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# **Land North of An Teachin, Hawley Road, Sutton at Hone, Dartford, Kent**

**Preliminary Ecological Appraisal**

**August 2021**

# Land North of An Teachin, Hawley Road, Sutton at Hone, Dartford, Kent

## Preliminary Ecological Appraisal

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<b>Report No.:</b>	UE0462_AnTeachin_PEA_0_210811	
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# Abbreviations

CHS	Conservation of Habitats and Species Regulations 2017 (as amended)
EPS	European Protected Species
GCN	Great crested newt
HSI	Habitat Suitability Index
KMBRC	Kent and Medway Biological Records Centre
LGS	Local Geological Site
LNR	Local Nature Reserve
LWS	Local Wildlife Site
NERC	Natural Environment and Rural Communities Act 2006
NNR	National Nature Reserve
NPPF	National Planning Policy Framework
PEA	Preliminary Ecological Assessment
PRF	Potential (bat) Roost Feature
SAC	Special Area for Conservation
SNCI	Site of Nature Conservation Interest
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
TN	Target Note
WCA	Wildlife & Countryside Act 1981 (as amended)

## 0 Executive Summary

- 0.1.1 A Preliminary Ecological Appraisal was undertaken for the site of a proposed stable development at Land North of An Teachin, Hawley Road (Grid Reference: 555282, 171658). The report was prepared to identify and significant ecological constraints, inform the design process for the proposal, record the ecological baseline and identify key ecological features within and around the proposal site.
- 0.1.2 The site lies to the south of the town of Dartford in the Borough of Dartford in Kent. The site is c.1.9ha of undeveloped land comprising semi-improved grassland, with tall ruderal vegetation, dense scrub, scattered trees, hedgerows, and margins of woodland. The wider landscape is characterised by a patchwork of arable and pasture farmland with tributaries of the River Darent, sparse residential development, hedgerows and lines of mature trees. The sprawling urban development of Dartford lies to the north.
- 0.1.3 There are two non-statutory sites of local importance within 2km of the site, both Local Wildlife Sites (LWS): Sutton at Hone Lakes LWS and Sutton at Hone Churchyard LWS. There is a section of the River Darent directly adjacent to the site on the eastern boundary which is included with the Sutton at Hone Lakes LWS. This designation includes the broadleaf woodland which is within the site at the eastern boundary.
- 0.1.4 There are records of a range of protected or notable species in the locality, including amphibians, birds, fish, invertebrates, terrestrial mammals, flowering plants and terrestrial reptiles, together with one type of priority habitat: lowland deciduous woodland. There is no ancient woodland within 2km of the site. Four ponds lie within 500m of the site.
- 0.1.5 Although the habitats on site present suitable conditions for a range of protected species, no further botanical or protected species surveys are required due to the limited size and scope of the proposals. The risk of impacts protected species, principally great crested newt and reptiles, as well as nesting birds, can be managed using a non-licenced method statement and careful timing of works. Recommendations are made accordingly for the protection of important ecological features to avoid or mitigate ecological impacts, along with recommendations for ecological enhancement; these are summarised in Table 0.1. It is intended that these recommendations should be considered during any future changes to the design of development proposals so that protection of important ecological features is secured and opportunities for ecological enhancement are realised.

**Table 0.1: Summary of recommendations**

#	Summary of recommendations
<b>Precautionary measures</b>	
<b>R1</b>	Vegetation clearance works will be undertaken during the GCN active season (March to October) and in accordance with a Non-Licensed Method Statement to reduce the risk of killing/injury to GCN.
<b>R2</b>	Removal of nesting bird habitats (including ground vegetation and buildings) will be undertaken outside of the bird nesting season, which runs from 1 March to 31 August. It will therefore be carried out between September and February.
<b>R3</b>	Vegetation clearance works will be undertaken during the reptile active season (broadly March/April to September/October) and in accordance with a Precautionary Working Method Statement to reduce the risk of killing/injury to reptiles.
<b>Ecological protection measures</b>	
<b>R4</b>	Areas of deciduous woodland and hedgerow priority habitat within the survey area are of high intrinsic ecological value and provide habitats suitable for a range of protected species. These habitats will be retained and protected during construction.
<b>R5</b>	Standard site procedures to prevent impacts on trees will be adhered to during construction.
<b>R6</b>	A method statement will be prepared to ensure adequate control measures are adopted to prevent the spread of invasive winter heliotrope during construction.
<b>R7</b>	The use of external lighting will be avoided or minimised to prevent impacts to nocturnal species such as bats. Lighting will not be directed towards the boundary hedgerows or Sutton at Hone Lakes LWS to the east.
<b>Ecological enhancement</b>	
<b>R8</b>	Habitat piles for amphibians, invertebrates and reptiles will be created within areas of retained rough grassland, scrub or woodland.
<b>R9</b>	The value of the site for birds will be enhanced by installing a range of artificial nest boxes onto retained trees.
<b>R10</b>	The value of the site for bats will be enhanced by installing a range of artificial roost boxes onto retained trees.



# 1 Introduction

## 1.1 The Proposals

- 1.1.1 This report presents a Preliminary Ecological Appraisal for the site of a proposed equine development on Land North of An Teachin, Hawley Road, Sutton at Hone, Dartford (Grid Reference: 555282, 171658). The site location is shown on Figure 1.1.
- 1.1.2 It is understood that planning consent is being sought for the construction of an access track and parking area, along with one stable comprising of four stable units and a storage area. Figure 1.2 illustrates the proposed site layout.
- 1.1.3 The planning application site boundary is expected to be the same as the survey area boundary.

## 1.2 Objectives and Approach of the Study

- 1.2.1 This study aims to establish the ecological baseline by identifying the key ecological features within and around the proposal site in order to assess the site's suitability for development, and to inform the design process for the proposal. Specifically, the objectives of the Preliminary Ecological Appraisal were to:
- ▶ Identify features present on the site or adjacent which are ecologically significant, and which may act as constraints or opportunities to the proposed development;
  - ▶ Consider the need for further ecological surveys which may be necessary; and
  - ▶ Make preliminary recommendations for the protection of important ecological features, to avoid or mitigate ecological impacts, and to enhance the ecology of the site post-construction, with the aim of achieving an overall net gain for biodiversity.
- 1.2.2 The ecological baseline has been achieved through a desk study, an extended Phase 1 habitat survey. There followed an appraisal of the potential effects of the development proposals with respect to the nature conservation value of the site.

# An Teachin Hawley road Dartford

 Survey area

Figure 1.1: Survey area



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Ordnance Survey 0100031673

Scale: 1:5,000      Created by: AD  
Date: Jul 2021      Reviewed by: NP  
Drawing number:  
UE0462ECO-Site\_210720



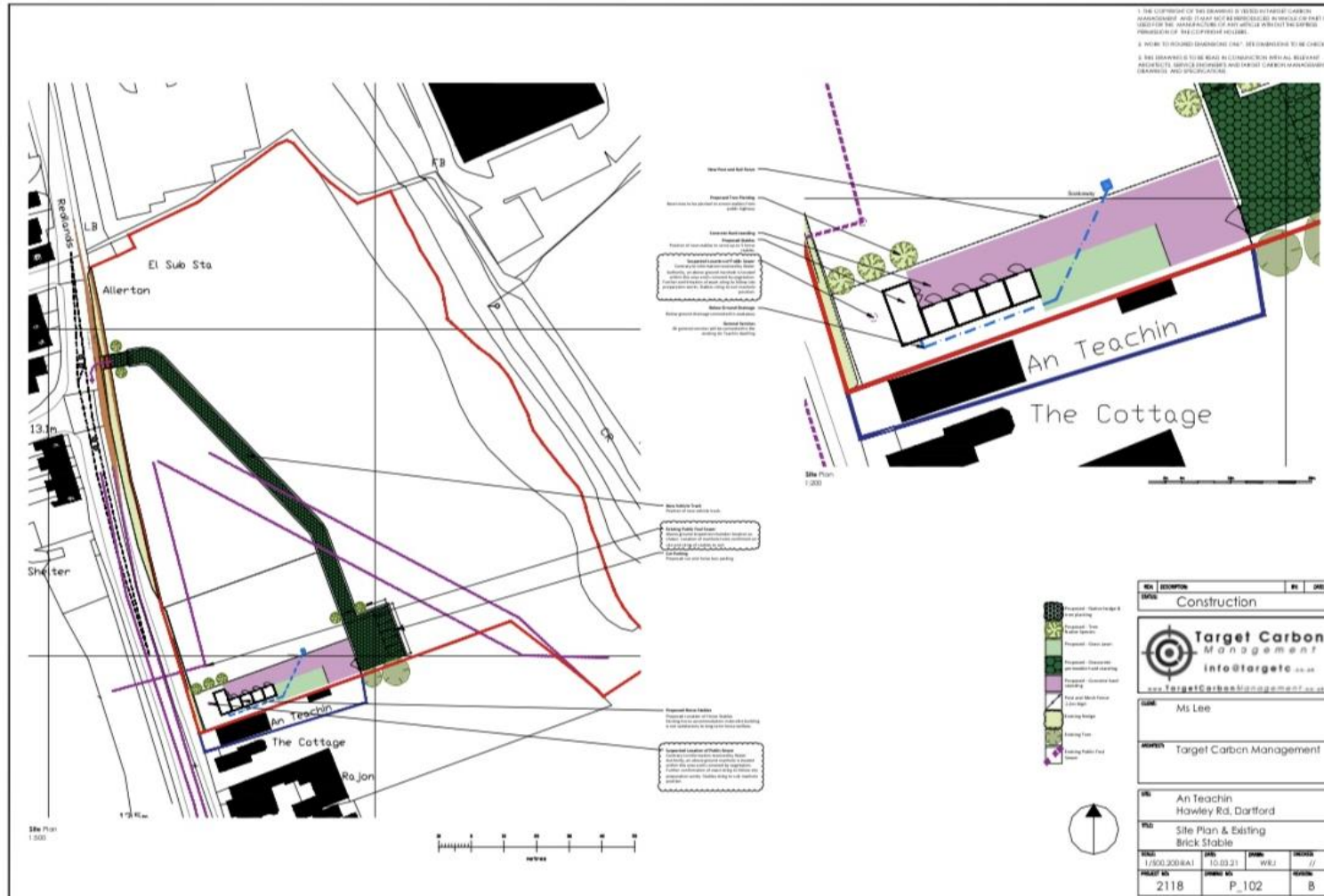


Figure 1.2: Proposed site layout

## 2 Survey Methodology

### 2.1 Personnel

2.1.1 The desk study and site survey was undertaken by Jeff Turton BSc (Hons) ACIEEM, an ecologist of Urban Edge Environmental Consulting who has six years of professional consultancy experience of undertaking studies of this kind. Jeff holds Natural England Class Licences to survey for great crested newt (WML-CL08) and bats (WML-CL17). The report was extensively reviewed by Nick Pincombe BA(Hons) MSc CEnv MIEMA MCIEEM, Director of Urban Edge Environmental Consulting, who has fifteen years' experience in leading survey and impact assessment teams for a wide range of ecology and environmental planning projects. Nick holds Natural England Class Licences to survey for bats (WML-CL18) and great crested newt (WML-CL08).

### 2.2 Desk Study

2.2.1 In addition to understanding the context of the site within the local landscape, the desk study established the presence of:

- ▶ Internationally protected sites within 10km,
- ▶ Site of Special Scientific Interest (SSSI) impact risk zones,
- ▶ Statutory and non-statutory designated sites of nature conservation interest, records of protected/notable species, and priority habitats within the site and a 1km search area around it (2km for records of bats),
- ▶ Priority habitats within 1km of the site, and
- ▶ Ponds within 500m.

2.2.2 Priority habitats include those listed on local Biodiversity Action Plans and habitats of principal importance listed under section 41 of the Natural Environment and Rural Communities Act 2006.

2.2.3 Information was collected from the following sources:

- ▶ The 'MAGIC' (Multi-agency Geographic Information for the Countryside) website: [www.magic.gov.uk](http://www.magic.gov.uk); and
- ▶ Kent and Medway Biological Records Centre (KMBRC).

### 2.3 Site Surveys

#### ***Extended Phase 1 Habitat Survey***

2.3.1 Every parcel of land within the survey area was classified, recorded and mapped in accordance with the methodology for Phase 1 habitat survey (Joint Nature Conservation Council, 2010). This

allows rapid visual assessment of the extent and distribution of different habitat types. Plant species within each habitat parcel were given a DAFOR score which describes their relative abundance within the habitat. The DAFOR scale denotes species which are Dominant, Abundant, Frequent, Occasional or Rare within a given habitat patch. Target notes were used where necessary to provide supplementary information on features which may be of significance to the proposals, or were too small to map, or to provide additional details, for example relating to species composition and structure.

2.3.2 This basic methodology was extended to provide more detail in relation to habitats with potential to support rare or protected fauna, as described by the Chartered Institute of Ecology and Environmental Management’s *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2017b). The assessment of habitat suitability for protected, rare or priority species is based on current good practice guidance such as that presented in the *Herpetofauna Workers’ Manual* (Gent and Gibson, 2003) and *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collin (ed.), 2016). Where a species/group is not specifically evaluated, this indicates that no habitat of potential value for the species was identified during the survey.

**Preliminary Roost Assessment**

2.3.3 Trees were assessed for PRFs such as woodpecker holes, cavities, cracks or splits in major limbs (e.g. hazard beams, rot holes, frost cracks, knot holes, occlusions, flush cuts, tear-outs, cankers or butt-rots), loose platey bark, aerial deadwood and dense ivy or epicormic growth. The tree inspection was carried out from ground level.

2.3.4 The PRA was undertaken with the aid of the following equipment: telescopic ladders to gain safe access; Wildlife Acoustics EchoMeter Touch full spectrum bat detector to record and identify the calls of any bats present; telescopic mirror to inspect hidden cavities; close-focusing binoculars; and digital camera to record any evidence of bats or features suitable for use by bats.

<b>Box 1: Potential suitability of structures/trees for roosting bats (after Collins, 2016)</b>	
<b>Suitability</b>	<b>Roosting habitats</b>
<u>Negligible</u>	Negligible habitat features on site likely to be used by roosting bats
<u>Low</u>	A structure with one or more potential roost features (PRF) that could be used by individual bats opportunistically, but do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats  A tree of sufficient size and age to contain PRFs but with none seen from the ground / using ladders or features seen with only very limited roosting potential
<u>Moderate</u>	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (for roost type only)
<u>High</u>	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat
<u>Confirmed roost</u>	Bats or unequivocal evidence of bats found, i.e. bat droppings

## **2.4 Evaluation**

- 2.4.1 Important ecological features were evaluated to the extent possible under the survey methods used, and in relation to a geographical frame of reference, i.e. international/European value being most important, then national, regional, metropolitan/county/district/borough, and lastly local (based on CIEEM, 2018).
- 2.4.2 Value judgements are based on various characteristics that contribute to the importance of ecological features. These include site designations (such as Sites of Special Scientific Interest, or for undesignated features, the extent, naturalness, conservation status (local or national importance and so on), and quality of the ecological resource. Quality can refer to habitats (for instance if they are particularly diverse, are a good example of a specific habitat type, or provide for the requirements of important species or assemblages), other features (such as connectivity provided by wildlife corridors or mosaics of habitats) or the richness and abundance of species populations or assemblages.

## **2.5 Limitations**

- 2.5.1 Biological records gathered during the desk study can provide an indication of the likely presence of a species on or adjacent to a site, however, the absence of records for protected species does not equate to evidence of their absence from the locality. The accuracy of data provided by record centres is variable and some records are georeferenced to a 1km grid square.
- 2.5.2 The time of year the phase 1 survey was carried out will influence the results. Botanical species vary considerably in their flowering, seeding and fruiting periods, and identification outside of these periods can make accurate species identification complicated or impossible. Where this is the case plants have been identified to the lowest possible taxonomic group, normally genus. Additionally, the possibility exists for other species to be present on the site which were not recorded or are only evident at other times of the year. Ornamental species are not included in botanical listings.
- 2.5.3 The phase 1 survey reported herein was carried out in mid-summer, during the flowering period for many botanical species. The timing of the survey is not considered to be a significant limitation to meeting the objectives of the survey.
- 2.5.4 There were no difficulties in gaining access to survey the site's habitats and assess protected species suitability. Adjacent habitats were surveyed where appropriate and where access allowed in order to identify constraints falling outside of the proposed development site and to place the site in its ecological context.
- 2.5.5 The pond search was undertaken through review of colour OS maps. It is possible that not all ponds are detected within 500m of the site through this method as small garden ponds are often not mapped. Given that most garden ponds are small, often contain fish, are often contained and isolated within garden fencing, and that not all gardens have a pond, this is not considered to be a significant limitation.

- 2.5.6 This report aims to provide general advice on the ecological constraints associated with development proposals for the site and includes recommendations for further survey where appropriate. Where impacts are likely or further ecological surveys are recommended, a more detailed Ecological Impact Assessment (EclA) of the effects of the proposed development should be carried out based on the results of recommended surveys. The EclA will include detailed advice on ecological avoidance, mitigation, enhancement and/or compensation measures. This is in line with the latest guidance from the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017a, 2017b, 2018).
- 2.5.7 See Appendix IV for general Legal and Technical Limitations which apply to this document.

## 3 Results

### 3.1 Desk Study

#### ***Site and local landscape context***

- 3.1.1 The site lies to the south of the town of Dartford in the Borough of Dartford in Kent. The site is c.1.9ha of undeveloped land comprising semi-improved grassland, with tall ruderal vegetation, dense scrub, scattered trees, hedgerows, and margins of woodland. The survey area is bounded to the north by woodland surrounding a hard standing car park, to the east by the River Darent with woodland and rough grassland beyond, to the south by the M25 and pasture with sparse residential development, and to the west by further pasture and the village of Hawley. The extent of the survey area is outlined in red on Figure 1.1.
- 3.1.2 The wider landscape is characterised by a patchwork of arable and pasture farmland with tributaries of the River Darent, sparse residential development, hedgerows and lines of mature trees. The sprawling urban development of Dartford lies to the north.

#### ***Designated sites***

- 3.1.3 There are no internationally designated sites within 10km of the site.
- 3.1.4 There are no national statutory protected sites identified within 1km of the site.
- 3.1.5 The site is within the Darent Wood SSSI impact risk zone. Darent Wood SSSI is located at a minimum of c.1.5km east from the site.
- 3.1.6 There are two non-statutory sites of local importance within 1km of the survey area, both Local Wildlife Sites (LWS). These are Sutton at Hone Lakes LWS and Sutton at Hone Churchyard LWS. The section of the River Darent which is directly adjacent to the site on the eastern boundary is included within the Sutton at Hone Lakes LWS. This designation also includes the broadleaf woodland which is within the site at the eastern boundary.
- 3.1.7 The information provided by KMBRC regarding these sites is presented in Table 3.1, while Figure 3.1 shows their locations in relation to the survey area.

#### ***Priority habitats and ancient woodland***

- 3.1.8 There are many areas of lowland deciduous woodland priority habitat within 1km of the site. The woodland strip at the northern boundary is included within this (MAGIC, 2021). No areas of ancient woodland exist within 1km of the site.



### **Pond search**

- 3.1.9 Analysis of OS colour mapping found four ponds within 500m of the site. Two are within a traversable 250m of the site (P1 and P2). Pond P1 is the closest, located c.20m south of the site; see Appendix II. Pond P2 lies on the other side of the River Darent.

### **Records of protected, rare and notable species**

- 3.1.10 Biological records were obtained from KMBRC for the desk study search area and are summarised in Table 3.2.

**Table 3.1: Nature conservation sites within 1km**

<b>Site name</b>	<b>Location*</b>	<b>Description</b>
<b>Sutton at Hone Lakes LWS</b>	On site and extending to over 1km away.	Specific reasons for designation not provided by KMBRC but this LWS consists of freshwater lakes used for sport fishing, interspersed and bordered by semi-natural lowland broadleaf woodland.
<b>Sutton at Hone Churchyard LWS</b>	c.1km south	Specific reasons for designation not provided by KMBRC but the churchyard is likely to be botanically rich, although no priority habitats are mapped for this site.

\* Approximate distance and bearing from the site

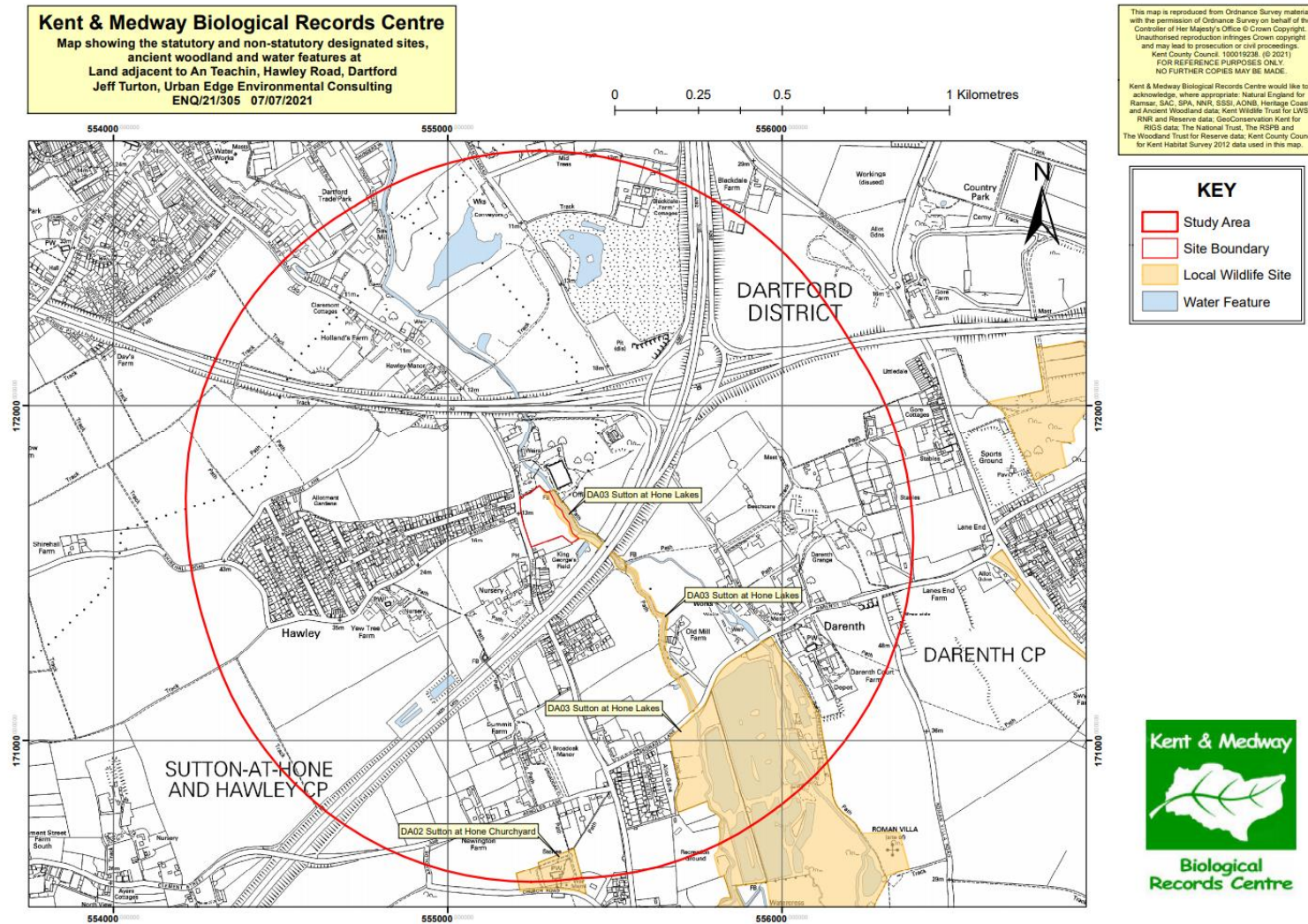


Figure 3.1: Non-statutory nature conservation sites within 1km

**Table 3.2: Records of protected, rare & notable species within 1km (5km for bats)**

Group	Species	Protection
Amphibians	Common Toad <i>Bufo bufo</i>	WCA Sch.5 part, NERC s41
	Smooth Newt <i>Lissotriton vulgaris</i> , Common Frog <i>Rana temporaria</i>	WCA Sch.5 part
Birds (note: species may appear more than once)	Kingfisher <i>Alcedo atthis</i> , Barnacle goose <i>Branta leucopsis</i> , Little Egret <i>Egretta garzetta</i> , Merlin <i>Falco columbarius</i> , Peregrine <i>Falco peregrinus</i> , Smew <i>Mergus albellus</i> , Red Kite <i>Milvus milvus</i> , Osprey <i>Pandion haliaetus</i> , Honey Buzzard <i>Pernis apivorus</i> , Common tern <i>Sterna hirundo</i>	Birds Dir.1
	Kingfisher <i>Alcedo atthis</i> , Cetti's Warbler <i>Cettia cetti</i> , Little Ringed Plover <i>Charadrius dubius</i> , Quail <i>Coturnix coturnix</i> , Merlin <i>Falco columbarius</i> , Peregrine <i>Falco peregrinus</i> , Brambling <i>Fringilla montifringilla</i> , Hobby <i>Falco subbuteo</i> , Red Kite <i>Milvus milvus</i> , Osprey <i>Pandion haliaetus</i> , Honey Buzzard <i>Pernis apivorus</i> , Black Redstart <i>Phoenicurus ochruros</i> , Firecrest <i>Regulus ignicapillus</i> , Green Sandpiper <i>Tringa ochropus</i> , Redwing <i>Turdus iliacus</i> , Fieldfare <i>Turdus pilaris</i> , Barn Owl <i>Tyto alba</i>	WCA Sch.1
	Lesser Redpoll <i>Acanthis cabaret</i> , Skylark <i>Alauda arvensis</i> , Cuckoo <i>Cuculus canorus</i> , Yellowhammer <i>Emberiza citrinella</i> , Reed Bunting <i>Emberiza schoeniclus</i> , Corn Bunting <i>Emberiza calandra</i> , Lesser Spotted Woodpecker <i>Dendrocopos minor</i> , Dunnock <i>Prunella modularis</i> , Herring Gull <i>Larus argentatus</i> , Linnet <i>Linaria cannabina</i> , Yellow Wagtail <i>Motacilla flava</i> , Spotted Flycatcher <i>Muscicapa striata</i> , House Sparrow <i>Passer domesticus</i> , Tree Sparrow <i>Passer montanus</i> , Grey Partridge <i>Perdix perdix</i> , Bullfinch <i>Pyrrhula pyrrhula</i> , European Turtle Dove <i>Streptopelia turtur</i> , Starling <i>Sturnus vulgaris</i> , Song Thrush <i>Turdus philomelos</i> , Lapwing <i>Vanellus vanellus</i>	NERC s41
	Lesser Redpoll <i>Acanthis cabaret</i> , Skylark <i>Alauda arvensis</i> , Pochard <i>Aythya farina</i> , Cuckoo <i>Cuculus canorus</i> , Lesser Spotted Woodpecker <i>Dendrocopos minor</i> , Corn Bunting <i>Emberiza calandra</i> , Yellowhammer <i>Emberiza citrinella</i> , Merlin <i>Falco columbarius</i> , Pied Flycatcher <i>Ficedula hypoleuca</i> , Herring Gull <i>Larus argentatus</i> , Linnet <i>Linaria cannabina</i> , Grey Wagtail <i>Motacilla cinerea</i> , Yellow Wagtail <i>Motacilla flava</i> , Spotted Flycatcher <i>Muscicapa striata</i> , House Sparrow <i>Passer domesticus</i> , Tree Sparrow <i>Passer montanus</i> , Black Redstart <i>Phoenicurus ochruros</i> , Grey Partridge <i>Perdix perdix</i> , Red-necked grebe <i>Podiceps grisegena</i> , Whinchat <i>Saxicola rubetra</i> , Woodcock <i>Scolopax rusticola</i> , Turtle Dove <i>Streptopelia turtur</i> , Starling <i>Sturnus vulgaris</i> , Redwing <i>Turdus iliacus</i> , Fieldfare <i>Turdus pilaris</i> , Mistle Thrush <i>Turdus viscivorus</i> , Song Thrush <i>Turdus philomelos</i> , Lapwing <i>Vanellus vanellus</i> ,	RL
Common Sandpiper <i>Actitis hypoleucos</i> , Kingfisher <i>Alcedo atthis</i> , Pink-footed goose <i>Anser brachyrhynchus</i> , Greylag Goose <i>Anser anser</i> , Shoveler <i>Anas clypeata</i> , Teal <i>Anas crecca</i> , Mallard <i>Anas platyrhynchos</i> , Meadow Pipit <i>Anthus pratensis</i> , Gadwall <i>Anas strepera</i> , Swift <i>Apus</i>	AL	

Group	Species	Protection
	<i>apus</i> , Barnacle goose <i>Branta leucopsis</i> , Goldeneye <i>Bucephala clangula</i> , Black-headed Gull <i>Chroicocephalus ridibundus</i> , Stock Dove <i>Columba oenas</i> , Quail <i>Coturnix coturnix</i> , Mute Swan <i>Cygnus olor</i> , House Martin <i>Delichon urbicum</i> , Reed Bunting <i>Emberiza schoeniclus</i> , Kestrel <i>Falco tinnunculus</i> , Snipe <i>Gallinago gallinago</i> , Common Gull <i>Larus canus</i> , Lesser Black-backed Gull <i>Larus fuscus</i> , Black-backed Gull <i>Larus marinus</i> , Smew <i>Mergus albellus</i> , Osprey <i>Pandion haliaetus</i> , Honey Buzzard <i>Pernis apivorus</i> , Dunnock <i>Prunella modularis</i> , Willow Warbler <i>Phylloscopus trochilus</i> , Bullfinch <i>Pyrrhula pyrrhula</i> , Common tern <i>Sterna hirundo</i> , Tawny Owl <i>Strix aluco</i> , Shelduck <i>Tadorna tadorna</i> , Green Sandpiper <i>Tringa ochropus</i>	
Fish	Bullhead <i>Cottus gobio</i>	Habs.Dir.2
	European Eel <i>Anguilla Anguilla</i> ,	NERC s41
Invertebrates	Stag Beetle <i>Lucanus cervus</i>	Habs.Dir.2, WCA Sch.5 part, NERC s41
Mammals (terrestrial)	Noctule <i>Nyctalus noctula</i> , Soprano Pipistrelle <i>Pipistrellus pygmaeus</i> , Brown Long-eared Bat <i>Plecotus auritus</i>	Habs.Dir.4, CHS Sch.2, WCA Sch.5 full, NERC s41
	Serotine <i>Eptesicus serotinus</i> , Daubenton's Bat <i>Myotis daubentonii</i> , Brandt's/Whiskered Bat <i>Myotis brandtii /mystacinus</i> , Natterer's Bat <i>Myotis nattereri</i> , Leisler's Bat <i>Nyctalus leisleri</i> , Nathusius' Pipistrellus <i>nathusii</i> Common Pipistrelle <i>Pipistrellus pipistrellus</i>	Habs.Dir.4, CHS Sch.2, WCA Sch.5 full
	European Water Vole <i>Arvicola amphibius</i>	WCA Sch.5 full, NERC s41
	Badger <i>Meles meles</i>	WCA Sch.6, PBA
	West European Hedgehog <i>Erinaceus europaeus</i>	NERC s41
Plants	Pennyroyal <i>Mentha pulegium</i>	WCA Sch.8, NERC s41
	Bluebell <i>Hyacinthoides non-scripta</i> , Field erylgo <i>Eryngium campestre</i> , Broad-leaved cudweed <i>Filago pyramidata</i> , Least lettuce <i>Lactuca saligna</i> , Ground-pine <i>Ajuga chamaepitys</i> , Starved wood-sedge <i>Carex depauperata</i>	WCA Sch.8
	White Helleborine <i>Cephalanthera damasonium</i> , Man Orchid <i>Orchis anthropophora</i>	NERC s41
Reptiles (terrestrial)	Slow Worm <i>Anguis fragilis</i> , Grass Snake <i>Natrix natrix</i> , Common Lizard <i>Zootoca vivipara</i>	WCA Sch.5 part, NERC s41

Birds.Dir.1 Wild Birds Directive 2009/147/EC Annex 1  
 Habs.Dir.2/4 Habitats Directive 92/43/EEC Annex 2 or 4  
 CHS Sch.X Conservation of Habitats & Species Regulations 2017 Schedules 2 (EPS animals) or 5 (EPS plants)  
 WCA s1/Sch.X Wildlife and Countryside Act 1981 Section 1 / Schedules 1, 5 (fully or partially protected), 6 or 8  
 PBA Protection of Badgers Act 1992  
 NERC s41 Natural Environment & Rural Communities Act 2006 Section 41 Species of Principal Importance  
 RL/AL Red/Amber Listed (IUCN or Birds of Conservation Concern 4 (Eaton et al., 2015))  
 NR Nationally Rare  
 NS Nationally Scarce

## 3.2 Phase 1 Habitat Survey

3.2.1 The following Phase 1 habitats were identified within or adjacent to the site and are described in the sections below broadly in the order of their extent. The habitats are shown on the Phase 1 habitats map at Appendix I.

- ▶ Semi-improved grassland
- ▶ Dense scrub/tall ruderal mosaic
- ▶ Tall ruderal
- ▶ Broadleaf woodland
- ▶ Species poor hedgerow
- ▶ Scattered trees
- ▶ Plantation woodland

### **Semi-improved grassland**

3.2.2 The site was primarily a semi-improved grassland field. The sward was up to 1m tall at the time of the survey, and was being subject to low density horse grazing. Cock's foot *Dactylis glomerata* and false oat grass *Arrhenatherum elatius* were abundant. Common ragwort *Senecio jacobaea*, hogweed *Heracleum sphondylium*, creeping cinquefoil *Potentilla reptans*, dandelion *Taraxacum sp.*, Yorkshire fog *Holcus lanatus*, common nettle *Urtica dioica*, meadowgrass *Poa sp.*, yarrow *Achillea millefolium* and field bindweed *Convolvulus arvensis* were all found frequently. Thistles *Cirsium sp.*, ribwort plantain *Plantago lanceolata*, common couch *Elytrigia repens*, doves-foot cranesbill *Geranium molle*, Oxeye daisy *Leucanthemum vulgare*, common vetch *Vicia sativa*, white bryony *Bryonia dioica* and mallow *Malva sylvestris* were all occasional. There was one instance of pyramidal orchid *Anacamptis pyramidalis*.

### **Dense scrub/tall ruderal mosaic**

3.2.3 In the south-eastern corner of the site there was a mosaic of dense scrub and tall ruderal. This habitat was mostly occupied by abundant bramble *Rubus fruticosus*, but also included abundant common nettle and hogweed. Thistles and jack-by-the-hedge *Alliaria petiolata* were occasional, while white bryony was rare.

### **Tall ruderal**

3.2.4 There were two distinctly different patches of tall ruderal vegetation towards the north of the site: TR1 and TR2, see the Phase 1 habitats plan at Appendix I. TR1 was dominated by common nettle only. TR2 was more diverse and occupied the north-western corner and boundary of the site. Here, bramble regrowth, false oat grass and nettles were abundant, while teasel *Dipsacus fullonum* was found frequently. Thistle species, rapeseed *Brassica napus*, mallow and opium poppy *Papaver somniferum* (a non-native) were found occasionally. White campion *Silene latifolia* was found rarely. A pile of brash which could provide refugia to a range of animal wildlife was located among TR2 (TN1; Appendix I). Piles of brash and piles of concrete were found at the edges of the tall ruderal in the south-west of the site (TN2; Appendix I).

### **Broadleaf woodland**

- 3.2.5 There were two differing parcels of broadleaf woodland within the site boundaries: BW1 and BW2, see the Phase 1 habitat plan at Appendix I. BW1 is an isolated copse towards the north of the site. Willow *Salix sp.* were abundant, and some were growing to c.10m tall. Aspen *Populus tremula* were frequent. There was a dense understorey of nettles and the canopy was low to the ground. The copse was impenetrable and the inner areas could not be inspected.
- 3.2.6 Starting at the northern boundary of the site BW2 consisted of a boundary of mature aspen trees. The boundary at the north was c.10m wide and the trees were c.15-20m tall along the entire length of BW2. Growth was thick and impenetrable in places with a lower canopy of abundant bramble and hogweed.

### **Species-poor hedgerow**

- 3.2.7 Hedgerow H1 (see Appendix I) was a southern boundary hedge measuring c.2-3m wide, c.3-5m tall and c.50m long with no gaps. Hybrid elm *Ulmus sp.* was the dominant species, but hawthorn *Crataegus monogyna* was occasional.
- 3.2.8 Hedgerow H2 was also a boundary hedgerow, in the south-western part of the site. It was c.1m wide, c.3m tall and c.40m long with no gaps. Hawthorn was the dominant species here; ash *Fraxinus excelsior* was rare.

### **Scattered trees**

- 3.2.9 Scattered trees noted around the site included: *Leylandii sp.*, Hawthorn, sycamore *Acer pseudoplatanus*, horse chestnut *Aesculus hippocastanum*, willow *Ulmus sp.*, ash and cherry *Prunus sp.* The scattered trees noted were at boundaries not included within the wooded border and were semi-mature. They were considered unlikely to support Potential Roosting Features (PRF) for bats due to their size/maturity.

### **Plantation woodland/orchard**

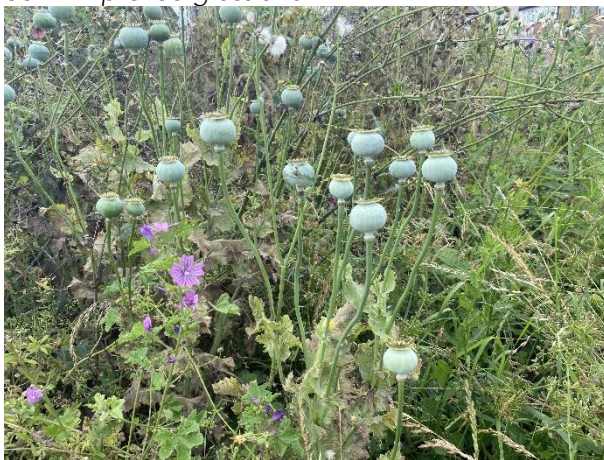
- 3.2.10 In the south-western corner of the site was a small copse of apple trees. The trees do not appear to have been managed like a traditional orchard. The trees are semimature and the canopies are closely intertwined. There is a carpeted understorey of ivy *Hedera helix* and winter heliotrope *Petasites fragrans*, which is an invasive non-native species.



*Semi-improved grassland*



*Dense scrub / tall ruderal mosaic*



*Tall ruderal TR2 focused on opium poppy*



*Willow copse at BW1*



*Wooded eastern border BW2*



*Species-poor hedgerow H1 with off-site conifer*



*Hawthorn dominated H2 alongside the road*



*Plantation woodland/orchard*



*Brash pile at TN1*



*Rubble refugia and winter heliotrope at TN2*



## 4 Evaluation

### 4.1 Introduction

4.1.1 This section evaluates the survey area in terms of the habitats and species present or potentially present on site or its immediate vicinity, in the context of relevant legislation and planning policy. See Appendix III for a review of the legislation and planning context.

### 4.2 Designated Sites

4.2.1 Part of the Sutton at Hone Lakes LWS is located on the eastern boundary of the site, extending into the adjacent land and continuing southwards. The LWS will be buffered by an undeveloped zone of at least 50m from the construction footprint. Given the size and scale of the proposals, the LWS is unlikely to be affected.

4.2.2 The site falls within the Impact Risk Zone for Darenth Wood SSSI. Within this zone Natural England should be notified when proposals are in relation to aviation, such as airports and new helipads. The proposed development does not fall within these categories and no further action is needed.

### 4.3 Habitats

#### **Priority habitats**

4.3.1 None of the lowland deciduous woodland priority habitat within 1km of the site will be adversely affected by the proposed development due to the size and scope of the proposals. This includes the woodland strip at the north of the site which is mapped as lowland deciduous woodland.

4.3.2 Priority habitats present within the site or at its boundaries include:

- ▶ Species-poor hedgerow
- ▶ Lowland Mixed Deciduous woodland

#### **Species-poor hedgerow**

4.3.3 Hedgerow habitats are of high intrinsic ecological value and provide habitats suitable for a range of protected species, including amphibians and reptiles (shelter and dispersal), nesting birds, invertebrates, foraging/commuting bats, and hazel dormouse *Muscardinus avellanarius*.

4.3.4 Both the hedgerows on site (H1-H2) were classified as species-poor. Priority habitat hedgerows are defined as "any boundary line of trees or shrubs over 20m long and less than 5m wide, and where any gaps between the trees or shrub species are less than 20m wide..., consisting predominantly (i.e. 80% cover or more) of at least one woody UK native species" (any bank, wall, ditch or tree within 2m of the centre of the hedgerow is considered to be part of the hedgerow

habitat, as is the herbaceous vegetation within 2m of the centre of the hedgerow) (Maddock, 2008). Both hedgerows H1/H2 broadly fall into this classification.

- 4.3.5 Although detailed proposals for the site are not yet finalised, it is currently anticipated the hedgerows will be retained and protected during construction.

**Lowland Mixed Deciduous Woodland**

- 4.3.6 The copse of willows at BW1 does not fit the criteria of Lowland Mixed Deciduous Woodland as it is dominated by one tree species. The woodland at the northern and eastern boundaries (BW2) does constitute Lowland Mixed Deciduous Woodland priority habitat. The deciduous woodland priority habitat features are of high intrinsic ecological value and provide habitats suitable for a range of protected species, including nesting birds, badger *Meles meles* (foraging and sett creation), foraging, commuting and roosting bats, and hazel dormouse *Muscardinus avellanarius*. Dead wood within these habitats also provides valuable habitat for fungi and saproxylic invertebrates (e.g. stag beetle *Lucanus cervus*) and refuge/hibernation habitats for widespread amphibians, great crested newt *Triturus cristatus* and reptile species. These priority habitats are due to be retained as part of the proposed works and will be avoided during construction.

**Other habitats**

- 4.3.7 The proposed development would result in permanent losses of up to c.0.1ha of semi-improved grassland and tall ruderals across the site. These areas are of relatively low ecological value and of importance at the site level only but provide habitats suitable for a number of protected species (e.g. reptiles).

**Evaluation**

- 4.3.8 Table 4.1 presents a preliminary evaluation of the habitats recorded within or adjacent to the survey area, with reference to the criteria defined at section 2.4.1. It is important to note that these preliminary evaluations may be updated following completion of more detailed botanical or protected species surveys.

**Table 4.1: Preliminary evaluation of habitats within the survey area**

Habitat	Evaluation	Rationale
Semi-improved grassland	Site	Widespread and common habitat
Dense scrub/tall ruderal mosaic	Site	Widespread and common habitat
Tall ruderal	Site	Widespread and common habitat
Broadleaf woodland	Local	Part of the Sutton at Hone Lakes LWS and priority habitat
Species-poor hedgerow	Site	Widespread and common habitat but priority habitat
Scattered trees	Site	Widespread and common habitat
Plantation woodland	Site	Widespread and common habitat

## 4.4 Species

### **Amphibians**

#### ***Great crested newt***

- 4.4.1 KMBRC returned no records of great crested newt (GCN) *Triturus cristatus* from within the desk-study search zone.
- 4.4.2 The survey area contains good quality terrestrial habitats for GCN, dominated by hay meadow with coarse grasses and variable sward height and structure which is suitable for foraging. Boundary hedgerows, scrub and brash piles/concrete refugia (TN1 and TN2) provide shelter and dispersal habitat, while nearby areas of woodland offer hibernation potential.
- 4.4.3 There are no ponds within the survey area, however an analysis of Ordnance Survey maps and aerial photography indicated that four ponds are present within 500m of the site; see Appendix II for a pond map. Pond P1 is closest to the site at c.20m south. P1 could not be accessed to assess its breeding habitat suitability due to access restrictions. Pond P2 is located on the far side of the River Darent c.30m north of the site. The River Darent is a fast flowing river which is likely to form a significant dispersal barrier for GCN. Any GCN present in P2 would not be able to access the site. All other ponds were more than 250m from the survey area; any GCN present within these ponds are more likely to use adjacent terrestrial habitats than migrate towards the survey area's sub-optimal habitat.
- 4.4.4 Research undertaken by Natural England (Cresswell & Whitworth, 2004) suggests GCN will rarely move further than 200-250m from a breeding pond, with much reduced distances recorded where adjacent habitats are of good quality. Jehle (2000) also determined a terrestrial zone of 63m, within which 95% of summer GCN refuges were located. In addition, following the breeding season, Jehle and Arntzen (2000) recorded 64% of newts within 20m of the pond edge.
- 4.4.5 Given that the proposals are very limited in extent and that no aquatic habitat exists on site, no further surveys for this species are not considered necessary. However, works on site should be undertaken in accordance with a Non-Licensed Method Statement to reduce the risk of killing/injury to GCN, as recommended at section 5.3. Most terrestrial habitat on site, including scattered trees and hedgerows, potentially suitable for shelter, hibernation or dispersal, are proposed to be retained.

#### ***Other amphibians***

- 4.4.6 Dominant habitats within the survey area such as grassland and woodland are potentially suitable terrestrial habitats for common and widespread amphibian species such as common frog *Rana temporaria*, common toad *Bufo bufo* and smooth newt *Lissotriton vulgaris* which have been recorded in the desk-study search zone. Common amphibians are not considered to present a constraint to the development proposals, but will be covered by the non-licensed method statement at section 5.3.

### **Birds (nesting)**

- 4.4.7 KMBRC returned many records of notable bird species from within the desk-study search zone during a date range of 1967 to 2019. The survey area's boundary hedgerow, trees and scrub are suitable for nesting birds such as wren *Troglodytes troglodytes*, dunnock *Prunella modularis* (an Amber-listed bird of conservation concern (BoCC4); Eaton *et al.*, 2015), robin *Erithacus rubecula* and chaffinch *Fringilla coelebs*. The semi-improved grassland could support ground-nesting species such as skylark *Alauda arvensis* (BoCC4 Red-listed) under its current low intensity management regime. Precautionary measures for nesting birds are recommended at section 5.3.

### **Invertebrates**

- 4.4.8 KMBRC returned four records of one species of protected invertebrate from within the desk-study search zone, during a date range of 1980 to 1985. These were of stag beetle *Lucanus cervus* (NERC s41 species of principal importance).
- 4.4.9 Woodland habitats, tall semi-improved grassland, tall ruderal, and scattered scrub are likely to provide moderate value habitat for a range of common and widespread invertebrates. Any deadwood within the woodland on site also provides potential habitat for saproxylic species such as stag beetle *Lucanus cervus*, however the woodland and trees are due to be retained and protected during the works. Species such as small heath *Coenonympha pamphilus*, dingy skipper *Erynnis tages* and wall *Lasiommata megera* (all NERC s41 species of principal importance) will potentially be attracted to the site's grassland which provides suitable larval host plants including cock's foot and Yorkshire fog. However, the large majority of the site's habitats will be retained and will remain unaffected by the proposals. Invertebrates are not considered to present a constraint to the development proposals and no further surveys for this group are required.

### **Mammals (terrestrial)**

#### **Badger**

- 4.4.10 KMBRC returned six records of badger *Meles meles* from within the desk-study search zone, during a date range of 2002 to 2012, the nearest record being located c.410m south-west in 2005.
- 4.4.11 The survey area provides suitable foraging habitat for badger and some sett creation potential. A search for badger setts and signs of their presence was undertaken within a 30m radius of the site boundary but did not include any adjacent private property. Sett building habitats were restricted to the margins of woodland and no setts were found. There was no observable evidence of badger activity within or around the survey area, such as badger paths, footprints, latrines, dung pits, or badger hairs caught at fence lines or evidence of foraging (snuffle holes). Due to the lack of evidence of their presence and the limited scope of the proposals, badger is not considered to present a constraint to the development proposals and no further surveys for this species are required. General ecological protection measures for badgers and other mammals are advised in section 5.4.

### **Bats**

- 4.4.12 KMBRC returned 307 records of 11 species of bat from within 5km of the survey area, during a date range of 1983 to 2020, including serotine *Eptesicus serotinus*, Daubenton's *Myotis daubentonii*, whiskered *M. mystacinus*, Natterer's *M. nattereri*, Leisler's *Nyctalus leisleri*, noctule *N. noctula*, Nathusius' Pipistrelle *Pipistrellus nathusii*, common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *P. pygmaeus* and brown long-eared *Plecotus auritus* bats. Most of these records were of bats in flight but three roost sites within 1km of the site were returned, the closest to the survey area being a maternity roost located c.413m north-east.
- 4.4.13 There were no buildings or structures within the site boundaries. No further presence/absence surveys for bats are required.
- 4.4.14 The scattered trees within the main body of the site were in good condition and did not display any features suitable for roosting bats. However, this was based on a Phase 1 walkover survey rather than a comprehensive search for potential bat roosting features. A detailed ground-level tree assessment for bats is not considered necessary due to the scope of the proposals.
- 4.4.15 The survey area's mosaic of deciduous woodland, dense scrub, scattered trees, tall ruderal and tall semi-improved grassland habitats are likely to provide abundant opportunities for foraging and commuting bats. The majority of these habitats would be retained under the proposal and it is unlikely that the boundary woodland will experience an increase in artificial lighting following development, which may otherwise render them less suitable for foraging/commuting in future. Further bat activity surveys are not required.

### **Hazel dormouse**

- 4.4.16 KMBRC returned no records of hazel dormouse *Muscardinus avellanarius* within the desk study search area.
- 4.4.17 The hedgerows and wooded boundaries around the site are potentially suitable for hazel dormouse, and are connected with further areas of woodland and hedgerow in the surrounding landscape. However, these features will remain unaffected under the proposals for the site. Food plants are present, including ash and hawthorn, but are limited in extent. Hazel dormouse is not considered to present a constraint to the development proposals and no further surveys for this species are required.

### **Water vole and otter**

- 4.4.18 KMBRC returned nine records of European water vole *Arvicola amphibius* from within the desk study search area, during a date range of 2001 to 2005. The closest was located c.117m south-east of the site in 2005.
- 4.4.19 KMBRC returned no records of otter *Lutra lutra* and two of water vole *Arvicola amphibius* within the desk study search area.
- 4.4.20 The river which runs along the eastern boundary of the survey provides potentially suitable habitat for water vole, with vegetated banksides that may be suitable for burrowing and foraging. The

river is also suitable for otter due to its size and depth. An assessment of the bankside within the survey area in order to search for signs of otter (such as spraints, tracks, feeding remains, slides, holts and couches) and water vole (such as feeding stations, droppings and latrines, burrows and nests, footprints and runways) was not undertaken as part of the site walkover as this is beyond the scope of a PEA. No evidence of either species was identified in passing, but the presence of water vole and otter cannot be ruled out. However, given the size and scope of the proposals and the distance in which works will occur from the river, the risk of killing, injury or disturbance to otter and water vole is negligible. Further surveys are not required.

### **Plants, native**

- 4.4.21 KMBRC returned 100 records of 51 protected botanical species from within the desk-study search zone during a date range of 1842 to 2019.
- 4.4.22 One instance of pyramidal orchid *Anacamptis pyramidalis* was recorded at the eastern edge of the semi-improved grassland field. This species is protected under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), which affords it protection against possession, transport and trade. No other rare or protected species of flora were recorded within the survey area, but the time of year may have resulted in botanical species being under recorded due to the advanced growth of grasses. Given the scale of the proposal, the small size of the area affected which is located away from the location in which the orchid was found, and the intention to retain the majority of the grassland as low-intensity grazed pasture, no further botanical surveys are considered necessary.

### **Plants – invasive non-native species and injurious weeds**

- 4.4.23 Winter heliotrope *Petasites fragrans* is an invasive non-native species (but not listed on Schedule 9 of the Wildlife and Countryside Act) and was noted in the south-west corner of the site, by the apple trees. Control measures are advised to prevent this species spreading into the wild; see section 5.4.
- 4.4.24 Ragwort *Senecio jacobea*, a potentially injurious weed, was noted but not in any significant amounts.

### **Reptiles (terrestrial)**

- 4.4.25 KMBRC returned 12 records of terrestrial reptile species from within the desk-study search area, during a date range of 1987 to 2014. Three of the four widespread species have been recorded in the vicinity; slow worm *Anguis fragilis*, grass snake *Natrix natrix* and common lizard *Zootoca vivipara*. The closest record to the site was a common lizard located c.220m east in 2007.
- 4.4.26 The survey area contains good quality habitats for reptiles, dominated by rough semi-improved grassland with a variable sward height and structure which is suitable for foraging. Boundary hedgerows, scrub and refugia (TN1 and TN2) provide shelter and dispersal habitat, while nearby areas of woodland offer hibernation potential. It is considered likely that construction works would involve partial clearance of vegetation within the footprint of the development, i.e. creation of an access track, parking area and stables. Vehicle movements and groundworks could also damage and disturb the grassland habitat. Taken together, these present a risk of killing or injury

for reptiles if present within the survey area. However, given the limited scale of the development and that the majority of the on-site habitat will remain unaffected and in a suitable condition for reptiles, the risk of killing or injuring reptiles at the site can be managed under a non-licensed method statement, as recommended in Section 5.3.

**Other protected, rare or notable species**

- 4.4.27 KMBRC returned 10 records of hedgehog *Erinaceus europaeus* from within the desk-study search zone during a date range of 1966 to 2000. No accurate grid references were given for these records so it cannot be said how close these records are to the site. The survey area contains habitats suitable for this species, including grassland, hedgerow and scrub. Hedgehog is listed as a species of principal importance under the NERC Act 2006 and is undergoing a significant population decline.

## 5 Recommendations

### 5.1 Introduction

5.1.1 With regard to the objectives of this Preliminary Ecological Appraisal, recommendations are made below for the protection of important ecological features, and/or to avoid or mitigate ecological impacts, and to enhance the ecology of the site post-construction with the aim of contributing towards net gains for biodiversity. The recommendations should be included in the design and development proposals so that protection of important ecological features is secured and opportunities for ecological enhancement are realised. The recommendations should be reviewed following the completion of further ecological surveys.

### 5.2 Botanical or Protected Species Surveys

5.2.1 There is no requirement to undertake further botanical or protected species surveys prior to submitting a planning application.

### 5.3 Precautionary Measures

5.3.1 The following species/groups (Table 5.1) require specific precautionary measures to be adhered to prior to and during construction to ensure that an offence under the relevant legislation is avoided.

**Table 5.1: Recommended precautionary measures**

#	Recommended precautionary measures
R1	Vegetation clearance works in the construction footprint will be undertaken in accordance with a Non-Licensed Method Statement to reduce the risk of killing/injury to great crested newt. The Method Statement will specify reasonable avoidance measures including timing restrictions (works to be carried out during the GCN active season, March to October), progressive reduction of vegetation height to displace any newts present into suitable surrounding areas of retained habitat, and will be carried out under the supervision of a suitably qualified ecologist. Once vegetation removal is complete, the site will be maintained in an unsuitable condition to prevent recolonisation.
R2	Removal of nesting bird habitats (including ground vegetation and buildings) will be undertaken outside of the bird nesting season, which runs from 1 March to 31 August. It will therefore be carried out between September and February.  Any construction works undertaken within the bird breeding season where suitable bird breeding habitat exists will require a site check for nesting birds by a suitably qualified ecologist. This will take place no more than two days prior to works commencing. This is to ensure that no disturbance to active bird nests occurs. If a nest is found it must be cordoned



#	Recommended precautionary measures
	off and works adjacent to the nest must be delayed until such time that the chicks have fledged from the nest. This will be supervised by a suitably qualified ecologist.
<b>R3</b>	Vegetation clearance works in the construction footprint will be undertaken in accordance with a Precautionary Working Method Statement to reduce the risk of killing/injury to reptiles. The Method Statement will specify reasonable avoidance measures including timing restrictions (works to be carried out during the reptile active season, broadly March/April to September/October), progressive reduction of vegetation height to displace any reptiles present and will be carried out under the supervision of a suitably qualified ecologist. Once vegetation removal is complete, the site will be maintained in unsuitable condition to prevent recolonisation.

## 5.4 Ecological Protection Measures

5.4.1 The following protection measures (Table 5.2) will be carried out as part of the proposed scheme.

**Table 5.2: Recommended ecological protection measures**

#	Recommended ecological protection measures
<b>R4</b>	Areas of deciduous woodland and hedgerow priority habitat within the survey area are of high intrinsic ecological value and provide habitats suitable for a range of protected species, including amphibians, nesting birds, invertebrates, badger, bats, hazel dormouse and reptiles. These habitats will be retained, avoided and protected during construction.
<b>R5</b>	British Standard BS 5837:2012 and/or National Joint Utilities Group Guidelines (NJUG, 1995) will be followed at all times during construction when working in close proximity to trees or shrubs which are to be retained. According to NJUG Guidelines the root protection zone or precautionary area is 4x the circumference of the trunk (circumference is measured around the trunk at a height of 1.5m above ground level). The distance is measured from the centre of the trunk to the nearest part of any excavation or other work. If a separate tree survey is carried out for the proposed development, works will be undertaken in accordance with the recommendations therein.
<b>R6</b>	Winter heliotrope is present in the south-eastern corner of the proposed development site. This species is invasive and spreads to form dense stands that exclude other vegetation. A method statement will be prepared to ensure adequate control measures are adopted during construction to prevent it spreading from the site.
<b>R7</b>	The use of external lighting will be avoided or reduced to the minimum required for its intended purpose, during both construction and operation. This will be of benefit to nocturnal species e.g. bats. Where external lighting is to be provided, it will be low-level, directional lighting with minimal spill and glare, and consideration will be given to reduced hours of operation and/or a movement responsive system of control. Use narrow-spectrum bulbs and light sources that emit minimal UV light, avoiding white and blue wavelengths of the spectrum. Use glass lantern covers instead of plastic to filter UV light. Lighting will not be directed towards the boundary hedgerows or Sutton at Hone Lakes LWS to the east.

## 5.5 Recommendations for Ecological Enhancement

5.5.1 The following ecological enhancements (Table 5.3) should be considered for the site to contribute towards net gains for biodiversity in line with the requirements of local and national policy and guidance.

**Table 5.3: Preliminary recommendations for ecological enhancement**

#	Preliminary recommendations for ecological enhancement
<b>R8</b>	Habitat piles will be created within areas of retained rough grassland or marginal vegetation, at the edges of the site close to boundary hedgerows and woodland. These will provide additional hibernation and shelter resources for amphibians, invertebrates, reptiles, and a range of other wildlife, and egg-laying substrate for grass snakes. Hibernacula can be created by partially burying logs and stones in sheltered areas away from flood risk and covering over with earth or turf. Breeding habitats can be created by collecting grass clippings and other prunings arising from landscape management of the site and composting them in a secluded corner of the site, again away from flood risk. Deadwood piles can be created using arisings from site clearance to provide shelter and breeding opportunities for invertebrates, particularly saproxylic species which are dependent on deadwood.
<b>R9</b>	The value of the site for birds will be enhanced by installing a range of artificial nest boxes. These will be placed on retained mature trees at the site boundaries. For instance: <ul style="list-style-type: none"> <li>▪ Trees: nest boxes with entrance holes suitable for tit species, woodpeckers and nuthatches, and open-fronted boxes suitable for spotted flycatcher <i>Muscicapa striata</i> or song thrush <i>Turdus philomelos</i>, and treecreeper <i>Certhia familiaris</i> boxes.</li> <li>▪ Artificial nest boxes for kestrel <i>Falco tinnunculus</i>, barn owl <i>Tyto alba</i> and tawny owl <i>Strix aluco</i> can be erected in undeveloped areas, with appropriate habitat management regimes adopted to create areas/corridors of wildflower meadow as foraging habitat for these species.</li> </ul>
<b>R10</b>	The value of the site for bats will be enhanced by installing a range of artificial roost boxes. These will be placed on retained mature trees at the site boundaries. Boxes suitable for a range of species should be used, for instance: <ul style="list-style-type: none"> <li>▪ Pipistrelles: bat boxes suitable to install on mature trees at the edges of the development include the Schwegler 1FF Flat Bat Box, or other manufacturer's equivalent.</li> <li>▪ Noctules <i>Nyctalus spp.</i> and brown long eared bats <i>Plecotus auritus</i>: bat boxes suitable to install on mature trees at the edges of the development include the Schwegler 2F General Purpose Bat Box or the 2FN Woodland Bat Box, or other manufacturer's equivalent.</li> <li>▪ Bat boxes should ideally be located south-facing (between south-east and south-west) and above 4m from ground level. They should be installed facing vegetation features such as mature hedgerows or trees, but with a clear line of flight for bats exiting the roost, and away from sources of artificial light.</li> </ul>

## 6 Conclusions

- 6.1.1 The land proposed for development is of relatively low ecological value. Significant constraints were identified in the wider site, including priority habitats, an adjacent Local Wildlife Site and the potential presence of great crested newt, nesting birds and reptiles. However, given the limited size and impact of the proposed development and that the large majority of the site will remain unaffected, further ecological surveys are not required prior to submitting a planning application. Precautionary and ecological protection measures are required to enable offences under the relevant legislation to be avoided. Recommendations are also made for ecological enhancement.

## References and Bibliography

Amphibian and Reptile Groups of the UK (ARG UK; 2010): *Advice Note 5: Great Crested Newt Habitat Suitability Index*. Adapted from Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). *Herpetological Journal* **10**(4), 143-155.

Biggs J, Ewald N, Valentini A, Gaboriaud C, Griffiths RA, Foster J, Wilkinson J, Arnett A, Williams P and Dunn F (2014): *Analytical and methodological development for improved surveillance of the Great Crested Newt. Appendix 5. Technical advice note for field and laboratory sampling of great crested newt (Triturus cristatus) environmental DNA*. Freshwater Habitats Trust, Oxford.

Botanical Society of the British Isles (2004): *UK Plant List*.

Bright P., Morris P. and Mitchell-Jones T. (2006): *The Dormouse Conservation Handbook; Second Edition*. English Nature, Peterborough.

British Standards Institution (BSI; 2012): *BS5837:2012 Trees in relation to Design, Demolition and Construction - Recommendations*. BSI Standards Limited, London.

British Standards Institution (BSI; 2013): *BS42020:2013 Biodiversity – Code of practice for planning and development*. BSI Standards Limited, London.

Chanin P. (2003): *Ecology of the European Otter*. Conserving Natura 2000 Rivers Ecology Series No. 10. English Nature, Peterborough.

Chartered Institute of Ecology and Environmental Management (CIEEM, 2017a): *Guidelines for Ecological Report Writing*. 2<sup>nd</sup> Edition, CIEEM, Winchester.

CIEEM (2017b): *Guidelines for Preliminary Ecological Appraisal*. 2<sup>nd</sup> Edition, CIEEM, Winchester.

CIEEM (2018): *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. CIEEM, Winchester. Version 1.1, updated September 2019.

Collins, J. (ed.) (2016): *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. 3<sup>rd</sup> Edition, Bat Conservation Trust, London.

Dean M., Strachan R., Gow D. and Andrews R. (2016): *The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series)*. Eds. Fiona Matthews and Paul Chanin. The Mammal Society, London.

Defra (2007): *Hedgerow Survey Handbook*. Department for Environment, Food and Rural Affairs.

Dobson JR (2011): *A Methodology for Rapid Preliminary Assessment of Invertebrate Habitat Quality Potential in the course of Extended Phase 1 Habitat Survey*. Version 1.0. Unpublished Consultation Draft.

Drake, C.M., Lott, D.A., Alexander, K.N.A. & Webb, J. (2007): *Surveying terrestrial and freshwater invertebrates for conservation evaluation*. Natural England Research Report NERR005, Natural England, Sheffield.

Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015): Birds of Conservation Concern 4 ("BoCC4"): the population status of birds in the United Kingdom, Channel Islands and Isle of Man. *British Birds* **108**, 708–746.

English Nature (2001): *Great Crested Newt Mitigation Guidelines*. English Nature, Peterborough.

Environment Agency (2007): *Pollution Prevention Guidelines 5 – Works and Maintenance in or Near Water*.

Froglife (1999): *Reptile Survey: An Introduction to planning, conducting and interpreting surveys for snake and lizard conservation*. Froglife Advice Sheet 10, Froglife, Halesworth.

Froglife (2001): *Surveying for Great Crested Newt Conservation*. Froglife Advice Sheet 11, Froglife, Halesworth.

Gent, A.H. and Gibson, S.D., eds. (2003): *Herpetofauna Workers' Manual*. Joint Nature Conservation Committee, Peterborough.

Gilbert G., Gibbons D.W. and Evans J. (1998): *Bird Monitoring Methods*. RSPB, Sandy, Beds.

Gunnel K., Grant, G. and Williams, C. (2012): *Landscape and Urban Design for Bats and Biodiversity*. Bat Conservation Trust.

Gunnel K, Murphy B, Williams C (2013): *Designing for biodiversity: A technical guide for new and existing buildings*. RIBA Publishing and Bat Conservation Trust.

Harris S., Cresswell P. and Jefferies D. (1989): *Surveying Badgers*. Mammal Society, London.

Hill, D., Fasham, M., Tucker, G., Shrewry, M. and Shaw, P(eds) (2005): *Handbook of Biodiversity Methods: Survey, Evaluation and Monitoring* (4th edition). Cambridge University Press, Cambridge.

Institute of Lighting of Professionals (2018): *Guidance Note 08/18: Bats and artificial lighting in the UK*. Co-authored by the Bat Conservation Trust, September 2018.

Joint Nature Conservation Committee (2010): *Handbook for Phase 1 Habitat Survey. A Technique for Environmental Audit*, Joint Nature Conservation Committee, Peterborough.

Langton, T.E.S., Beckett, C.L., and Foster, J.P. (2001): *Great Crested Newt Conservation Handbook*, Froglife, Halesworth.

Maddock A. (ed.) (2008): *UK Biodiversity Action Plan: Priority Habitat Descriptions*. UK Biodiversity Reporting and Information Group. Updated December 2011.

Ministry for Housing, Communities & Local Government (MHCLG; 2019): *National Planning Policy Framework*.

Multi-agency Geographic Information for the Countryside (MAGIC) ([www.magic.gov.uk](http://www.magic.gov.uk))

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National Joint Utilities Group (April 1995): *Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees*.

Natural England (2011): *Badgers and Development: A guide to best practice and licensing*. Interim Guidance.

NetRegs (2017): *Guidance for Pollution Prevention 5: Works and Maintenance in or Near Water*. NRW, NIEA and SEPA regulatory guidance, available online: <http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/>

Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000): Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). *Herpetological Journal* **10**(4), 143-155.

Peay S. (2000): *Guidance on works affecting White-clawed Crayfish*. Report to English Nature.

Rodwell J.S. (2006): *National Vegetation Classification: Users' Handbook*. Joint Nature Conservation Committee, Peterborough.

Roper TJ (1992): Badger *Meles meles* setts—architecture, internal environment and function. *Mammal Review* **22** (1), 43–53.

Rose F., revised and updated by O'Reilly C. (2006): *The Wild Flower Key*. Penguin, London.

Snow D.W. & Perrins C.M. (1998): *Birds of the Western Palearctic: Concise Edition*. Oxford University Press.

# Appendix I: Phase 1 Habitats Plan

Please see insert.

# An Teachin Hawley road Dartford

-  Survey area
-  Broadleaved woodland
-  Orchard
-  Dense scrub
-  Dense scrub / Tall ruderal moasic
-  SI Semi-improved grassland
-  Tall ruderal
-  Building
-  Species-poor hedgerow
-  Fence
-  Scattered tree
-  Target note



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Ordnance Survey 0100031673

Scale: 1:1,050      Created by: AD  
Date: Jul2021      Reviewed by: NP  
Drawing number:  
UE0462ECO-Phase1\_210720










## Appendix II: Pond Plan

Please see insert.

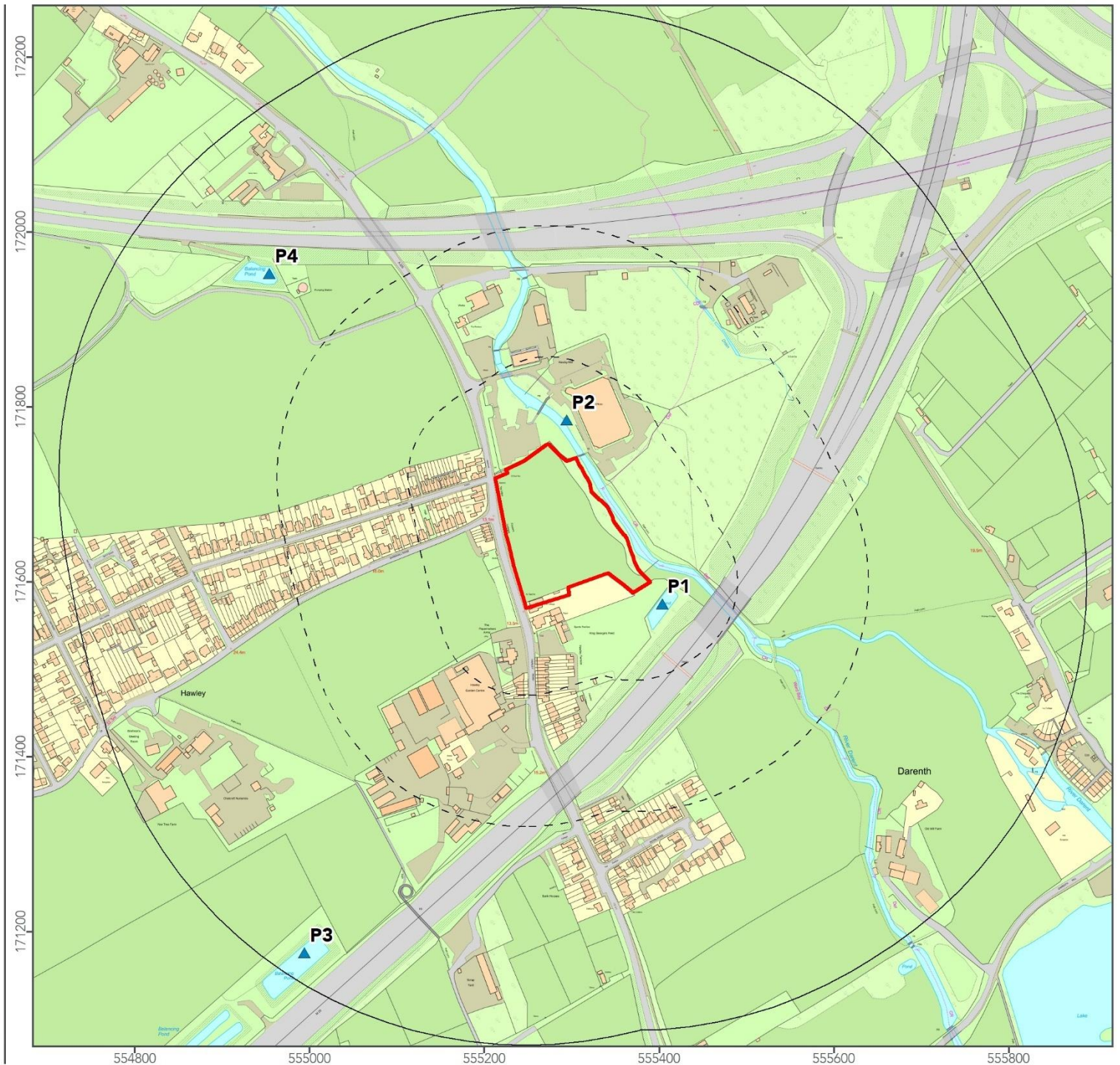
# An Teachin Hawley road Dartford

-  Survey area
-  100m buffer
-  250m buffer
-  500m buffer
-  Pond numbers



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Ordnance Survey 0100031673

Scale: 1:6,400      Created by: AD  
Date: Jul 2021      Reviewed by: NP  
Drawing number:  
UE0462ECO-Ponds\_210720



## Appendix III: Legislation and Planning Context

### Legislation

#### *General*

The main legislative instruments for ecological protection in England and Wales are the Wildlife and Countryside Act 1981 (WCA; as amended), Countryside and Rights of Way Act 2000 (CRoW; as amended), Natural Environment and Rural Communities Act 2006 (NERC) and the Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations; as amended). The Environment Bill (reintroduced to parliament in 2020) is expected to make significant changes to the legislative provisions when enacted.

WCA 1981 consolidated and amended pre-existing national wildlife legislation in order to implement the Bern Convention and the Birds Directive. It complements the Habitats Regulations, offering protection to a wider range of species than the latter. The Act also provided for the designation and protection of nationally important conservation sites of value for their floral, faunal or geological features, termed Sites of Special Scientific Interest (SSSI). Schedules of the act list protected species of flora and fauna, as well as invasive species, and detail the possible offences that apply to these species.

The CROW Act 2000 amended and strengthened existing wildlife legislation detailed in the WCA. It placed a duty on government departments & the National Assembly for Wales to have regard for biodiversity, provided increased powers for the protection and maintenance of SSSI, and created a right of access to parts of the countryside. The Act contained 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 NERC Act 2006 consolidated and replaced aspects of earlier legislation. Section 40 of the Act places a duty upon all local authorities and public bodies in England and Wales to have regard to the purpose of conserving biodiversity in exercising all of their functions, including by restoring or enhancing habitats and species populations. Sections 41 (England) and 42 (Wales) list habitats and species of principal importance to the conservation of biodiversity (otherwise known as priority habitats/species as listed in the now superseded UK Biodiversity Action Plan). These lists supersede Section 74 of the CRoW Act 2000. These species and habitats are a material consideration in the planning process.

The Habitats Regulations 2017 consolidate and update the Conservation of Habitats and Species Regulations 2010 and all its various amendments. The Regulations are the principal means by which Council Directive 92/43/EEC (The Habitats Directive) is transposed into English and Welsh law, and place a duty upon the relevant authority of government to identify sites which are of importance to the habitats and species listed in Annexes I and II of the Habitats Directive. Those sites which meet the criteria are, in conjunction with the European Commission, designated as Sites of Community Importance, which are subsequently identified as Special Areas of Conservation (SAC) by the European Union member states.

The Habitats Regulations also place a duty upon the government to maintain a register of European protected sites designated as a result of Council Directive 2009/147/EC on the Conservation of Wild Birds (The Birds Directive). These sites are termed Special Protection Areas (SPA) and, in conjunction with SACs, form a network of sites known as Natura 2000. The Habitats Directive introduces for the first time for protected areas, the precautionary principle; that is that

projects can only be permitted having ascertained no adverse effect on the integrity of the site. Projects may still be permitted if there are no alternatives, and there are imperative reasons of overriding public interest.

The Habitats Regulations also provide for the protection of individual species of fauna and flora of European conservation concern listed in Schedules 2 and 5 respectively (European Protected Species (EPS)). Schedule 2 includes species such as otter and great crested newt for which the UK population represents a significant proportion of the total European population. It is an offence to deliberately kill, injure, disturb or trade in these species. Schedule 5 plant species are protected from unlawful destruction, uprooting or trade under the regulations. Under the Habitats Regulations disturbance includes any activity which is likely to: impair the ability of a EPS to survive, breed, reproduce, or rear/nurture its young; impair the ability of a EPS to migrate or hibernate; or significantly affect the local distribution or abundance of the species.

When enacted, the Environment Bill is expected, among other things, to: establish an Office for Environmental Protection; require all new development requiring planning permission to achieve a net gain for biodiversity (expected to be at least 10%); amend the NERC Act duty to conserve biodiversity by explicitly adding a duty to enhance; and require local authorities to produce local nature recovery strategies.

#### ***Badgers (Meles meles)***

Badgers are listed under Schedule 6 of the Wildlife and Countryside Act which grants them partial protection. This protection is extended by the Protection of Badgers Act 1992 (Badger Act) which makes it an offence to take, injure or kill a badger, interfere with a sett, sell or possess a live badger, or mark or ring a badger without a licence. Under the Act disturbance is illegal without a licence. Natural England has published guidelines to be adopted when determining whether an activity is 'disturbing' i.e. a licence is required when, for example, using heavy machinery (generally tracked vehicles) within 30m of any entrance to an active sett. Licences are not normally issued during the badger breeding season (December – June inclusive).

#### ***Bats (Chiroptera)***

Bats and their roosts are fully protected by protected by the WCA and the Habitats Regulations, and seven species of bats are species of principal importance. The legislation makes it an offence, *inter alia*, to:

- ▶ Intentionally kill, injure or take a bat.
- ▶ Possess or control a live or dead bat, any part of a bat, or anything derived from a bat.
- ▶ Intentionally or recklessly damage, destroy or obstruct access to any structure or place that a bat uses for shelter or protection. This is taken to mean all bat roosts whether bats are present or not.
- ▶ Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection.
- ▶ Make a false statement in order to obtain a licence for bat work.

#### ***Birds***

Birds are protected by the Wildlife and Countryside Act, 1981 (as amended). This legislation makes it an offence to intentionally kill, injure or take away any wild bird. It is also an offence to take, damage or destroy the nest of any wild bird while it is in use or being built or to take or destroy the egg of any wild bird. In addition, certain species are listed on Schedule 1 of the WCA (such as kingfisher *Alcedo atthis*). This makes it an additional offence to intentionally or recklessly disturb the adults while they are in and around their nest or intentionally or recklessly disturb their dependent young. Such species are considered to be in greater need of legal protection or of high nature conservation priority.

Birds of Conservation Concern ("BoCC4) are included on Red and Amber lists (Eaton *et al.*, 2015). Birds on the Red list are those of highest conservation priority due significant and sustained population decreases and/or range contractions (e.g. house sparrow *Passer domesticus* and starling *Sturnus vulgaris*). Birds on the Amber list are the next most critical group and include species whose population/range have shown moderate declines, or which have recovered to some extent from historical decline, such as dunnock *Prunella modularis*.

#### **Dormouse (*Muscardinus avellanarius*)**

Dormouse is fully protected by the WCA and the Habitats Regulations. The legislation makes it an offence, *inter alia*:

- ▶ Intentionally kill, injure or take a dormouse.
- ▶ Possess or control a live or dead dormouse, any part of, or anything derived from a dormouse.
- ▶ Intentionally or recklessly damage, destroy or obstruct access to any structure or place that a dormouse uses for shelter or protection.
- ▶ Intentionally or recklessly disturb a dormouse while it is occupying a structure or place that it uses for shelter or protection.

#### **Great crested newt (*Triturus cristatus*; GCN) (and natterjack toad *Bufo calamita*)**

GCN is fully protected by the WCA and the Habitats Regulations. The legislation makes it an offence, *inter alia*, to:

- ▶ Intentionally kill, injure or take a GCN (including its eggs).
- ▶ Possess or control a live or dead GCN, any part of, or anything derived from a GCN.
- ▶ Intentionally or recklessly damage, destroy or obstruct access to any structure or place that a GCN uses for shelter or protection.
- ▶ Intentionally or recklessly disturb a GCN while it is occupying a structure or place that it uses for shelter or protection.

#### **Otter (*Lutra lutra*)**

Otter is fully protected by the WCA and the Habitats Regulations. The legislation makes it an offence, *inter alia*, to:

- ▶ Intentionally kill, injure or take an otter.
- ▶ Possess or control a live or dead otter, any part of, or anything derived from an otter.
- ▶ Intentionally or recklessly damage, destroy or obstruct access to any structure or place that an otter uses for shelter or protection.
- ▶ Intentionally or recklessly disturb an otter while it is occupying a structure or place that it uses for shelter or protection.

#### **Reptiles**

The four common species (slow-worm *Anguis fragilis*, common lizard *Zootoca vivipara*, adder *Vipera berus* and grass snake *Natrix natrix*) are partially protected under the WCA. They are protected, *inter alia*, against intentional killing and injuring. The handling and translocation of these reptiles does not require a licence.

Smooth snake *Coronella austriaca* and sand lizard *Lacerta agilis* are fully protected by the WCA and the Habitats Regulations. The legislation makes it an offence, *inter alia*, to:

- ▶ Intentionally kill, injure or take a smooth snake or sand lizard.
- ▶ Possess or control a live or dead smooth snake or sand lizard, any part of, or anything derived from a smooth snake or sand lizard.
- ▶ Intentionally or recklessly damage, destroy or obstruct access to any structure or place that a smooth snake or sand lizard uses for shelter or protection.
- ▶ Intentionally or recklessly disturb a smooth snake or sand lizard while it is occupying a structure or place that it uses for shelter or protection.

#### **Water vole (*Arvicola amphibious*)**

Water vole is fully protected by the WCA. The legislation makes it an offence, *inter alia*, to:

- ▶ Intentionally kill, injure or take a water vole.
- ▶ Possess or control a live or dead water vole, any part of, or anything derived from a water vole.
- ▶ Intentionally or recklessly damage, destroy or obstruct access to any structure or place that a water vole uses for shelter or protection.
- ▶ Intentionally or recklessly disturb a water vole while it is occupying a structure or place that it uses for shelter or protection.

#### **Weeds Act 1959 / Ragwort Control Act 2003**

This legislation provides for orders to be made for control where notifiable weed species such as ragwort are said to be a problem. The act does not make it illegal to have ragwort (or other weed species) on your land, make it illegal to allow ragwort to spread, or force landowners automatically to control it. However, if DEFRA is satisfied that there are injurious weeds to which this Act applies growing upon any land it may serve upon the occupier of the land a notice in writing requiring them, within the time specified in the notice, to take such action as may be necessary to prevent the weeds from spreading.

#### **Planning context**

##### ***National Planning Policy Framework (Section 15: Conserving and enhancing the natural environment)***

The National Planning Policy Framework (NPPF), published in July 2021, outlines the Government's commitment to the conservation of wildlife and natural features. It is concerned with:

- ▶ Protecting and enhancing valued landscapes, sites of biodiversity or geological conservation value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- ▶ Recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- ▶ Maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- ▶ Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current & future pressures;
- ▶ Preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development

should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

- ▶ Remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

The NPPF requires that local plans should “distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value...; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries”.

To protect and enhance biodiversity and geodiversity, the NPPF states that planning policies should:

- ▶ Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity, wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- ▶ Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

When determining planning applications, local planning authorities should aim to protect and enhance biodiversity by applying the following principles:

- ▶ 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 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;
- ▶ 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.

The following wildlife sites should be given the same protection as habitats sites:

- ▶ potential Special Protection Areas and possible Special Areas of Conservation;
- ▶ listed or proposed Ramsar sites; and
- ▶ sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site. The policies within the NPPF (and additional guidance contained within Circular 06/2005) are a material planning consideration.

#### ***UK/Local Biodiversity Action Plan Designations and Birds of Conservation Concern and Red Data Book Listings***

Note that BAP designations and status as RSPB Birds of Conservation Concern or Red Data Book species does not offer any further legal protection, but planning authorities are required to prevent these species from being adversely affected by development in accordance with National Planning Policy and the CROW and NERC Acts. The United Kingdom Biodiversity Action Plan (UKBAP), first published in 1994 and updated in 2007, was a government initiative designed to implement the requirements of the Convention of Biological Diversity to conserve and enhance species and habitats. The UKBAP contained a list of priority habitats and species of conservation concern in the UK, and outlined biodiversity initiatives designed to enhance their conservation status.

However, as a result of devolution, and new country-level and international drivers and requirements, much of the work previously carried out by the UK BAP is now focussed at a country-level rather than a UK-level, and the UK BAP was succeeded by the 'UK Post-2010 Biodiversity Framework' in July 2012. The UK lists of priority habitats and species nonetheless remain an important reference source and were used to draw up statutory lists of priority habitats and species in England, Northern Ireland, Scotland and Wales. The priority habitats and species correlate with those listed on Section 41 and 42 of the NERC Act.

The UKBAP required that conservation of biodiversity be addressed at a County level through the production of Local BAPs. These are targeted towards species of conservation concern characteristic of each area. In addition, a number of local authorities and large organisations have produced their own BAPs. Where they exist, Local BAP targets with regard to species and habitats are a material consideration in the planning process.

#### ***Local Planning Policy***

##### Policy DP25: Nature Conservation and Enhancement

1. Development on the hierarchy of designated sites, featuring nationally recognised and locally protected sites, shown on the Policies Map will not be permitted. Development located within close proximity to designated sites, or with likely effects on them, should demonstrate that the proposal will not adversely impact on the features of the site that define its value or ecological pathways to the site.
2. Proposals should seek to avoid any significant adverse impact on existing biodiversity features. Any potential loss or adverse impact must be mitigated, including with reference to the following guidance points:
  - a. Where mitigation measures require relocation of protected species this will only be acceptable when accompanied by clear evidence that the proposed method is appropriate and will provide for successful translocation.
  - b. Proposals should include provision for protection during construction, and mechanisms for on-going management and monitoring.
3. Developments will be expected to preserve and, wherever possible, enhance existing habitats and ecological quality, including those of water bodies, particularly where located in Biodiversity Opportunity Areas.



Particular regard should be had to points a) and b) below. Development proposals where the primary purpose is to enhance biodiversity will normally be permitted where:

- a. New biodiversity areas make use of native and local species as set out in the Kent Biodiversity Strategy and consider ecological links and adaptability to the effects of climate change
- b. Biodiversity features strengthen existing green and ecological corridors; and contribute to the creation and enhancement of the Green Grid.

#### Large residential development and North Kent European Protected Sites

4. Large residential developments located within 10km from the North Kent European Protected sites that are located outside the Borough will be required to undertake a Habitats Regulation Assessment to demonstrate that the mitigation measures proposed are satisfactory to avoid potential adverse recreational effects to protected features. Information on mitigation options is available on the Council's website.

#### Trees

5. In all development proposals existing trees should be retained wherever possible. If retention is demonstrated not to be feasible, replacement provision should be of an appropriate tree species and maturity and/ or canopy cover taking into account the tree that is being replaced and the location.

## Appendix IV: Legal and Technical Limitations

- This report has been prepared by Urban Edge Environmental Consulting Ltd (UEEC Ltd) with all reasonable skill, care and diligence within the terms of the contract made with the Client to undertake this work, and taking into account the information made available by the Client. No other warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by us.
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- The advice provided in this report does not constitute legal advice. As such, the services of lawyers may also be considered to be warranted.
- Unless otherwise stated in this report, the assessments made assume that the sites and facilities that have been considered in this report will continue to be used for their current planned purpose without significant change.
- All work carried out in preparing this report has utilised and is based upon UEEC Ltd's current professional knowledge and understanding of current relevant UK standards and codes, technology and legislation. Changes in this legislation and guidance may occur at any time in the future and may cause any conclusions to become inappropriate or incorrect. UEEC Ltd does not accept responsibility for advising the Client or other interested parties of the facts or implications of any such changes;
- Where this report presents or relies upon the findings of ecological field surveys (including habitat, botanical or protected/notable species surveys), its conclusions should not be relied upon for longer than a maximum period of two years from the date of the original field surveys. Ecological change (e.g. colonisation of a site by a protected species) can occur rapidly and this limitation is not intended to imply that a likely absence of, for instance, a protected species will persist for any period of time;
- This report has been prepared using factual information contained in maps and documents prepared by others. No responsibility can be accepted by UEEC Ltd for the accuracy of such information;
- Every effort has been made to accurately represent the location of mapped features, however, the precise locations of features should not be relied upon;
- Populations of animals and plants are often transient in nature and a single survey visit can only provide a general indication of species present on site. Time of year when the survey was carried out, weather conditions and other variables will influence the results of an ecological survey (e.g. it is possible that some flowering plant species which flower at other times of the year were not observed). Every effort has been made to accurately note indicators of presence of protected, rare and notable species within and adjacent to the site but the possibility nonetheless exists for other species to be present which were not recorded or otherwise indicated by the survey;
- Any works undertaken as a consequence of the recommendations provided within this report should be subjected to the necessary health & safety checks and full risk assessments.

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