

Preliminary Ecological Appraisal

Haverhill Business Park

Presented to Trebor Developments LLP

Issued: April 2019

Delta-Simons Project No. 19-0446.01



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Report Details

Client	Trebor Developments LLP
Report Title	Preliminary Ecological Appraisal
Site Address	Haverhill Business Park, Bumpstead Road, Haverhill, Suffolk, CB9 7FD
Project No.	19-0446.01
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Quality Assurance

Issue No.	Status	Issue Date	Comments	Author	Technical Review	Authorised
1	Final	04/04/19				
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Executive Summary

Scope of Works	Delta-Simons Environmental Consultants Ltd was instructed by AJA Architects on behalf of Trebor Developments LLP ('the Client') to undertake a Preliminary Ecological Appraisal (PEA) of an area of land situated east of Bumpstead Road, Haverhill in Suffolk, within Haverhill Business Park (the 'Site'). The PEA comprised a Phase 1 Habitat Survey and protected species assessment, which was completed on Friday 22 nd March 2019. The survey was undertaken to inform a planning application for the Site.
Current Site Status	The Site is divided into two sections, to the north and south of Icen Way. The northern section comprises a large expanse of bare ground, with grassland edges, bordered by hedgerows. The southern section includes a smaller area of bare ground with hedgerows and a dry ditch to the east, and an MKM builder's yard comprising hardstanding and amenity grassland on the boundaries.
Proposed Development	It is understood that the proposed development will comprise five industrial units with associated hard and soft landscaping, with access off Icen Way.
Results: Habitats on-Site Habitats adjoining the Site Potential for Protected/ Notable Species	<p>The following habitats are found on the Site:</p> <ul style="list-style-type: none"> ▲ Poor Semi-Improved Grassland; ▲ Tall Ruderals; ▲ Amenity Grassland; ▲ Intact Species-Poor Hedgerow; ▲ Fence; ▲ Buildings; ▲ Bare Ground; and ▲ Hardstanding. <p>Immediately off-Site to the north is an area of semi-natural broadleaved woodland surrounding a reptile receptor site, which has developed into dense scrub. The semi-natural broadleaved woodland continued along the eastern boundary, associated with Haverhill Railway Walks Local Nature Reserve (LNR). To the south-east was an industrial unit with associated hardstanding with the A1017 beyond, which continued south of the Site bordered by poor semi-improved grassland verges. To the west beyond Bumpstead Way (B1057) was further industrial development and agricultural land.</p> <p>Due to damage to the reptile fencing at the eastern boundary, the Site has potential for occasional reptiles to disperse onto it since they are known to occur immediately off-Site, however, there is considered inadequate cover for them to re-establish populations on the Site.</p> <p>An exposed earth bank in the west of the Site has potential to support a colony of sand martins, however, the rest of the Site did not offer suitable nesting habitat.</p> <p>The habitats bordering the Site offer suitable opportunities for species of birds and bats, as well as hedgehogs, but the Site offers limited habitat for these species.</p> <p>The exposed earth bank offers potential sett digging opportunities for badger known to occur within the wider area surrounding the Site, although no evidence of this species was recorded at the Site.</p>

<p>Requirement for Further Surveys</p>	<p>The findings of the initial Site assessment are considered sufficient to inform the development proposals and no further survey work regarding protected and priority species and habitats is deemed necessary at this time.</p>
<p>Construction and Operational Phase Recommendations and Enhancement Measures</p>	<p>The detailed recommendations set out within the Report are summarised below:</p> <p>Nesting Bird</p> <p>Site clearance works of bird nesting habitat should be performed either before early March or after late August to avoid the main bird nesting season. Conflict with the development can be avoided by clearing the Site of any suitable nesting habitat outside of the breeding period in advance of any proposed works; and</p> <p>If, however, Site clearance works are deemed necessary during the nesting period an experienced ecologist will be required to check the Site habitats prior to works commencing to confirm that no nesting birds will be affected by the proposed works.</p> <p>Reptiles</p> <p>It is recommended that a precautionary approach is taken during Site clearance works, and removal of the stockpile in the southern extent of the Site, and if any reptiles are found they should be moved to a safe place outside of the construction zone. Additionally, where possible, the grassland at the Site should be managed and maintained at a maximum sward height of 15 cm leading up to future development to discourage reptiles from using the Site if they are in the area.</p> <p>Bats</p> <p>The detailed lighting design on Site should be functional and directional and in line with current guidance. It should avoid excessive up-lighting and light spill. The vegetation retained or planted on Site should be unlit.</p> <div style="background-color: black; height: 50px; width: 100%;"></div> <p>Site Enhancements</p> <p>A list of recommendations to enhance the biodiversity of the Site are found in Section 6.0 of this Report.</p>
<p>This Preliminary Ecological Appraisal Executive Summary is intended as a summary of the assessment of the Site based on information received by Delta-Simons at the time of production. This Executive Summary should be read in conjunction with the full Report.</p>	

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1.0 Introduction

1.1 Purpose and Scope of the Survey

Delta-Simons Environmental Consultants Ltd was instructed by AJA Architects on behalf of Trebor Developments LLP ('the Client') to undertake a Preliminary Ecological Appraisal (PEA) of land to the east of Bumpstead Road, Haverhill in Suffolk (hereafter referred to as the "Site"). In addition, public land immediately surrounding the Site was surveyed, where access allowed. The survey was undertaken to inform a planning application for the construction of commercial units at the Site.

The aims of the PEA were to:

- ▲ Identify habitat types on the Site using the standard methodology devised by the Joint Nature Conservation Committee (JNCC, 2010);
- ▲ Identify areas of potential for protected species/ species of conservation concern within the Site and its immediate surroundings;
- ▲ Identify any invasive plant species included within Schedule 9 of the Wildlife and Countryside Act (WCA) 1981 (as amended);
- ▲ Prepare a Phase 1 Habitat Plan of the Site; and
- ▲ Propose recommendations for further surveys, where appropriate.

The Site location and the Site red line is shown in Figure 1.

1.2 Site Description

The Site is centred on Ordnance Survey (OS) grid reference TL 67908 44246, to the south of Haverhill in Suffolk. The Site covers an area of 8.6 hectares (ha) and is divided into two sections, to the north and south of Icen Way. The northern section comprises a large expanse of bare ground, with grassland edges, bordered by hedgerows, whilst the southern section is split into a smaller area of bare ground with hedgerows and a dry ditch present, and an MKM builder's yard comprising hardstanding and amenity grassland boundaries. The area surveyed included an area of woodland which bordered the Site to north, which also contained a balancing pond and area of scrub, with the roadside verge to the south of the Site also surveyed. The Site did not support standing water at the time of the survey, though an attenuation structure could be found immediately off-Site to the south.

Beyond woodland to the north is the town of Haverhill, whilst to the east is a former railway line and associated woodland with an industrial area beyond. To the south is the A1017 with arable land beyond, whilst to the west was the B1057 Bumpstead Road, with industrial units beyond.

The Site layout is shown in Figure 2.

1.3 Proposed Development

From the drawing provided by AJA Architects (6502-08 D – January 2018) we understand the proposed development comprises five industrial units with associated hard and soft landscaping, access roads and landscaping (see Figure 3).

2.0 Legislation & Policy Summary

Specific habitats and species of relevance to the Site receive legal protection in the United Kingdom under various pieces of legislation, including:

- ▲ National Planning Policy Framework (NPPF, 2019);
- ▲ The Conservation of Habitats and Species Regulations 2017;
- ▲ The Wildlife and Countryside Act (WCA) 1981 (as amended);
- ▲ The Countryside and Rights of Way (CRoW) Act 2000;
- ▲ The Natural Environment and Rural Communities Act (NERC) 2006;
- ▲ The Hedgerow Regulations 1997; and
- ▲ The Protection of Badgers Act 1992.

Where relevant, this appraisal takes account of the legislative protection afforded to specific habitats and species. The legislation surrounding each faunal or floral species or group is provided in Appendix A and references are included in Appendix B.

3.0 Methodology

The PEA has been undertaken to the following current guidance: CIEEM (2017), Guidelines for Preliminary Ecological Appraisal; and BS 42020: 2013 Biodiversity. Code of Practice for Planning and Development.

3.1 Desk Study

Data search

A data search was undertaken to identify statutory and non-statutory designated sites and records of protected and notable species.

In March 2019 available records of protected and notable species were collated from the local record centres, the Suffolk Biodiversity Information Centre (SBIS) and the Essex Wildlife Trusts Biological Records Centre (EWTBRC) along with the non-statutory designated sites within a 2 km radius of the Site centre. A search for international statutory designated sites for nature conservation within 6 km of the Site was undertaken, together with a search for national statutory designated sites for nature conservation within 2 km of the Site centre, using the Multi-Agency Geographic Information for the Countryside (MAGIC) website.

In addition, free and publicly accessible Ordnance Survey maps and aerial photographs were searched for waterbodies on, or within, 500 m of the Site boundary. This information has been used to assess the Site for its potential for amphibians, the results of which are found in Section 4.3.

Review of Previous Surveys

Where available, information was gathered on any previous ecological surveys that have been conducted at the Site. The following survey reports were reviewed:

- ▲ Extended Phase 1 Habitat Survey, Haverhill Business Park, March 2015, Delta-Simons Project No. 15-0210.01;
- ▲ Reptile Survey Report, Haverhill Business Park, August 2015, Delta-Simons Project No. 15-0210.05; and
- ▲ Reptile Translocation Report, Haverhill Business Park, November 2015, Delta-Simons Project No. 15-0210.05.

3.2 Survey

The habitats on the Site and immediately off-Site, were surveyed on Friday 22nd March by a Delta-Simons ecologists. Since access was not permitted to the surrounding land, it was visually assessed from the Site boundary.

The following was undertaken during the survey:

- ▲ Habitats were classified and mapped using the standard JNCC Phase 1 habitat methodology (JNCC, 2010). Dominant plant species were recorded in each different habitat. The plant species nomenclature followed that of Stace (2019);
- ▲ Terrestrial habitats on-Site were surveyed for the presence of, or potential for the following protected or notable species:
 - ▲ Birds: All species with special reference to key species (such as those on Schedule 1 of the WCA, 1981 (as amended), England Biodiversity Priority Species (EBP) (previously UK Biodiversity Action Plan (UKBAP) species) and Birds of Conservation Concern (BoCC) (Eaton et al., 2015);
 - ▲ Amphibians: Great Crested Newt (GCN) *Triturus cristatus*;
 - ▲ Reptiles: common lizard *Zootoca vivipara*, adder *Vipera berus*, slow worm *Anguis fragilis* and barred grass snake *Natrix Helvetica*; and
 - ▲ Mammals: bat (all species) [REDACTED]

- ▲ Widespread terrestrial and aquatic invasive species listed on Schedule 9 of the WCA 1981 (as amended) were recorded. These are Japanese knotweed, *Fallopia japonica* giant knotweed *Fallopia sachalinensis* hybrid knotweed, *Fallopia baldschuanica*, giant hogweed *Heracleum mantegazzianum*, Himalayan balsam *Impatiens glandulifera*, and New Zealand pygmyweed *Crassula helmsii*.

3.2.1 Birds

Visual and/ or audible identification was made of any birds on the Site or flying over the Site during the survey period. Suitable habitat was, where possible, inspected and any evidence of old nesting activity was recorded.

3.2.2 Amphibians

The terrestrial habitats at the Site were assessed for their potential to support amphibian species and a desk search was undertaken (see Section 3.1). Where access allowed, a GCN HSI assessment was carried out to evaluate the suitability of the waterbodies and their adjoining habitats for GCNs (Oldham et al., 2000). The calculated HSI score for a pond scores between 0 and 1, and is derived from an assessment of ten habitat variables known to influence the presence of newts. The HSI is categorised such that the closer to a score of 1 it is then the more suitable a pond is to support GCNs. The HSI is calculated on an individual pond basis, but takes into account surrounding terrestrial habitat and local pond density. Table 1 illustrates the categorisation of HSI scores.

Table 1: Categorisation of HSI Scores

HSI Score	Pond Suitability for GCN
< 0.5	Poor
0.5 - 0.59	Below average
0.6 - 0.69	Average
0.7 - 0.79	Good
>0.8	Excellent

3.2.3 Reptiles

A cold-searching method was employed which involved identifying suitable habitats for reptiles within areas on-Site and immediately off-Site. Natural and artificial refugia (logs, large debris and so on) were lifted and examined for the presence of reptiles and their field signs (such as shed skins).

Suitable habitats for reptiles were identified within areas on-Site. Since reptiles are currently hibernating, natural and artificial refugia (logs, large debris etc.) were not checked beneath for the presence of reptiles.

3.2.4 Bats

The Site was assessed for its suitability to support roosting and foraging bats (see Appendix C).

3.2.6 Otters

Suitable habitats for otter on-Site and immediately off-Site were identified and assessed.

3.2.7 Water Voles

Suitable habitats for water vole on-Site and immediately off-Site were identified and assessed.

3.2.8 Other Protected or Notable Species

Where applicable, during the survey, evidence was recorded of any other protected or notable species, including England Biodiversity Priority (EBP) species. Habitats with the potential to support additional protected or notable species were also recorded, if present, during the survey.

3.2.9 Invasive Species

The occurrence of any invasive plant species on the Site was identified in terms of species and stand size.

3.2.10 Limitations to the Survey

The survey was undertaken during the sub-optimal time of year for identifying plant species on the Site. However, as the majority its area is bare ground this is not considered to be a constraint to the appraisal.

There were no limitations to the survey in terms of access, timing and weather conditions.

The baseline conditions described in this report were accurate at the time at which the survey was undertaken. Should at least two years pass by, and/or conditions on-Site/ Site usage change prior to the commencement of works, an update survey should be undertaken.

4.0 Results

4.1 Desk Study

The pertinent information from the data search is set out below for designated sites, whilst species are discussed in the relevant species sections. Full results of the SBIS and EWTBRC data search are available to the Client on request.

Designated Sites

The results of the MAGIC data search and the SBIS and EWTBRC desk search indicate that there are no internationally designated sites within 6 km of the Site and one statutory designated site within 2 km of the Site centre, Haverhill Railway Walks Local Nature Reserve (LNR), which lies adjacent to the eastern boundary of the Site. There are six non-statutory designated sites (three County Wildlife Sites, CWS; and three Local Wildlife Sites, LWS) within 2 km of the Site, furthermore, the Site does not fall within any Site of Special Scientific Importance (SSSI) Impact Risk Zones (IRZ).

Table 2: National Statutory and Non-Statutory Designated sites within 2 km of the Site centre

Site Name	Designation	Distance and Direction from Site Boundary	Designation Criteria Summary
Haverhill Railway Walks	LNR	Adjacent, east	With much of its length now covered with scrub and larger trees, the railway provides a valuable wildlife corridor. It offers food and shelter to a wide range of birds, animals, insects and plants. All five kilometres (3 miles) of the disused line are part of the LNR.
Bumpstead Road Grasslands	CWS	Adjacent, north	This small CWS is located between the disused railway line and Bumpstead Road on the southern edge of Haverhill. The site comprises an area of neutral/chalky grassland which supports a wide range of flowering plants. Due to a number of years of neglect, scrub is becoming established throughout the site. This CWS is a valuable component of the extensive wildlife corridor formed by the railway walk and its associated habitats.
Haverhill Disused Railway Line	CWS	475 m north-east	Haverhill disused railway line runs NW to SE through the centre of Haverhill. For most of its length the former railway comprises areas of dense species-rich, native scrub, interspersed with small patches of unimproved grassland which support a variety of flowering plants. The mosaic of habitats on site supports a good range of wildlife and it is particularly important for reptiles and breeding birds. Two species, namely common lizard <i>Zootoca vivipara</i> and slow-worm <i>Anguis fragilis</i> are known to inhabit the railway walk which is a valuable link between other important reptile sites in the town, including the Broad Street Allotment CWS (CWS).

Site Name	Designation	Distance and Direction from Site Boundary	Designation Criteria Summary
Bra14 Greatley Wood	LWS	490 m south	The canopy of this wood comprises mainly Ash <i>Fraxinus excelsior</i> and Pedunculate Oak <i>Quercus robur</i> with Field Maple <i>Acer campestre</i> in the sub-canopy. The scrub layer is typified by Elder <i>Sambucus nigra</i> , Hawthorn <i>Crataegus monogyna</i> and Midland Hawthorn <i>Crataegus laevigata</i> . The varied ground flora includes Bluebell <i>Hyacinthoides non-scripta</i> , Yellow Archangel <i>Lamiastrum galeobdolon</i> , Dog's Mercury <i>Mercurialis perennis</i> and Hairy St. John's-wort <i>Hypericum hirsutum</i> .
Bra13 Garlands Wood	LWS	760 m south	Possible ancient woodland, no further information provided.
Bra18 Bex Grove	LWS	995 m south-east	Possible ancient woodland, no further information provided.
Broad Street Old Allotments	CWS	1.8 km north	This disused allotment site is situated in the northern part of Haverhill immediately to the south of the disused railway line which runs through the town. A small watercourse and mature hedge border the western edge of the site. The land is managed by the owners to attract and provide suitable habitats for many kinds of wildlife. The site is particularly important for the reptile populations which it supports. Slow-worms are known to shelter and breed in high numbers, with common lizard and grass snake <i>Natrix natrix</i> also recorded. Between the planted areas, a mosaic of unmanaged grassland, scrub and closely mown paths provide suitable habitat for a high diversity of small mammals and breeding birds. Several small ponds scattered over the site provide suitable conditions for breeding toads and frogs. This site undoubtedly provides a valuable refuge for a wealth of wildlife, particularly reptiles, in an otherwise built up area.

Review of Previous Surveys

- ▲ Delta Simons undertook an Extended Phase 1 Habitat Survey of a larger area at Haverhill Business Park in March 2015, which included six separate plots prior to a planning application being submitted for the site. At this time the north of the current Site featured established habitats, comprising semi-improved grassland and encroaching scrub, with ponds also recorded. The report recommended reptile surveys, as the Site had previously been subject to a reptile translocation programme; however the fence that restricted reptiles from returning to the Site was considered defunct, with a high possibility of their presence on-Site.
- ▲ In June and July 2015, Delta-Simons undertook a reptile survey of the Site. The survey found a “Low” population of slow worms, with a peak count of eight, and a “Low” population of common lizard, peak count of five. One grass snake was also recorded. The report recommended further reptile translocation work covering the area due to be developed, with repair work to the exclusion fencing and scrub clearance of the receptor site prior to undertaking the translocation.
- ▲ Between August and October 2015, Delta Simons carried out the reptile translocation proposed above, following pre-commencement works including fence repair and restoration of the receptor site. In total, 152

slow worms, 21 common lizards and two grass snake were caught and translocated into the receptor site. The report recommended regular maintenance and monitoring checks of the reptile fence to ensure it stayed fit for purpose throughout the development, as well as annual management within the receptor site to control scrub growth. Monitoring of the reptile population was also recommended in years 1, 2 and 5 following the completion of the proposed development. Finally, vegetation clearance across the Site was recommended to ensure that reptiles do not disperse onto those areas from off-Site habitats.

4.2 Survey

4.2.1 Habitats on Site

The Site is characterised by a large expanse of bare ground with grassland edges, bordered by hedgerows. Woodland and scrub is found off-Site to the north and east. The Site did not support standing water at the time of the survey, though an attenuation structure could be found immediately off-Site to the south.

Figure 2 shows the extent of habitat types and boundary features. Descriptions of the habitat types and dominant plant species found at the Site are provided below. Habitat descriptions are by broad habitat type, as listed in the Phase 1 Habitat Survey Manual (JNCC, 2010). Target Notes (TNs) are listed under Appendix D whilst photographs of the Site survey are located in Appendix E.

Habitats recorded on Site are:

Poor Semi-Improved Grassland

Bordering the expanses of bare ground that defined the northern section of the Site. The species composition was dominated by annual meadow grass *Poa annua*, cock's-foot *Dactylis glomerata* and perennial ryegrass *Lolium perenne* with frequent coltsfoot *Tussilago farfara* and occasional wild teasel *Dipsacus fullonum*, dandelion *Taraxacum officinale*, bristly ox-tongue *Picris echioides*, creeping thistle *Cirsium arvense*, willowherb *Epilobium* sp. and common nettle *Urtica dioica*.

Tall Ruderals

Recorded occasionally across the Site, encroaching onto Site from the boundaries and were dominated by common nettle. An area of tall ruderals was developing in the southern extent of the Site atop at stockpile (TN1).

Amenity Grassland

Two strips of amenity grassland (roadside verges) were recorded on-Site, on the western boundary with Bumpstead Road and alongside Icen Way between the two sections of the Site. The species were dominated by perennial ryegrass, with abundant red fescue *Festuca rubra*, frequent red clover *Trifolium pratense*, common dandelion and occasional ribwort plantain *Plantago lanceolata*.

Intact Species-Poor Hedgerow

Two species-poor hawthorn *Crataegus monogyna* dominant hedgerows were recorded running adjacent to Icen Way, bisecting the two sections of the Site.

Fence

Security fencing was surrounding the Site, in addition to wooden post and rail fencing in the north-western extent of the Site. Reptile mitigation fencing (Photograph 4) was intact on the northern boundary, but damage was present at two points along the eastern boundary (TN2, TN3; example shown in Photograph 5), following on from previous translocation works carried out by Delta-Simons (Project No. 15-0210.05).

Earth Bank

A large bare earth bank was present on the western boundary with a single aspect facing north-west. Large parts of the bank had slipped, exposing the sub-soil (TN4; Photograph 6). The bank was in excess of 10 m high, approximately, with poor semi-improved grassland atop and beneath.

Buildings

A single recently constructed building associated with MKM builders' merchants could be found within the south-western corner of the Site.

Bare Ground

The majority of the northern section of the Site were defined by an expanse of bare ground (Photograph 1). Additionally, the eastern extent of the southern section was largely bare ground, with grassland and ruderals encroaching (Photograph 2).

Hardstanding

The majority of the hardstanding on-Site was associated with Icen Way and associated tarmacadam footpaths. A large area of hardstanding could be found in the south-west corner of the Site, associated with MKM Builders Yard.

4.2.2 Habitats immediately surrounding the Site

Immediately off-Site to the north was an area of semi-natural broadleaved woodland surrounding the reptile receptor site, which had developed into dense scrub. Beyond this was a strip of scattered coniferous trees surrounding an attenuation structure, with residential properties beyond. The semi-natural broadleaved woodland continued along the eastern boundary, associated with Haverhill Railway Walks LNR. To the south-east was an industrial unit with associated hardstanding and the A1017 beyond, which continued south of the Site bordered by poor semi-improved grassland verges. In addition, a fenced attenuation structure with two depressions surrounding by poor semi-improved grassland, encroaching scrub and ruderals could be found immediately off the southern boundary. Bumpstead Road could be found to the west with a continuation of industrial land beyond.

4.3 Notable and Protected Species Assessment Relevant to the Site

Birds

Records for nine species of birds currently listed on Schedule 1 of the WCA (1981, as amended) were recorded within 2 km of the Site centre in the past ten years, of which four species of raptors which may use the habitats found on-Site for hunting include kestrel *Falco tinnunculus*, red kite *Milvus milvus*, Eurasian hobby *Falco subbuteo*, and barn owl *Tyto alba* which was recorded 250 m south of the Site. Black redstart *Phoenicurus ochruros* was recorded 900 m north-west of the Site and is known to frequent Industrial landscapes. A further 18 species of birds currently listed on the BoCC4 Red List (Eaton et al., 2015), were recorded within 2 km of the Site in the past ten years, though the majority were associated with woodland and farmland habitats. However, nightingale *Luscinia megarhynchos* has been recorded in the area and could favour habitats immediately off-Site such as the woodland and scrub to the north. No species listed on the Local Biodiversity Action Plans (LBAP) for Suffolk or Essex were recorded within 2 km of the Site in the past ten years.

Habitats featured on the Site suitable for nesting birds were limited as the Site had been cleared in recent years, however, an exposed earth bank on the western boundary of the Site could offer nesting potential for sand martins *Riparia riparia*. Habitats immediately off-Site offer higher suitability for nesting birds, with the woodland edge along the northern and eastern boundaries. No bird nesting activity was observed at the time of the inspection.

No birds listed on Schedule 1 or those listed on the Red List of BoCC4 were recorded. It should be noted that this is not a comprehensive inventory of the bird species which may be present at the Site.

Great Crested Newts

There were no records of GCN within 2 km of the Site centre in the past ten years returned by either data search. A review of aerial photographs and OS maps revealed that there are six ponds within 500 m of the Site. Two of which were within the attenuation structure (Photograph 3) immediately off-Site to the south (both almost dry and not suitable for GCN breeding), with a further four ponds associated with Copse Hall Farm approximately 250 m south-west of the Site. An additional attenuation structure to the north of the Site held no open water and was not suitable to support breeding GCNs. Suitability of terrestrial habitats on-Site was poor, with large expanses of bare ground separated by hardstanding and minimal vegetation for cover, all of which severely limit distribution opportunities for amphibians. Thus, this species is not considered a constraint to development.

Reptiles

Records for reptiles were minimal, with two records of common lizard, two records of grass snake and one record of slow-worm within 2 km of the Site in the past ten years. However, the receptor site adjacent to the northern boundary of the Site is known to support a large slow-worm population (152 individuals translocated), and a moderate common lizard population (25 individuals translocated), and a low grass snake population, but given the open nature of the Site, and the lack of a habitat mosaic which reptiles prefer, including sheltering opportunities, especially in the east where reptile fence damage was noted, there is limited potential for reptiles on-Site.

Bats

There were 42 records of bats within 2 km of the Site centre in the past ten years, consisting of seven species including brown long-eared *Plecotus auritus*, western barbastelle *Barbastella barbastella*, serotine *Eptesicus serotinus*, noctule *Nyctalus noctula*, common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, and Nathusius' pipistrelle *Pipistrellus nathusii*. Five records of undeterminable bat species were also provided by the data search.

No habitats on-Site were suitable for foraging or commuting bats, given its open nature and the lack of vegetated or aquatic corridors, though the woodland edge habitats found immediately off-Site to the north and east offer foraging, commuting and potential roosting opportunities for bats. The Haverhill Railway Walks LNR offers connectivity to the wider landscape and bats were recorded on parts of the linear site.

Otters

Two records of European otter *Lutra lutra* were returned from within 2 km of the Site centre in the past ten years, both associated with Haverhill Railway Walks LNR, 390 m north of the Site. However, the areas of the LNR where the species were recorded had waterways in close proximity, which are not present on-Site or immediately off-Site, such that the species are not thought to be a constraint at the Site and are not considered further in this Report.

Water Voles

One record of water vole *Arvicola amphibius*, was returned by the data search and was also associated with waterbodies associated with Haverhill Railway Walks LNR, 390 m north of the Site. No habitats on-Site are suitable for the species and they are not considered further in this Report.

Other Protected Species

There were 37 records of west European hedgehog *Erinaceus europaeus*, within 2 km of the Site centre in the past ten years, the closest of which was recorded in the area of woodland immediately off-Site to the north. The majority of records were associated with residential gardens within the town of Haverhill. Habitats suitable for the species on-Site were rare due to a lack of cover though the Haverhill Railway Walks LNR offers commuting and foraging habitats for the species.

Two records of harvest mouse *Micromys minutus*, were recorded within 2 km of the Site centre in the past ten years, the closest of which was 490 m east of the Site. Whilst there are grassland margins around part of the Site, the grassland is not tussocky enough to provide suitable habitat for this species though more suitable habitat may be found off-Site within the Haverhill Railway Walks LNR, which also offers connectivity to the wider landscape for the species.

One record of hazel dormouse *Muscardinus avellanarius* was also returned by the data search, 1.5 km north-east of the Site, within an area of woodland adjacent to arable farmland. The adjacent off-Site habitats have potential to support hazel dormouse, with good foraging, nesting and commuting opportunities.

Invasive Species

Five records of Japanese knotweed *Fallopia japonica* within 2 km of the Site centre in the past ten years were provided from the data centre, three of which were approximately 400 m from the Site, to the north and east. No evidence of knotweed was recorded on-Site during the survey, such that it is not thought to be a constraint at the Site and is not considered further in this Report. No other widespread invasive weeds were recorded at the time of the survey.

5.0 Evaluation

Designated sites-statutory sites/non-statutory sites

Haverhill Railway Walks LNR is the only statutory designated site within 2 km of the Site centre, and is the closest designated site along with Bumpstead Road Grasslands CWS which both border the Site. The LNR functions as a wildlife corridor to a range of species of birds, mammals, reptiles, invertebrates and plants. The proposed development should safeguard both of these sites to protect them and, as such, a landscape buffer is proposed along the eastern edge of the development.

A further five non-statutory designated Sites were recorded within 2 km of the Site centre, two of which were associated with or adjacent to parts of Haverhill Railway Walks LNR, whilst the remaining were designated for potential ancient woodland habitat, a habitat which is not present on-Site. It is not anticipated that the development will have an adverse impact on these sites.

Habitats

The Site lacks ecologically important habitats given previous site clearance works, reducing much of the Site to bare ground. The surrounding landscape is largely developed as industrial land and the current nature of the Site presents potential to increase the ecological value of the surrounding area. The most important habitats are found immediately off-Site to the north and east, with woodland edge habitat offering potential nesting, foraging, roosting and commuting opportunities for a range of species. The development proposals feature extensive landscaping and planting for the Site, however, there is potential for further enhancement and habitat creation, especially with regards to reptiles, such as artificial refugia and ponds. The planting strategy should include native species of trees and shrubs with nectar and fruit to provide foraging opportunities to further enhance the biodiversity of the Site.

Species

Despite the lack of vegetation, species of birds, reptiles, bats and other mammals will potentially be impacted by the development, in particular during the construction phase of the development. The disruption caused by developing the Site could impact on species using the adjacent designated sites, such that appropriate management plans will be required to mitigate for this.

Whilst opportunities on-Site are limited, reptiles, though previously translocated off the Site, may occur on-Site on occasion. Damage to reptile fencing has been recorded potentially allowing them to disperse onto the Site from the east, however, given that any cover is poor, it is considered unlikely that they would inhabit the Site such that with appropriate working methodologies in place during vegetation clearance, no further mitigation would be required.

Bats could use the adjacent woodlands for roosting, foraging and commuting. However, as no trees bordering the Site were noted to have bat roosting potential, it is unlikely that the development will directly impact roosting bats. A precautionary approach should be undertaken with a directional lighting plan put in place to limit light spill onto adjacent woodland, both during the construction and operational phases.

A range of mammals, including [REDACTED] hedgehog have been recorded locally, and though no signs of the species were recorded during the survey, it is possible that [REDACTED] onto the Site such that a precautionary approach should be taken during Site clearance and construction.

Generally, the Site has potential to increase its ecological value to a range of protected species, and whilst the development proposals offer insight into landscaping, it could be further developed to enhance the Sites value to protected species.

6.0 Recommendations

6.1 Further Survey Requirement

The findings of the initial Site assessment are considered sufficient to inform the development proposals and no further survey work regarding protected and priority species and habitats is deemed necessary at this time.

6.2 Construction and Operational Phase Protection/Enhancement Measures

Species Protection

Birds

- ▲ Clearance of bird nesting habitat should be performed either before early March or after late August to avoid the main bird nesting season. Conflict with the development can be avoided by clearing the Site of any suitable nesting habitat outside of the breeding period in advance of any proposed works; and
- ▲ If, however, Site clearance works are deemed necessary during the nesting period an experienced ecologist will be required to check the Site habitats prior to works commencing to confirm that no nesting birds will be affected by the proposed works.

Reptiles

- ▲ It is recommended that a precautionary approach is taken during vegetation clearance works such that it is undertaken under the supervision of a suitably qualified ecologist, as should the removal of the stockpile in the southern extent of the Site, and if any reptiles are found they will be moved to a safe place outside of the construction zone.
- ▲ Additionally, where possible, the grassland at the Site should be managed and maintained at a maximum sward height of 15 cm (lower if possible) leading up to future development to discourage reptiles from using the Site if they are in the area.

Bats

- ▲ The detailed lighting design on Site should be functional and directional and in line with current guidance (BCT, 2009; BCT, 2014; Stone, E.L. (2013)). It should avoid excessive up-lighting and light spill. The vegetation retained or planted on Site should be unlit.

Site Protection

All works on Site should follow an appropriate working methodology to avoid inadvertent damage to any habitats and associated fauna retained on, or surrounding, the Site. This includes the following:

- ▲ All works should be undertaken in accordance with the UK governments 'Pollution Prevention for Business's' guidance (www.gov.uk).
- ▲ Where works will impact protected and notable species of flora and fauna a suitable method statement should be incorporated into the Site Construction Environmental Management Plan (CEMP).
- ▲ The PDP shows a buffer between the eastern boundary of the Site and Unit 1, which will help to limit disturbance onto Haverhill Railway Walks LNR, however further planting and a lighting strategy on the eastern aspect of Unit 1 could further mitigate against potential disturbance.

General Site Enhancement

Following the issue of the NPPF (2019), by the Ministry of Housing, Communities and Local Government, *“Planning policies and decisions should contribute to and enhance the local environment by (d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures...”*; and, therefore, we recommend the following principles of design should be followed:

- ▲ Planting should aim to enhance retained or adjacent vegetation, in particular the woodland edge to the north and east of the Site, and be of native species, or those of known value to wildlife, sourced from local nurseries to enhance foraging opportunities for local birds and bats, by increasing the invertebrate diversity on-Site. It is recommended that where trees are planted, they have a functional understorey. A species list of recommended trees and shrubs is provided in Appendix F;
- ▲ The proposed landscape buffer along the eastern boundary of the Site should be planted with native dense shrub and scrub species to ensure that it is functional;
- ▲ Additional landscape features could be incorporated into the proposals, such as wildlife ponds, log piles or artificial refugia which would further enhance the Sites ecological value within the surrounding landscape; and
- ▲ Installation of bird nest boxes, including swift bricks and sparrow boxes, on units to be constructed around the Site, or attached to office blocks at the appropriate height and orientation. Delta-Simons can provide further advice on the type and locations of bird and bat boxes for the Site as necessary.

7.0 Disclaimer

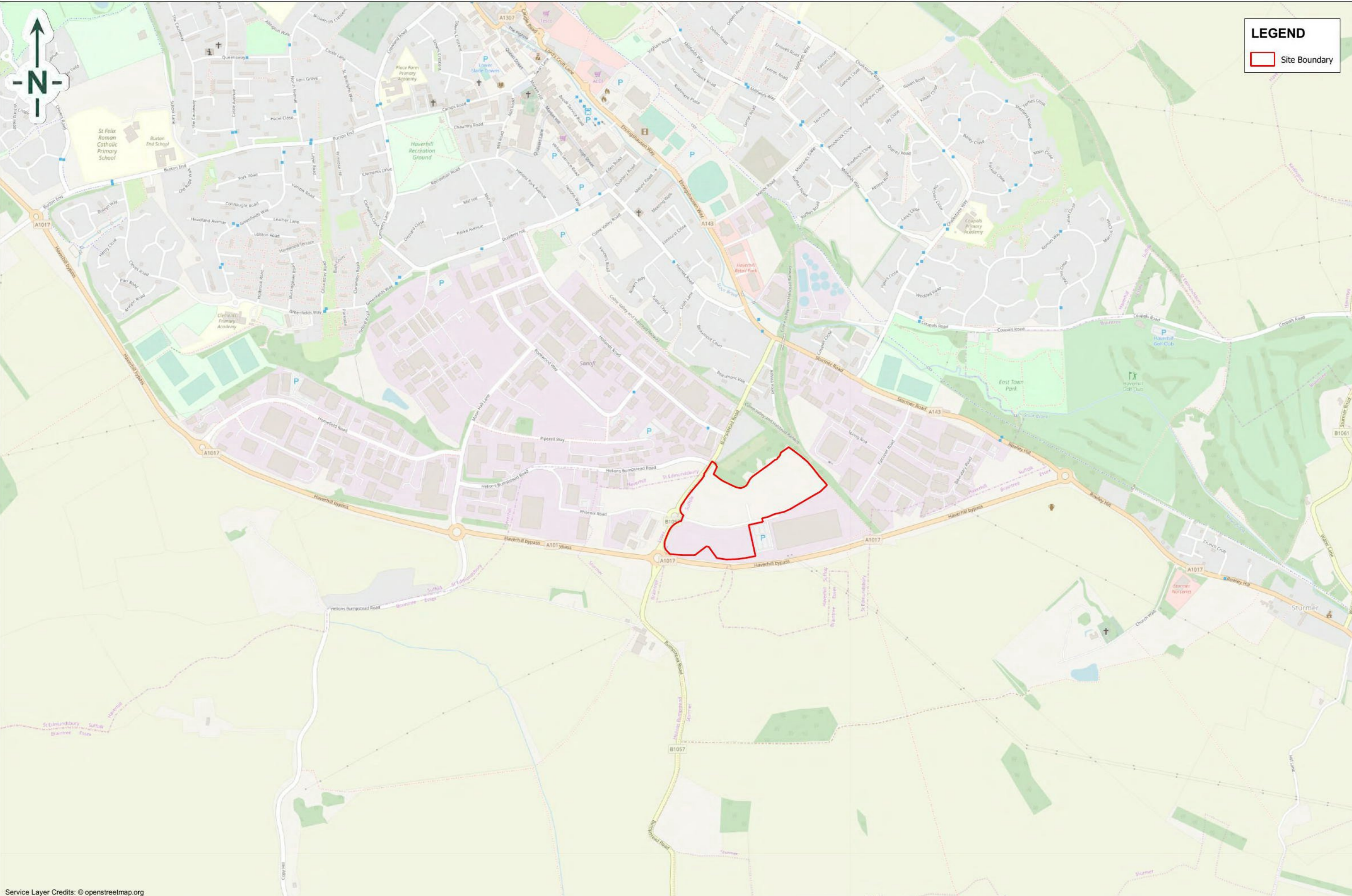
The recommendations contained in this Report represent Delta-Simons' professional opinions, based upon the information referred to in Section 1.0 of this Report, exercising the duty of care required of an experienced Ecology Consultant. Delta-Simons does not warrant or guarantee that the Site is free of Bats or other protected species.

The behaviour of animals can be unpredictable and may not conform to characteristics recorded in current scientific literature. This Report, therefore, cannot predict with absolute certainty that animal species will or will not occur in apparently suitable locations or habitats or that they will not occur in locations or habitats that appear unsuitable.

No part of the survey included an assessment of the materials and conditions of any buildings. No part of the survey included an asbestos assessment, nor did it represent an appraisal of other deleterious materials or hazardous substances.

This Report was prepared by Delta-Simons for the sole and exclusive use of the Client and for the specific purpose for which Delta-Simons was instructed as defined in Section 1.0 of this Report. Nothing contained in this Report shall be construed to give any rights or benefits to anyone other than the Client and Delta-Simons, and all duties and responsibilities undertaken are for the sole and exclusive benefit of the Client and not for the benefit of any other party. In particular, Delta-Simons does not intend, without its written consent, for this Report to be disseminated to anyone other than the Client or to be used or relied upon by anyone other than the Client. Use of the Report by any other person is unauthorised and such use is at the sole risk of the user. Anyone using or relying upon this Report, other than the Client, agrees by virtue of its use to indemnify and hold harmless Delta-Simons from and against all claims, losses and damages (of whatsoever nature and howsoever or whomsoever arising), arising out of or resulting from the performance of the work by the Consultant.

Figure 1 – Site Location Map



LEGEND

Site Boundary

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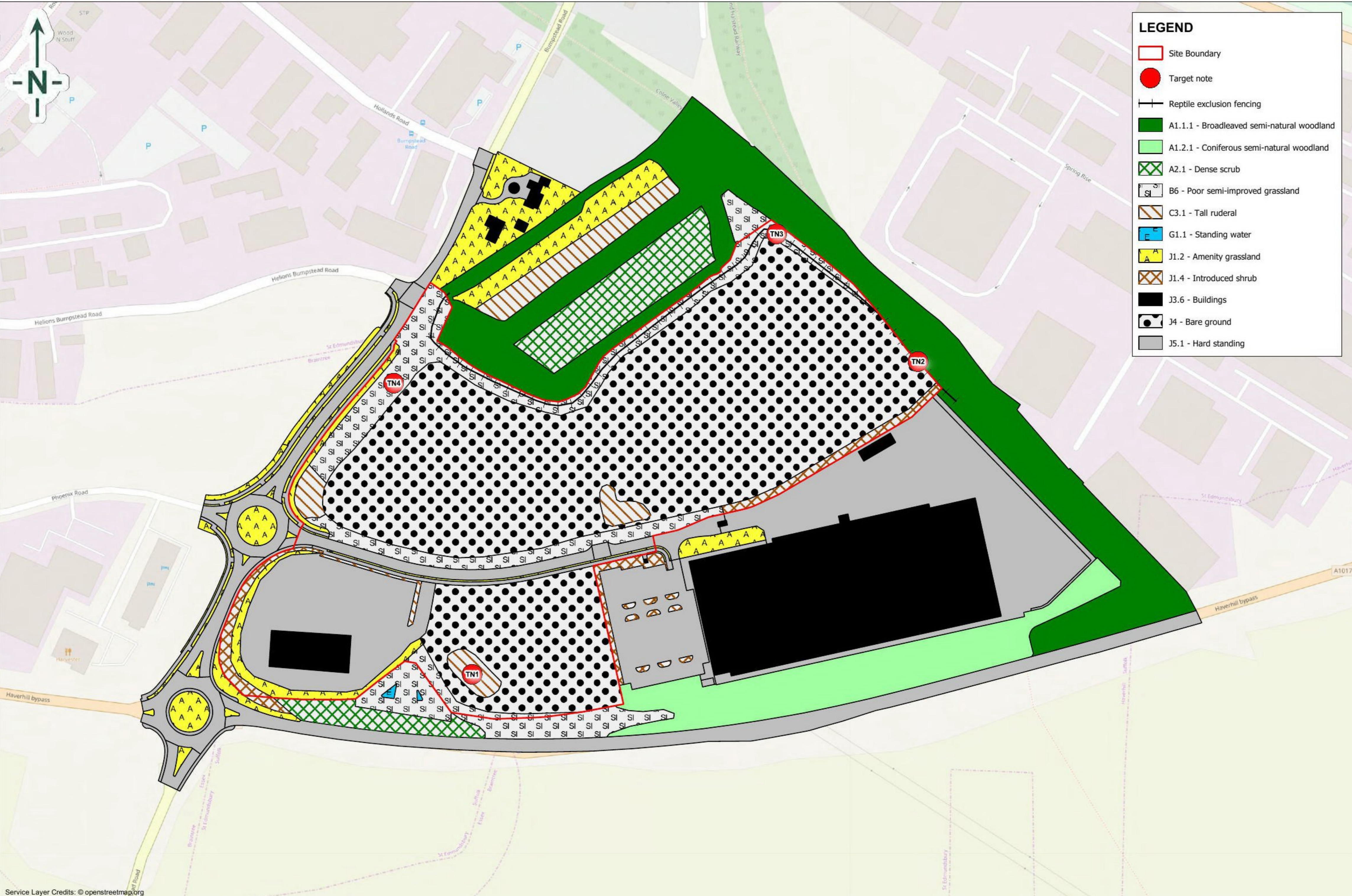


TITLE:
 Site Location Map
 Trebor Developments
 Haverhill Business Park

DRAWN BY: CD	SCALE (@A3): 10,000	PROJECT NO: 19-0446.01
CHECKED BY: PJ	REVISION: 1	FIGURE NO: 1
DATE: 03 April 2019		

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Figure 2 – Phase 1 Habitat Plan



LEGEND

- Site Boundary
- Target note
- Reptile exclusion fencing
- A1.1.1 - Broadleaved semi-natural woodland
- A1.2.1 - Coniferous semi-natural woodland
- A2.1 - Dense scrub
- B6 - Poor semi-improved grassland
- C3.1 - Tall ruderal
- G1.1 - Standing water
- J1.2 - Amenity grassland
- J1.4 - Introduced shrub
- J3.6 - Buildings
- J4 - Bare ground
- J5.1 - Hard standing

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TITLE:
Phase 1 Habitat Plan
Trebor Developments
Haverhill Business Park

DRAWN BY: CD	SCALE (@A3): 2,250	PROJECT NO: 19-0446.01
CHECKED BY: PJ	REVISION: 1	FIGURE NO:
DATE: 03 April 2019		2

Figure 3 – Proposed Development Plan



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 3. This drawing is for informational purposes only and does not constitute a contract.
 4. The client is responsible for obtaining all necessary planning and building regulations.
 5. The client is responsible for obtaining all necessary planning and building regulations.

Unit	Office GF	Office FF	Warehouse	Total	sq.m.	sq.ft.
Unit 1	64	286	5,664	6,014	64,734	698
Unit 2	64	152	3,820	4,036	43,442	688
Unit 3	64	228	4,476	4,768	51,321	688
Unit 4	80	1,054	1,133	1,133	12,195	861
Unit 5	64	210	4,136	4,410	47,468	688
Total Build				20,361	219,160	
Site Area				5.60	13.85	
Density				Gross 36.3%	Nett 37.3%	

- D: 28.02.19 offices to Unit 3 moved
- C: 20.02.19 blue line legal site boundary
- B: 25.01.19 Hand Unit 4 - Mooring parking / road, CoeM
- A: 18.01.19 Indicate footpath link, CoeM



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Haverhill Business Park
 Icen Way
 Haverhill
 CB9 7AE

Proposed Site Plan

scale: 1:1000(A1) drawn: CoeM
 checked: PJ date: January 2019

6502-08 D

Mapping provided by the Client



TITLE:
 Proposed Development Plan
 Trebor Developments
 Haverhill Business Park

DRAWN BY: CD	SCALE (@A3): Not to scale	PROJECT NO: 19-0446.01
CHECKED BY: PJ	REVISION: 1	FIGURE NO: 3
DATE: 03 April 2019		

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Appendix A – Relevant Legislation

Relevant Legislation

National Planning Policy Framework

The revised National Planning Policy Framework (NPPF), sets out, amongst other points, how 'Planning policies and decisions should contribute to and enhance the natural and local environment by:

"Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity..."

The National Planning Policy Framework (NPPF), advises that ecological surveys are undertaken before planning permission is determined. It sets out, amongst other points, how at an overview level the 'planning system should contribute to and enhance the national and local environment by:

The NPPF states that this should be achieved through local planning development frameworks and gives recommendations for criteria based policies which recognise the hierarchy of designated sites which range from internationally important habitat, to sites of importance at a local level and ensure that protection is *"in a manner commensurate with their statutory status or identified quality in the development plan."*

A list of principles which local planning authorities should follow when determining planning applications is included in the NPPF:

- ▲ *"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;*
- ▲ *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 reasons¹ and a suitable compensation strategy exists;*
- ▲ *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; and*
- ▲ *Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity."*

It is also worth noting that where there are potential impacts upon internationally designated sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites) as a result of a proposed development, *"The presumption in favour of sustainable development does not apply where development requiring appropriate assessment because of its potential impact on a habitats site is being planned or determined."*

In addition, the Office of the Deputy Prime Minister circular 06/ 2005 remains current. It states that *'The presence of a protected species is a material consideration when a planning authority is considering a development proposal'. The circular advises that local authorities should consult Natural England before granting planning permission if the proposals could adversely affect a protected species.'*

The Conservation of Habitats and Species Regulations 2017

The Conservation of Habitats and Species Regulations 2017 are the British response to the Habitats & Species Directive 1992, and consolidate all the various amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994 in respect of England and Wales. The 1994 Regulations transposed Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law.

¹ For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat.

The Regulations for the protection of European Protected Species (EPS) have been amended and consolidated with key changes including the removal of most of the defences from Regulation 40 and Regulation 43 including the removal of the 'incidental result of an otherwise lawful operation' defence, and the increase in the threshold for the offence of deliberately disturbing a EPS. Proposals that will affect European protected species may require a licence from Natural England to allow an otherwise unlawful act. In the 2009 a new offence of 'breaching condition of an EPS licence' was added to the regulations. The licensing process is separate from and planning process. European protected species include all species of bats, great crested newt *Triturus cristatus*, dormouse *Muscardinus avellanarius*, and European otter *Lutra lutra*, amongst others.

The Wildlife and Countryside Act (WCA) 1981 (as amended)

This is the primary legislation covering endangered species in England and sets out the framework for the designation of Sites of Special Scientific Interest (SSSIs). It confers differing levels of protection on species themselves, their habitats or both depending on their conservation status. Species offered protection by the Act are listed in a series of schedules. These Schedules are subject to a rolling review every five years. Protected species are listed under Section 1 (birds), Schedule 5 (animals other than birds and invertebrates) and Schedule 8 (plants).

The Countryside and Rights of Way (CRoW) Act 2000

The CROW Act, introduced in England and Wales in 2000, amends and strengthens existing wildlife legislation detailed in the WCA. It places a duty on government departments and the National Assembly for Wales to have regard for biodiversity, and provides increased powers for the protection and maintenance of SSSIs.

The Act also contains lists of habitats and species (Section 74) for which conservation measures should be promoted, in accordance with the recommendations of the Convention on Biological Diversity (Rio Earth Summit) 1992.

The Natural Environment and Rural Communities (NERC) Act 2006

Section 40 of the NERC Act places a duty upon all local authorities and public bodies in England and Wales to promote and enhance biodiversity in all of their functions. Section 41 (England) list habitats and species of principal importance to the conservation of biodiversity in England. These species and habitats are a material consideration in the planning process.

The Hedgerow Regulations 1997

Under the Hedgerow Regulations 1997, it is against the law to remove or destroy certain hedgerows without permission from the local authority.

Local planning authority permission is required before removing hedges that are at least 20 metres (66 feet) in length more than 30 years old and contain certain species of plant. The authority will assess the importance of the hedgerow using criteria set out in the regulations.

Species

Birds

All wild birds are protected under Section 1 of the WCA 1981 (as amended). Subsection 1(1) makes it an offence to intentionally kill, injure, or take any wild bird; take, damage or destroy the nest of any such bird whilst it is in use or being built; or take or destroy an egg of any such wild bird. It is, furthermore, an offence to either intentionally, or recklessly, disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird. The law covers all species of wild birds including common, pest or opportunistic species.

Amphibians

All native amphibians are protected under the WCA 1981 (as amended), with some species also protected under the European Habitats Directive (92/43/EC), transposed in England and Wales through the Conservation of Habitats and Species Regulations 2017. All amphibians are protected from keeping, transporting, selling or exchanging. This means that in practice reasonable measures must be taken to avoid their incidental mortality.

The Great Crested Newt (GCN) is protected under the Conservation of Habitats and Species Regulations 2017 and Schedule 5 / 9(4)(b) and (c) of the WCA 1981 (as amended). It is an offence to deliberately kill, injure, capture GCN or to deliberately disturb this species, or to intentionally or recklessly obstruct access to their places of shelter or protection, to damage or destroy their breeding sites or resting places, or to intentionally or recklessly disturb a GCN whilst in a place of shelter or protection. The legislation applies to all stages of the life cycle including eggs, larvae and juveniles. It should be noted that GCNs spend the majority of their lives on land, venturing up to 500 m (but more usually 250 m) from their breeding ponds and as such any ground works within 500 m of a breeding pond could potentially have an adverse effect on GCNs.

Reptiles

All six native species of reptiles are protected under the 1981 WCA (as amended), from intentional killing or injury. As such, all reasonable steps must be taken to avoid their incidental mortality when carrying out works.

Bats

All bats and their resting places are protected under Section 9(4)(b) and (c) of the WCA 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017.

It is an offence to destroy or damage a breeding site or resting place of a bat, to intentionally or recklessly obstruct access to any place of shelter or protection for bats, to deliberately disturb bat species, to intentionally or recklessly disturb a bat whilst in its place of shelter or protection, or deliberately capture, injure or kill a bat. It should be noted that a breeding site or resting place of a bat is protected whether or not bats are present, as long as it is likely that they will return, and any activity or works damaging or destroying such a breeding site or resting place are likely to require a Natural England European Protected Species Licence (EPSL).

Invasive Species

Invasive species are plant species which are prohibited from release into the wild. There is an extensive list (currently 42) which are set out in section 14(2) of the WCA 1981 (as amended) which states that '*if any person plants or otherwise causes to grow in the wild any plant which is included in Part II of Schedule 9, he shall be guilty of an offence.*'

The most widespread of these are Japanese knotweed *Fallopia japonica* and giant hogweed *Heracleum mantegazzianum* which are also covered by several pieces of legislation. The Environmental Protection Act 1990 (as amended) is a broad ranging piece of legislation that singles out Japanese knotweed and giant hogweed for special mention. The Act places a 'Duty of Care' on the producer and anyone they employ to dispose of soil or other material contaminated with Japanese knotweed or giant hogweed, such material becomes a controlled waste, which can only be taken to licensed landfill and must be dealt with in an appropriate way.

Appendix B – References

References

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The Natural Environment and Rural Communities Act 2006. HMSO

[REDACTED]

Wildlife and Countryside Act 1981 (as amended). HMSO

Appendix C – Assessment of Structures, Trees and Habitats for Bats

Assessment of Structures, Trees and Habitats for Bats

Guidance on Assessing the Potential Suitability of Development Sites to Support Bats (adapted from Collins, J. (ed)).

Suitability	Description	
	Roosting	Commuting and Foraging
Negligible	<p>An inspected structure or tree which is considered to have no features of importance for roosting bats.</p> <p>No further constraints apply to the method or timing of proposed works.</p>	<p>Negligible habitat features on-Site to support commuting or foraging bats.</p>
Low	<p>A structure with at least one or more features suitable to support opportunistic individual bats. However, inadequate space, shelter, protection and conditions, and the low suitability of surrounding habitats means that it is unlikely to be used as a maternity or hibernation roost site.</p> <p>A tree of adequate age and stature to support potential roosting features, however, either no features, or only features of limited potential recorded from the ground.</p>	<p>Habitat with potential to support low numbers of commuting bats due to its quality and connectivity. For example, a gappy hedgerow or unvegetated stream that is isolated from the surrounding landscape.</p> <p>Alternatively, suitable but isolated habitats suitable to support low numbers of foraging bats such as a lone tree or a patch of scrub.</p>
Moderate	<p>A structure or tree with one or more potential roost sites that are of adequate size, shelter and protection, with suitable conditions and surrounding habitat to support a bat roost not of high conservation status (with respect to roost type not individual species conservation status).</p>	<p>Linear habitat continuity connecting to the wider landscape offering potential to support commuting bats, such as rows of trees and scrub or linked back gardens.</p> <p>Habitat such as trees, scrub, grassland or a waterbody with connectivity to the wider landscape offering foraging opportunities for bats.</p>
High	<p>A structure or tree with one or more potential roost sites that are suitable for use by large numbers of bats on a regular basis and for long periods of time due to their size, shelter, protection, conditions and the surrounding habitat.</p>	<p>Continuous high-quality habitat with strong connectivity to the wider landscape that is likely to be used by commuting bats on a regular basis, such as flowing waterbodies, hedgerows, rows of trees and woodland edges.</p> <p>High quality habitat with strong connectivity to the wider landscape that is likely to be regularly used by foraging bats, such as broadleaved woodland, tree-lined watercourses and grazed parkland.</p> <p>Site is close to, and connected to, known roost sites.</p>

Appendix D – Target Notes

Target Notes

Target Note 1 - Stockpile, potential refugia.

Target Note 2 - Damage to reptile fencing.

Target Note 3 - Damage to reptile fencing.

Target Note 4 - Slippage exposing bare earth bank. Could be used by sand martins for breeding.

Appendix E – Site Photographs

Site Photographs



Photograph 1 – Bare ground north of Icen Way and woodland beyond



Photograph 2 – Bare ground south of Icen Way



Photograph 3 – Flood attenuation feature adjacent to the south of the Site



Photograph 4 – Reptile exclusion fencing adjacent to the north of the Site



Photograph 5 – Example of damage to reptile fencing



Photograph 6 – Earth bank created by slope failure

Appendix F – Native Floral Species to Plant for Wildlife Enhancement On-Site

Native Floral Species to Plant for Wildlife Enhancement On-Site

The following list gives good examples of plants for different conditions which have value for native fauna either as a food source or shelter. To maximise value for wildlife plants should ideally be native, not cultivars, and sourced locally where possible. Planting should look to provide food at all levels, with underplanting of trees with shrubs or species rich grassland to provide maximum value out of an area and add interest to planting schemes.

Note: it is currently generally not advised to plant ash because of ash die back. However, ash is a very valuable plant for wildlife especially as a semi-mature and mature tree. Therefore, if locally sourced trees or self-sets known to be free of the fungus are available then these should be incorporated. Additionally, trees not showing signs of being affected should be retained where possible.

Trees and Shrubs

Large trees

- ▲ Beech *Fagus sylvatica*;
- ▲ Bird cherry *Prunus padus*;
- ▲ Elm *Ulmus procera*;
- ▲ Oaks *Quercus robur* and *Q. petraea*;
- ▲ White willow *Salix alba*;
- ▲ Field maple *Acer campestre*;
- ▲ Silver birch *Betula pendula*;
- ▲ Rowan *Sorbus aucuparia*;
- ▲ Small-leaved lime *Tilia cordata*; and
- ▲ Walnut *Juglans regia*.

Medium/ Small Trees

- ▲ Alder *Alnus glutinosa*;
- ▲ Apples *Malus* spp. (local varieties can be found);
- ▲ Field maple *Acer campestre*;
- ▲ Holly *Ilex aquifolium*;
- ▲ Pears *Pyrus* spp.;
- ▲ Rowan *Sorbus aucuparia*;
- ▲ Silver birch *Betula pendula*;
- ▲ Yew *Taxus baccata*;
- ▲ Elder *Sambucus nigra*;
- ▲ Hazel *Corylus avellana*;
- ▲ Hawthorn *Crataegus monogyna*;
- ▲ Honeysuckle *Lonicera periclymenum*;
- ▲ Wild privet *Ligustrum vulgare*;
- ▲ Blackthorn *Prunus spinosa*; and
- ▲ Guelder-rose *Viburnum opulus*.

Plants for hedgerows and woodland understoreys

A combination of shrubs and climbers can make attractive hedges of great benefit for wildlife, as well as providing a functional boundary. Standard trees should be incorporated in hedgerows, with ash, oak and wayfarer tree three traditional choices, depending on the region. These should be marked so as not to be cut during management works. In addition, undersowing with a suitable shade tolerant wildflower mix is important to maximise value.

Trees and shrubs suitable for hedges and understorey planting

- ▲ Blackthorn *Prunus spinosa*;
- ▲ Buckthorn *Rhamnus catharticus*;
- ▲ Field maple *Acer campestre*;
- ▲ Holly *Ilex aquifolium*;
- ▲ Elder *Sambucus nigra*;
- ▲ Guelder rose *Viburnum opulus*;
- ▲ Hawthorn *Crataegus monogyna*;
- ▲ Hazel *Corylus avellana*;
- ▲ Privets, including wild privet *Ligustrum vulgare*; and
- ▲ Spindle *Euonymus europaeus*.

Climber and scramblers suitable for hedgerows and understorey planting

- ▲ Dog rose *Rosa canina*;
- ▲ Field rose *Rosa arvensis*;
- ▲ Ivy *Hedera helix*;
- ▲ Honeysuckle *Lonicera periclymenum*;
- ▲ Wild clematis/ old man's beard *Clematis vitalba*; and
- ▲ Hop *Humulus lupulus*.

Understorey flowering plants providing ground cover for shady areas

These species flower early before trees are in full leaf, and will do well in areas that become shady later in the year.

- ▲ Bluebell *Hyacinthoides non-scripta*;
- ▲ Bugle *Ajuga reptans*;
- ▲ Wild daffodil *Narcissus pseudonarcissus*;
- ▲ Foxglove *Digitalis purpurea*;
- ▲ Lords-and-ladies/ cuckoopint *Arum maculatum*;
- ▲ Primrose *Primula vulgaris*;
- ▲ Sweet violet *Viola odorata*; and
- ▲ Wood avens *Geum urbanum*.