the site's internals) intact, the site is considered to be of negligible potential for Dormice.

4.8 Nesting and Breeding Birds

SxBRC have returned records for a variety of different bird species including a number of NERC S41 listed species and Birds of Conservation Concern (BoCC). The habitats on site can also be considered suitable for a variety of these species with mature native species rich hedgerows, scattered trees and open buildings (within which Swallows have been nesting). As such, the site is considered to be of Moderate potential for breeding and nesting birds (although the majority of the suitable habitat will be retained).

5.0 LIKELY ECOLOGICAL IMPACTS IN ABSENCE OF MITIGATION

5.1 Introduction

The CIEEM guidelines (CIEEM 2018) require that the potential impacts of the proposals should be considered in absence of mitigation. In order for a significant adverse effect to occur, the feature being affected must be at least of local value. However, in some cases, features of less than local value may be protected by legislation and/or policy and these are also considered within the assessment. Although significant effects may be identified at this stage of the assessment, it is often possible to provide appropriate mitigation. The layout upon which this impact assessment is based is appended to this report.

5.2 Site Preparation and Construction

5.2.1 Impacts to Habitats

The development will result in the loss of amenity grassland, tall ruderal, scattered trees and ornamental hedgerow with the majority of this habitat considered to be of value at the **Site** level of significance. The development will however be taking place adjacent to mature hedgerows and scattered trees which could be harmed through dust deposition and root zone compaction (with these features considered to be of **Local** value.) **Therefore, a potential minor – moderate adverse impact upon habitats of value at the local level is possible.**

5.2.3 Impacts to Wildlife

There were a range of suitable habitats present on site noted which could be used by breeding and nesting birds with a diverse range of local records also returned by SxBRC for within a 1km radius of the site. Therefore, an **adverse impact is possible** if clearance works are undertaken without adequate mitigation.

Although suitable habitat is somewhat limited in extent, there are areas that could be used by common reptile species on-site (particularly when the number of records from the adjacent site are accounted for). Should reptiles be present within this habitat, removal would constitute an offence under the W&CA, 1891 and it is considered this would result in a **certain minor adverse impact to a species of local value.**

One of the horse stable building was assessed as being of low potential to support roosting bats and suitable habitat for foraging and commuting bats was also identified. Consequently, construction works could result in the potential damage / disturbance of a roost and impact upon foraging habitat and commuting routes. In the absence of mitigation, this is considered to have a likely **Minor – Moderate adverse impact** (scale of significance to be determined following additional recommended survey work).

5.3 Site Operation

5.3.1 Impacts to Wildlife

The development is taking place in an area within which night time lighting is minimal and therefore any additional lighting associated with the development could result in disturbance to bats along with any other nocturnal wildlife present). Therefore, any further **adverse impact is likely** on any bats present in the vicinity due to lighting.

6.0 RECOMMENDED ACTIONS

6.1 Introduction

The below sections outline a number of recommendations for further survey work required to fully assess the potential ecological impacts of the development and ensure and proposed mitigation and compensation appropriate and proportionate. In addition to this, measures are outlined to protect the existing features of value and provide enhancements post development.

6.2 Bats

6.2.1 Foraging and Commuting

Based on the **Low** habitat suitability assessment for foraging and commuting bats, in accordance with the latest BCT guidelines (Collins (ed) 2016) (as shown in Table 8.3 from the guidelines) *'One survey visit per season in appropriate weather conditions for bats. Further surveys may be required if these survey visits reveal higher levels of bat activity than predicted by habitat alone'*. In addition to this automated / static detector surveys are also required with *'One location per transect, data to be collected on five consecutive nights per season'*.

After the first seasons data has been collated and reviewed (i.e. June / July) if activity levels are higher or species diversity greater than anticipated, the survey effort will be increased accordingly.

6.2.2 Emergence

The horse stable block on the site's northern boundary dwelling was identified as being of **Low** roost potential and will therefore require a single dusk emergence / dawn re-entry survey (as per the survey effort requirements from BCT 2016 **Table 2**).

Table 2. Recommended minimum number of survey visits (from Table 7.3 (BCT, 2016).

Low Roost Suitability	Moderate Roost Suitability	High Roost Suitability
One survey visit. One dusk emergence or dawn re-entry survey.	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey*.	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third could be either dusk or dawn.
May – August	May – September with at least one of the surveys between May - August	May – September with at least two surveys between May and August

6.3 Reptiles

Habitats within the site have been assessed as suitable to support reptiles. These include areas of unmanaged grassland, scrub and tall ruderal which provide suitable habitat for supporting common species of reptile. ***It is recommended that a suite of reptile presence/likely absence surveys be completed.*** This would involve the laying of artificial refugia within areas of suitable habitat and checking the refugia on seven occasions between March and mid-October (optimal survey season April, May and September with July and August typically not considered appropriate) in suitable weather conditions. Should reptiles be present it is recommended that suitable habitats are retained and protected during works, with exclusion fencing used if necessary to ensure reptiles cannot enter the construction area. Translocation of reptiles out of construction area may also be necessary.

6.4 Minimisation of Disturbance to Nocturnal Wildlife

A more detailed scheme of minimising the potential impact of lighting upon sensitive species will be included within the bat activity survey results and mitigation strategy.

6.5 Enhancements

Based on the evolving nature of layouts through the design process, it is considered most appropriate to provide measures that will enhance the site's biodiversity through a stand-alone Biodiversity Enhancement and Mitigation Plan (BEMP) to accompany the application.

7.0 REFERENCES

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