



**Ecological Walkover Assessment and  
Protected Species Survey –  
Cheshunt Football Club, The Stadium, Theobalds Lane,  
Cheshunt, Herts, EN8 8RU**



Conducted by EBS on behalf of Cheshunt Football Club.

**Ecological Appraisal**

**REV 1: August 2015**  
**REV 2: February 2017**

ECOLOGICAL APPRAISAL – Cheshunt Football Club August 2015 Rev: 2 Feb 2017

**Proposed Cheshunt Sports Village Development–  
Cheshunt Football Club, The Stadium, Theobalds Lane,  
Cheshunt, Herts, EN8 8RU**

August 2015  
Ref. EBS Cheshunt 0815 REV 1

February 2017  
Ref: EBS Cheshunt 0217 REV 2

## SUMMARY

This report presents the results of an ecological appraisal that has been undertaken for features associated with **land at – Cheshunt Football Club, The Stadium, Theobalds Lane, Cheshunt, Herts, EN8 8RU**

The area of interest currently consists of football stadia, parking facilities, playing pitches and an area of bare ground. An initial ecological appraisal was conducted of the area in 2012 by Environmental Business Solutions and found the area to be of low ecological value. However; due to changes in the plans to develop the site into a sports village, the project has been delayed and the initial report is now out of date and a new ecological assessment was required in 2015.

The scope of survey and assessment has included consideration of: **a)** statutory and non-statutory designations; **b)** vegetation and plant species; **c)** protected species of fauna; and **d)** species and habitats of principal importance, as listed in Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

However, due to discussions with Matt Dodds, Senior Planning & Biodiversity Officer, Herts & Middlesex Wildlife Trust, a revised report has been issued to address concerns raised.

As summarised in **Section 4**, the results to date have shown that there are few ecological considerations and that there are no requirements for further surveys at present.

## 1. INTRODUCTION

### 1.1 Overview

In August 2015, Environmental Business Solutions was commissioned to undertake an ecological appraisal of land at – Cheshunt Football Club, The Stadium, Theobalds Lane, Cheshunt, Herts, EN8 8RU.

The ecology work was requested due to changes from the original proposals to develop the land into training facilities to creating Cheshunt Sports Village. Plans showing the proposed scheme were presented to EBS with the commission. For the purpose of the ecological appraisal and the preparation of this report a red-line boundary was used to denote the extent of the project (see appended Figures). Throughout this report, the land encompassed by the red-line is hereafter termed '**the Site**' or '**the Application Site**'.

### 1.2 Objectives

EBS identified the objectives of the preliminary ecological appraisal to be as follows:-

- Ascertain the presence or absence of statutory and non-statutory ecological designations within and around the red-line boundary of the Application Site.
- Investigate all vegetation and habitat types, in accord with the JNNC guidelines<sup>1</sup> and compile one or more plant species lists where appropriate.
- Identify any occurrences of rare and/or protected plant species and also any non-native invasive plant species as listed on Schedule 9 of the *Wildlife and Countryside Act 1981 (WCA 1981)*.
- Using aforementioned plant species lists, identify Phase 1 survey habitats and 'habitats of principal importance' under the NERC Act 2006.
- Undertake habitat appraisal for protected species such as: roosting, commuting & foraging bats; Badger; Water vole; Great crested newt and Schedule 1 birds, additionally with presence/absence survey work where appropriate and seasonally achievable.
- Undertake habitat appraisal and preliminary survey work in relation to other wildlife, such as breeding birds and 'species of principal importance' listed in the NERC Act 2006.
- From the survey results, identify any ecological concerns or constraints and any further survey requirements, plus provide preliminary feedback on appropriate mitigation and compensation measures to avoid impacts on protected species and other local wildlife and put in place measures to ensure the delivery of the above measures.
- Use of the Biodiversity Impact Calculator (Environmental Bank 2015) to calculate any net loss or gain to biodiversity.

Fig 1. Development Site in wider area.

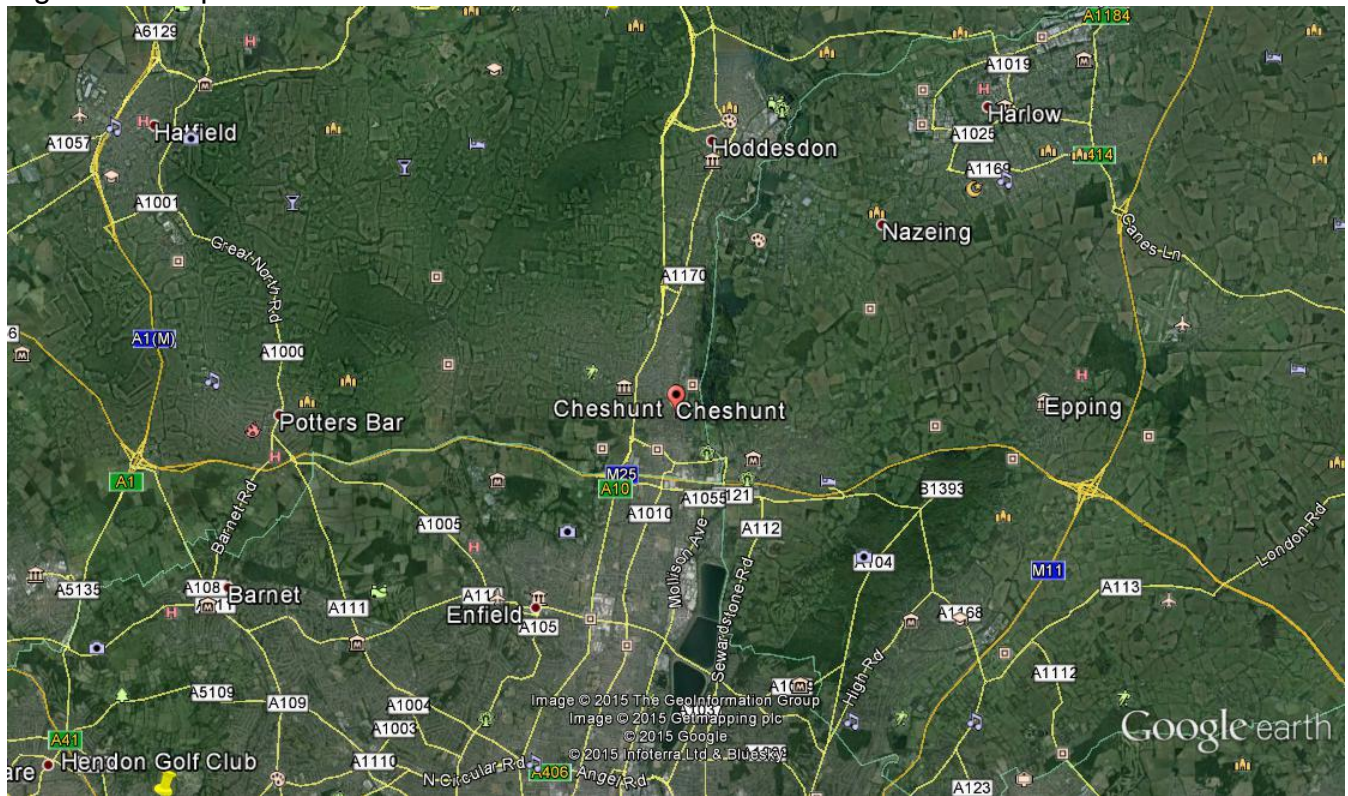


Fig 2. Development in immediate area.



## 2. METHODOLOGIES

### 2.1 Personnel

The survey and assessment work has been led by **Mr Bill Gaudie BSc Hons (Wildlife Conservation MCIEEM)** and undertaken with the assistance of **Ms Kelly Hamer BSc Hons (Wildlife Conservation)**.

Mr Gaudie is Principal Ecologist at EBS and holds Natural England class survey licenses (**class licence registration number 20158032**) in respect of Great crested newt (**WML CL08 Level 1**) and bats (**WML CL18 - Bat Survey Level 2**). He is an experienced consultant with a wide skill base in respect of ecological surveying and assessment, including habitat identification, detection of protected faunal species, assessment of potential impacts in accord with CIEEM Guidance on EclA's and also the design and implementation of mitigation, compensation and habitat enhancement schemes.

Ms Kelly Hamer is an Assistant Ecologist at EBS, with a degree in Wildlife Conservation. She has good ecological surveying and assessment skills, including habitat identification and detection of protected faunal species

### 2.2 Desk Study & Data Search

#### Desk study:

A range of desk and internet based resources were used to obtain background information prior to attending the Site. Bing Maps ([www.bing.com/maps](http://www.bing.com/maps)) and Google Earth 5 (<http://earth.google.co.uk>) for aerial photographs, including historic photographs in the case of Google Earth.

- Bing Maps ([www.bing.com/maps](http://www.bing.com/maps)) for a 1:25,000 Ordnance Survey map extract.
- Multi-Agency Geographic Information for the Countryside (MAGIC) collaborative database website (<http://magic.defra.gov.uk/MagicMap.aspx>), for information on key environmental schemes and statutory designations.
- Natural England webpages (<http://www.sssi.naturalengland.org.uk/Special/sssi/search.cfm>) for citations providing details about Sites of Special Scientific Interest (SSSIs).
- Natural England webpages (<http://www.sssi.naturalengland.org.uk/Special/sssi/search.cfm>) for citations providing details about Local Nature Reserves (LNRs).
- The JNCC website for details about the classification of UK Biodiversity Action Plan (BAP) priority species and habitats (<http://jncc.defra.gov.uk/page-5705>).

#### Data search:

EBS report "Ecological Walkover Assessment and Protected Species Survey – Cheshunt Football Club, The Stadium, Theobalds Lane, Cheshunt, Herts, EN8 8RU - Proposed Training Facilities Development" Feb 2013

### 2.3 Date(s), Weather Conditions & Any Limitations

Walkover surveys were undertaken on and **16<sup>th</sup> and 17<sup>th</sup> August 2015**. No access or visibility limitations were encountered. The weather was dry, with temperatures ranging from 14 - 20°C.

The seasonal timing of the survey was limited for recording breeding birds and many flying invertebrates (butterflies, bees and dragonflies) but habitat appraisal was used as a means of determining suitability and potential value for such wildlife. Similarly, habitat appraisal was applied to determine the Site's suitability and potential for the support of bats.

### 2.4 Vegetation & Habitats

An Extended Phase 1 Habitat Survey was carried out throughout the Application Site and surrounding area as the basis for the assessment. The Phase 1 Habitat Survey is a standardised method used to record habitat types and characteristic vegetation, as set out in the "*Handbook for Phase 1 Habitat Survey – a technique for Environmental Audit*" published by the *Joint Nature Conservation Committee (JNCC 2003)*. The methodology is 'Extended' through the additional recording of specific features indicating the presence, or likely presence, of protected species or other species of nature conservation significance.

Plant species lists were compiled where appropriate and the Site and survey area was searched for uncommon plant species, plant species listed as protected in the *Wildlife and Countryside Act 1981 (WCA 1981)*, plants listed as 'Priority Species' in the former UK Biodiversity Action Plan (UK BAP) and comparably 'species of principal importance', as listed under Section 41 of the extant NERC Act.

Searches were carried out for the presence of invasive species, as covered by Section 14 and listed on Schedule 9 in the *WCA 1981 (as amended)* (Schedule 9 as updated April 2010). This legislation makes it illegal to cause the species to spread in the wild, whether by dispersal of seed, fragments of plants or root systems.

Any occurrences of 'Priority Habitat' (as listed in the former UK BAP) and comparably 'habitats of principal importance' (as listed under Section 41 of the extant NERC Act) were noted. Where possible, the plant species lists were also used to identify National Vegetation Classification (NVC) communities (*Rodwell, J. S. Volumes 1 – 5, 1991 – 2000*), as the NVC provides a systematic and comprehensive analysis of British vegetation.

## 2.5 Fauna

### 2.5.1 Bat Species

UK bat species are provided full legal protection under Schedule 5 (Section 9) of the *WCA 1981 (as amended)* and under *The Conservation of Habitats and Species Regulations 2010 (the Regulations 2010)*, making them European Protected Species. In combination this legislation makes it illegal to intentionally kill, injure, harm or disturb bats and illegal to damage, disturb or obstruct access to bat roosts.

During the Extended Phase 1 Survey, all features at the Site and on adjacent land were preliminarily assessed for their *habitat suitability* and *potential* to support roosting, hibernating, foraging and commuting bats.

Habitat appraisal was also used as the basis of an assessment of potential value for active foraging and commuting bats.

### 2.5.2 Badger

Badgers (*Meles meles*) and their setts are protected under the *Protection of Badgers Act 1992*. This legislation makes it illegal to kill, injure or take Badgers or to interfere with a Badger sett, with the *Act* defining ‘a sett’ as being “any structure or place which displays signs indicating current use by a Badger”.

The land of the Application Site and at least a 30m radius around it (the zone of influence in relation to Badger) was searched for evidence of Badgers (where accessible), with the aim of identifying any combination of the following field signs:

- Sett holes, wider than high, often with spoil heaps in front, sometimes also with discarded bedding;
- Disturbed ground and small holes from foraging activity;
- Trampled dispersal pathways and breach points under boundary fences;
- Distinctive hairs, snagged on fences etc. or found at sett entrances;
- Dung pits/ latrines;
- Characteristically shaped footprints;
- Scratching at the base of trees etc

### 2.5.3 Birds

Wild birds, their nests and their eggs are protected under Part 1 of the *WCA 1981*, which makes it illegal to kill or injure a bird and to destroy its eggs or its nest whilst it is in use or being built. Game birds are an exception and are protected under the separate *Game Acts*, which fully protect them during the close season. In addition, certain bird species (such as Barn owl and Kingfisher) are specially protected under Schedule 1 of the *WCA 1981 (as amended)*, making it illegal to disturb these birds and their young at the nest.



When discussing the conservation status of wild birds, an important reference used in this report has been the ‘red’, ‘amber’ and ‘green’ status lists presented in the document titled *Birds of Conservation Concern 3 (BoCC3)* (<http://www.bto.org/sites/default/files/u12/bocc3.pdf>).

All visible and audible birds were recorded during the survey and habitats Site were assessed for their *potential value* for nesting, roosting, feeding, and wintering birds, as indicated by the amount of shelter and species diversity amongst the shrubs, trees and grassland habitats. No specific breeding or wintering bird survey work was undertaken.

#### 2.5.4 Great Crested Newt & Other Amphibians

The Great Crested Newt (GCN) (*Triturus cristatus*) is provided full legal protection under Schedule 5 (section 9) of the *WCA 1981 (as amended)* and under *the Regulations 2010*, making it a European Protected Species. The legislation makes it illegal to intentionally kill, injure, harm or disturb Great Crested Newts (GCNs) and illegal to damage, destroy or obstruct access to any place used by sheltering or breeding GCNs.

Whilst GCNs breed in water, they forage, shelter and hibernate on land, typically within 250m of the breeding pond but sometimes up to 500m from the pond. Where planning proposals entail disturbance of land within range of GCN breeding ponds there is therefore a risk of killing, injury and/or habitat loss, which would contravene the legislation that protects them. This makes it a legal requirement to consider GCNs in relation to planning proposals, both in terms of aquatic habitat and terrestrial habitat.

Also, although the Common toad (*Bufo bufo*) is not afforded comparable legal protection to the GCN, it is regarded as a material consideration for planning applications because it is listed as a ‘priority species’ in the former UK BAP and a ‘species of principal importance’ in Section 41 of NERC Act 2006.

Appraisal work in relation to GCNs, Common toad and the Application Site was therefore conducted as outlined under sub-headings a) to d).

##### a) Overview & desk study:

A 1:25,000 scale Ordnance Survey map and aerial photographs from Google Earth and Bing Maps were checked for any evidence of ponds within 250m unobstructed dispersal range of the Site, additionally with extension to a 500m search radius if a high density of ponds was present. Where any water-bodies were identified, their approximate sizes and their distances from the red-line boundary were recorded. An indication of the land-use and structure throughout the intervening terrestrial habitat was also recorded.

##### b) Aquatic habitat appraisal:

Any ponds within dispersal range of the Site were to be made the subject of aquatic habitat appraisal where possible. Suitability Index (SI) scores were to be determined during the walkover surveys, from which final Habitat Suitability Index (HSI) scores could then be calculated in the office.

HSI scoring is a method of assessing the quality of a pond in terms of GCN breeding and associated habitat requirements, quantifying ten standard SI parameters, including water quality, flora, and impacts from waterfowl. The methodology of assessment and the thresholds for each of the ten assessment criteria are presented in the *ARG UK Advice Note 5 (May 2010)*, which quotes *Oldham et al. (2000)*.

The final HSI score reflects the *suitability* of the pond for breeding GCN, though notably it cannot show the presence or absence of the species. The score is interpreted using Table 1, as shown below.

Table 1: Interpreting HSI scores	
HSI score	Pond Suitability for GCN
<0.5	Poor
0.5-0.59	Below Average
0.6-0.69	Average
0.7-0.79	Good
>0.8	Excellent

Consideration of Common toad allowed for the fact that this species has similar habitat requirements to GCN, but notably it is tolerant of the presence of fish (unlike GCN).

c) Terrestrial habitat appraisal:

GCNs, Common toads and other amphibians feed, shelter and hibernate on land. Distance from the breeding pond is an important factor, hence the *Great Crested Newt Mitigation Guidelines 2001* broadly distinguishes between three ‘categories’ of GCN terrestrial habitat, as follows:-

- ‘**Immediate**’ habitat = **less than 50m** from the breeding pond.
- ‘**Intermediate**’ habitat = **between 50m and 250m** from the breeding pond.
- ‘**Distant**’ habitat = **more than 250m** from the breeding pond.

Research published by English Nature<sup>2</sup> (now Natural England) indicates that GCNs are most likely to be found within the ‘immediate’ 50m of their breeding pond, provided the terrestrial habitat structure and composition is suitable for use. The likelihood of GCN presence gradually diminishes with increasing distance and it follows that if a GCN population size is small and the ‘immediate habitat’ is of good quality, GCNs may rarely or never disperse more than 50m from the pond as they have no need to do so.

However, the size of the population and the quality, extent and connectivity of the terrestrial habitat is also influential, with GCN being likely to disperse further from the breeding pond if the ‘immediate’ terrestrial habitat is of poor quality or of limited extent, and being likely to disperse further where there are ‘corridors’ of optimal habitat to facilitate dispersal. Conversely, the presence of ‘barriers’ will preclude dispersal.

‘Corridors’ facilitating GCN movement are typically unmanaged strips of land that provide good quality habitat for sheltering and foraging GCNs, such as

dense hedgerows, whilst conversely, ‘*barriers*’ are obstructions that prevent dispersal.

During the walkover survey there was an assessment of all terrestrial habitat within the Application Site and all terrestrial habitat separating ponds from the Site. Examples of dispersal ‘*corridors*’ and ‘*barriers*’ were noted and the topography, land management, soil structure and vegetation structure were qualitatively categorised as being examples of ‘*low*’, ‘*medium*’ or ‘*high*’ habitat value. The assessment took into account all life-stages and seasonal requirements, such as the need for frost-free habitat in which to hibernate.

d) Assessment of risk of potential impacts on GCN &/or other amphibians:

From the outcome of the terrestrial habitat appraisal, coupled with the outcome of the aquatic assessment and presence/absence records from the data search, it was then possible to ascertain the likelihood of amphibian presence/absence at the Site and whether or not GCNs and/or Common toads would require further consideration and survey work.

### 2.5.5 Water Vole

Water voles (*Arvicola amphibious*) and their habitat are provided full legal protection under Schedule 5 (Section 9) of the *WCA 1981* (as amended), which makes it illegal to intentionally kill, injure or take Water voles and to damage, disturb or destroy their ‘place of shelter’, i.e. their habitat.

Water voles are characteristically associated with a range of aquatic habitat types, including ponds, field drains, reservoirs, wetlands and rivers.

Prior to attending the Application Site an Ordnance Survey map and aerial photographs were checked for evidence of water courses and water bodies within or adjoining the Site.

Habitat appraisal was then additionally implemented during the walkover survey and any water features identified during the searches were then assessed as to whether they would require detailed presence / absence survey work at a more suitable time of year.

### 2.5.6 Otter

In England and Wales Otters (*Lutra lutra*) are protected under Section 9(4)(b) and (c) and (5) of the *WCA 1981* and they are fully protected under *the Regulations 2010*. Collectively, this makes it illegal to deliberately or intentionally capture, injure, kill, harm or disturb Otter and illegal to damage, destroy or obstruct access to an Otter holt.

Otters will utilise a wide range of aquatic habitat types, including large ponds, drainage channels, reservoirs, wetlands and rivers.

Prior to attending the Application Site an Ordnance Survey map and aerial photographs were checked for evidence of such water features within or close to the Site. The objective was to determine whether or not detailed presence/absence survey work for Otter was required.

### 2.5.7 Reptiles

All native British reptiles are provided partial legal protection against intentional killing and injury under Schedule 5 (Section 9) of the *WCA 1981* (as amended). In addition, Sand lizard (*Lacerta agilis*) and Smooth snake (*Coronella austriaca*) are fully protected under the *WCA 1981* (as amended) and under *the Regulations 2010*.

The data search and desk study results were assessed to identify any recorded evidence within a 2.0km surrounding radius, but no records were uncovered.

Nonetheless, on a precautionary basis the habitats throughout the Application Site were assessed for their suitability and potential to support reptiles. The aim was to determine whether or not refugia and basking searches would be required in the future.

### 2.5.8 Other Wildlife

Habitat appraisal was applied in respect of Brown hare (*Lepus europaeus*) and Hedgehog (*Erinaceus europaeus*), which are both UK BAP priority species and NERC Act 'species of principal importance'.

Consideration of invertebrates was also implemented, largely with reference to the data search results, coupled with habitat appraisal within the red-line boundary. This focussed on any invertebrate species with the statuses of UK BAP priority species, NERC Act 'species of principal importance' and/or Calderdale BAP priority species.

Any evidence of other wildlife occurrences was to be noted during the survey, including species such as Red fox, Weasel, Stoat, Rabbit and rodents. This was simply to provide a more comprehensive baseline understanding of the Site's ecology: all such species have no notable conservation status.

## **2.6 Evaluation Methods**

Although the UK Biodiversity Action Plan (BAP) was succeeded by 'The Post-2010 Biodiversity Framework' in July 2012, evaluation of habitats and fauna with reference to the old UK BAP lists of 'priority habitats' and 'priority species' still proves helpful in qualifying their 'value'. The lists of priority habitats and species presented in the former UK BAP also form the basis of list of '*habitats and species of principal importance*' presented in Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act, which came into force on 1st Oct 2006. This requires the Secretary of State to regard such habitats and species as conservation priorities under the UK Post-2010 Biodiversity Framework.

Furthermore, local BAP lists are important for identifying species and habitats that are notable on a countywide basis (rather than nationally).

Resultantly, throughout this report there remains reference to UK and Local BAP priority species and habitats. There is also reference to habitats of principal importance and species of principal importance, in accord with Section 41 of the NERC Act 2006.

### 3. RESULTS

#### 3.1 Desk Study & Data Search

##### 3.1.1 Designations

The Application Site is centered at grid reference TL 354 015. Turnford & Cheshunt Pits SSSI lies approximately 1000m east of the proposed development. It is separated from the development by housing and associated infrastructure.

##### 3.1.2 Protected & Priority Species

Results from EBS report “Ecological Walkover Assessment and Protected Species Survey – Cheshunt Football Club, The Stadium, Theobalds Lane, Cheshunt, Herts, EN8 8RU - Proposed Training Facilities Development” Feb 2013 show no Protected Species or Section 41 species within the area.

#### 3.2 Vegetation & Habitats

##### 3.2.1 Location & Surroundings

The Application Site is located in the urban area of Cheshunt, Hertfordshire

**Fig. 2 (Appendix 1)** presents a labelled vegetation and habitat map of the Application Site and immediate surrounding area, as prepared using an aerial photograph (© Google Earth), overlaid with illustration and labels to convey the results from the walkover ecological survey and assessment work. The red-line boundary denotes the Application Site. The survey has extended beyond the red-line boundary, to encompass a wider zone of influence, as determined by professional judgement.

##### 3.2.2 Features within the red-line boundary

Descriptions of habitat features and vegetation types within the red-line boundary of the proposed Application Site are provided in the following paragraphs.

###### Scrub:

Sporadic patches of scrub dominated by bramble are scattered along the boundary of the site.

###### Grassland:

Areas of amenity grassland form the majority of the site, currently used as playing and training pitches.

###### Woodland:

No woodland is present within the site.

Standing Water:

There is no standing water within the development boundary.

Running Water:

There is no running water within the development boundary.

Bare Ground:

A large area of bare ground is currently being developed to the north of the site.

### **3.3 Fauna**

#### 3.3.1 Bats

The buildings on site give only limited opportunity for bat roosts. A bat roost survey was undertaken on the 17<sup>th</sup> August 2015. Internal and external physical search of all buildings was thoroughly conducted. As per; Bat Conservation Trust (2012). *Bat Surveys – Good Practice Guidelines*. **Bat Conservation Trust, London**. ISBN 9781872745985. All roof spacings, voids, cracks (internal and external, where accessible) were searched for signs of bat habitation.

There are large mature trees off site to the east. The trees were in full leaf at time of surveying and so a full examination was not possible. However; as they are mature with visible cracks and fissures it thought likely they are suitable for bat roosts.

In relation to foraging and commuting bats, daylight assessment indicates that the shrubs and flora within the Site and flanking the boundaries are likely to provide limited sheltered air-space and an attraction of insects, hence *moderate potential value for active bats*.

In summary, preliminary daylight assessment indicates that although there are no features of moderate or high potential value for roosting bats within the Site, and the site gives only low foraging valuation, *there will be no need for further investigation at this time*.

#### 3.3.2 Badger

The Site is isolated from other green spaces by major roads and railway tracks and is limited in size. No signs of badger activity or setts were noted within the red line boundary.

In summary, it is assessed that there is no reasonable likelihood of Badger becoming established within the zone of influence, so *this species does not require further consideration*.

#### 3.3.3 Birds

There is potential for low numbers of shrub-nesting species to occur within the Site, but in the context of the habitat availability in the wider surrounding area,

this does not merit further consideration aside from standard protection measures during the breeding season.

#### 3.3.4 Great Crested Newt & Other Amphibians

No ponds will be affected by the development and the only ponds within 250m are separated by housing and associated infrastructure so it is highly improbable that GCN will migrate to the Site. *This indicates that GCN does not require further consideration.*

#### 3.3.5 Water Vole

Habitat assessment within the red-line boundary indicates that no suitable habitat is present. *This indicates that the Water vole does not require further consideration.*

#### 3.3.6 Otter

Habitat assessment within the red-line boundary indicates that no suitable habitat is present. *This indicates that the Water vole does not require further consideration.*

#### 3.3.7 Reptiles

Limited basking, foraging and hiding habitat, along with the high amount of human disturbance indicates that there is very low or negligible likelihood of reptile occurrence at the Site, *it is judged that further survey and consideration of reptiles is not necessary.*

#### 3.3.8 Other Wildlife

Habitat within the red-line boundary is unsuitable for Dormice, Brown Hare and Hedgehog, so these species do not warrant further consideration.

## 4. EVALUATION, RECOMMENDATIONS & LOSSES/GAINS

### 4.1 EVALUATION

The results from the desk study and walkover surveys, have identified what ecological features do and don't require further survey, assessment and/or consideration in relation to proposals for the Application Site.

In summary, it is evaluated that the following ecological features and/or species *will require* further consideration:

- Trees = All retained trees to be protected to BS5837 recommendations. *Impact assessment must be applied.*
- Breeding birds = A combination of mitigation and compensation must be prescribed where any significant negative impacts are predicted.

By comparison, it is judged that the following ecological features and/or species *do not require* further consideration:

- Statutory / non-statutory sites of ecological interest: = No sites are thought to be affected by the proposals.
- Bats = The preliminary daylight survey work has indicated *there will be no need for further investigation into bat activity at the Site.*
- Badger = Whilst habitat structure and use within the Site and zone of influence remains in its current form, it is assessed that there is no reasonable likelihood of this species becoming established, so *Badger does not require further consideration.*
- Great crested newt and other amphibians = There are no water-features that provide potential habitat value for breeding GCN and other amphibians. So GCN does not require further consideration
- Water vole = There is no habitat value for this species within the red-line boundary and its recorded occurrence further north is beyond the zone of influence. *There is no potential for Water vole, so it can be excluded from the impact assessment.*
- Otter = There is no aquatic habitat value for this species within the Site *This indicates there is no reasonable likelihood of occurrence.*
- Reptiles = Since habitat appraisal indicates there is very low or negligible likelihood of reptile occurrence at the Site, *it is judged that further survey and consideration of reptiles is not necessary.*
- Other wildlife = There is no reasonable likelihood of Dormice, Brown hare or Hedgehog being present, thus *these species can be discounted from the impact assessment.*



## 4.2 LOSSES

Only areas of low ecological value that are species poor will be lost (See Table 2).

## 4.3 GAINS

Although the areas affected by the development are deemed to be ecologically poor, they do contain some value and help support various fauna. It is therefore envisaged that areas of the development shall be set-aside for the creation of various habitats such as low maintenance scrub areas planted up with native species. Numerous native tree specimens will also be planted as boundary screens and within gardens and carparking areas (See Appendix 2 for Landscaping proposals).

## 4.4 Biodiversity Impact Calculator

This metric assesses ecological value pre and post development and has been upheld by planning inspectorate as an appropriate mechanism for achieving the ecological aims of NPPF. Table 2 below shows the breakdown of habitat areas pre and post development. Table 3 shows the results of the Habitat Biodiversity Impact Assessment.

Table 2. Breakdown of habitat areas pre and post development

<b>Pre-Development Habitat Type and Area</b>	
Habitat Type	Area Ha
Built Environment – Buildings / Hardstanding	1.38
Amenity Grassland J12	3.40
Bare ground J4	4.95
Woodland A111	0.71
Scrub	0.25
<b>Total</b>	<b>10.69</b>
<b>Pre-Development Habitat Type and Area Retained</b>	
Habitat Type	Area Ha
Woodland	0.71
Scrub	0.12
<b>Total</b>	<b>0.83</b>
<b>Post-Development Habitat Type and Area Created</b>	
Habitat Type	Area Ha
Built Environment – Buildings / Hardstanding	3.31
Built Environment – Gardens (Lawn and Planting)	1.60
Amenity Grassland	4.85
Scrub	0.10
<b>Total</b>	<b>9.86</b>

**Table 3. Biodiversity Impact Assessment Summary**

Site name:	Cheshunt Football Ground
Planning reference number:	

Habitats	Area (ha)	Habitat Biodiversity Value
Total existing area onsite	10.69	25.97
Habitats negatively impacted by development Habitat Impact Score	9.86	17.09
On site habitat mitigation Habitat Mitigation Score	9.86	17.20
<b>Habitat Biodiversity Impact Score</b> If -ve further compensation required		<b>0.11</b>
Percentage of biodiversity impact		
Linear features	Length (km)	Linear Biodiversity Value
Total existing length onsite	0.00	0.00
Linear features negatively impacted by development Linear Impact Score	0.00	0.00
On site linear mitigation Linear Mitigation Score	0.00	0.00
<b>Linear Biodiversity Impact Score</b> If -ve further compensation required		<b>0.00</b>
Percentage of linear biodiversity impact		

#### 4.5 Recommendations

There is an aim to achieve positive long-term impacts, as well as mitigating any predicted negative impacts. Important considerations and opportunities are presented below.

- **Bats:** there is no obligation to include bat roost features in the proposal unless there is a predicted impact of bat roost loss. However, woodcrete bat boxes installed on substantial trees provide high quality bat roost habitat for a range of species, with the boxes predicted to last 20 – 25 years because of their durable construction material. Bat box installation will contribute habitat value to the Site. 4x woodcrete bat boxes will be installed within trees along Theobalds lane at the southern boundary of the site, the installation will be monitored and supervised by an appropriately experienced ecology. See Appendix 2 for positions.
- **Birds:** The planting scheme will include introduction of shrubs and trees, but in the interim there will remain limited shrub-layer vegetation for nesting birds to use within the Site or immediate surrounding area (the woodlands have very sparse shrub layers).
- **Wildlife corridors:** Fences that meet with the ground, are barriers to

animal movement, so it is advisable that all new perimeter fences will have a 5 – 10cm gap between their bases and the ground. Provision of shelter is also a key factor associated with wildlife corridors: this will include provision of suitable shrub and tree planting for example (as specified below).

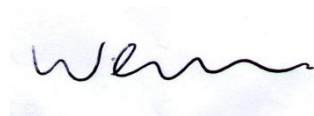
- **Planting:** This will be of appropriate native species of native provenance and complementary to the species and habitats that are already present in the surrounding area. Therefore tree planting will consist of Pedunculate Oak, Silver Birch, Hornbeam, Field Maple, Goat Willow, Rowan, Wild Cherry, Yew, Small-leaved Lime; and shrub planting will consist of Holly, Hawthorn, Blackthorn, Hazel, Crab Apple, Buckthorn, Wild Privet, Dogwood, Wayfaring Tree, and Spindle.
- **Scrub:** Areas of scrub will be created along the boundary of the northern section so as to attract breeding birds and various invertebrates. The section will be protected by fencing until established. See Appendix 2 for positioning,

## 5.0 CONCLUSIONS

The site as a whole has little ecological value, the areas concerned within this report are species poor and of low biodiversity value. No protected species listed under the Wildlife and Countryside act 1981, schedule 1 (birds), schedule 5 (animals) and schedule 6 (plants) were discovered on land proposed for redevelopment and none are thought to be affected by the proposed development. Any disturbance will be adequately compensated for, creating an opportunity to improve the ecological value of the site in compliance with the National Planning Policy Framework (NPPF).

It is therefore envisaged that if the above recommendations in mitigation and compensation are followed, then the site as a whole will be greatly improved. The proposed tree and scrub planting along with the placement of bat boxes will create habitat corridors which in turn will improve not only the biodiversity of the site but the areas surrounding and further afield.

**It is the opinion of EBS that by complying with the above recommendations and the proposals outlined in the associated Planning Statement, the development will deliver a net biodiversity gain to the area.**



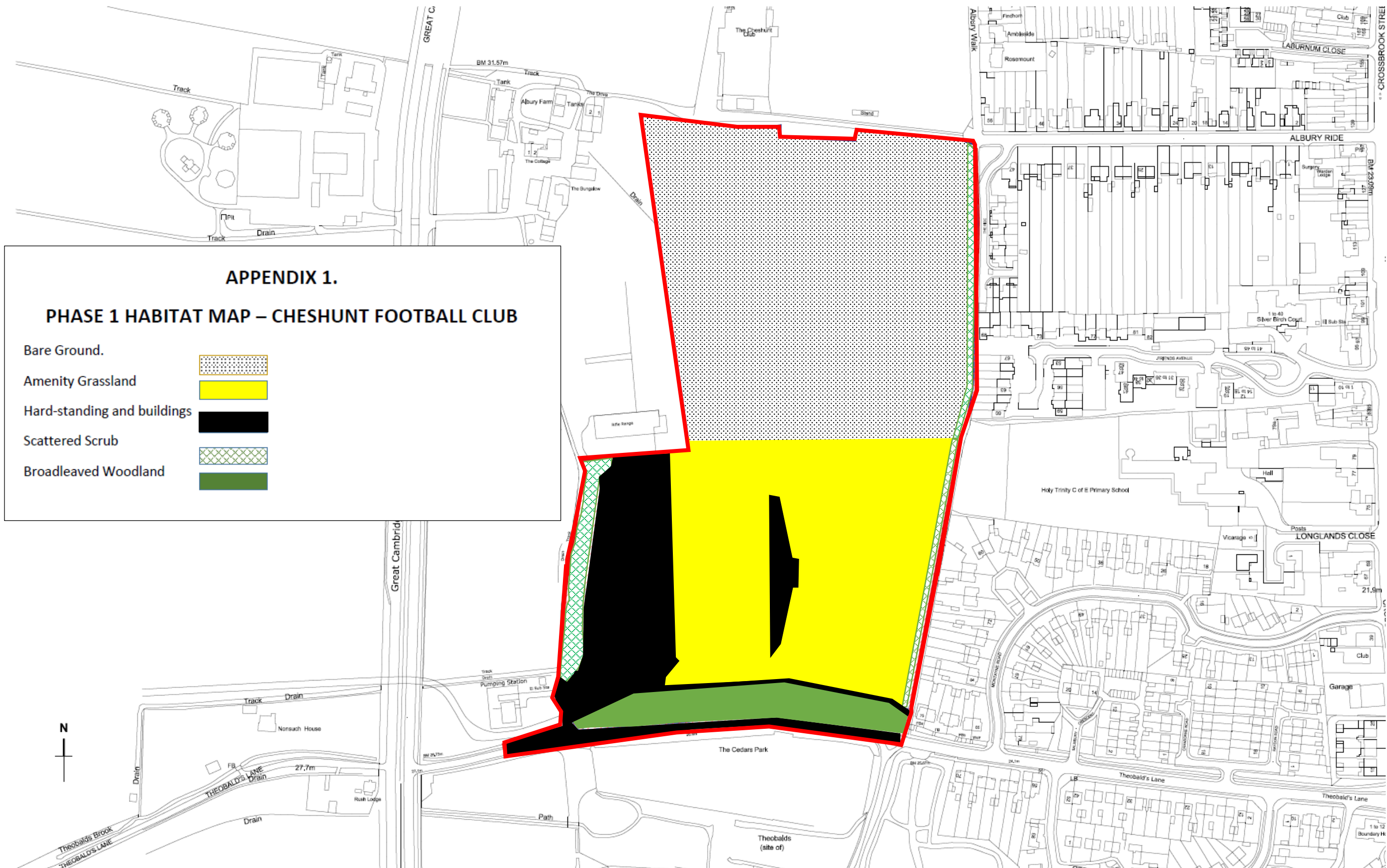
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## **APPENDICES**



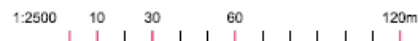
**APPENDIX 1.**

**PHASE 1 HABITAT MAP – CHESHUNT FOOTBALL CLUB**

Bare Ground.	
Amenity Grassland	
Hard-standing and buildings	
Scattered Scrub	
Broadleaved Woodland	

SITE LOCATION PLAN  
1:2500

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PROPOSED DEVELOPMENT AT:  
CHESHUNT FC, THE STADIUM, THEOBALD'S LANE, CHESHUNT, EN8 8RU

APPLICATION IDENTIFICATION PLAN

1:2500@A3

OCTOBER 2016

15\_238\_PL01\_2

## APPENDIX 2.

### SITE PHOTOGRAPHS – CHESHUNT FOOTBALL CLUB

Photo 1. Bare Ground being developed.



Photo 2. Amenity Grassland being used for training



Photo 3. Edge Scattered Scrub next to training pitch



Photo 4. Mature trees on site boundary

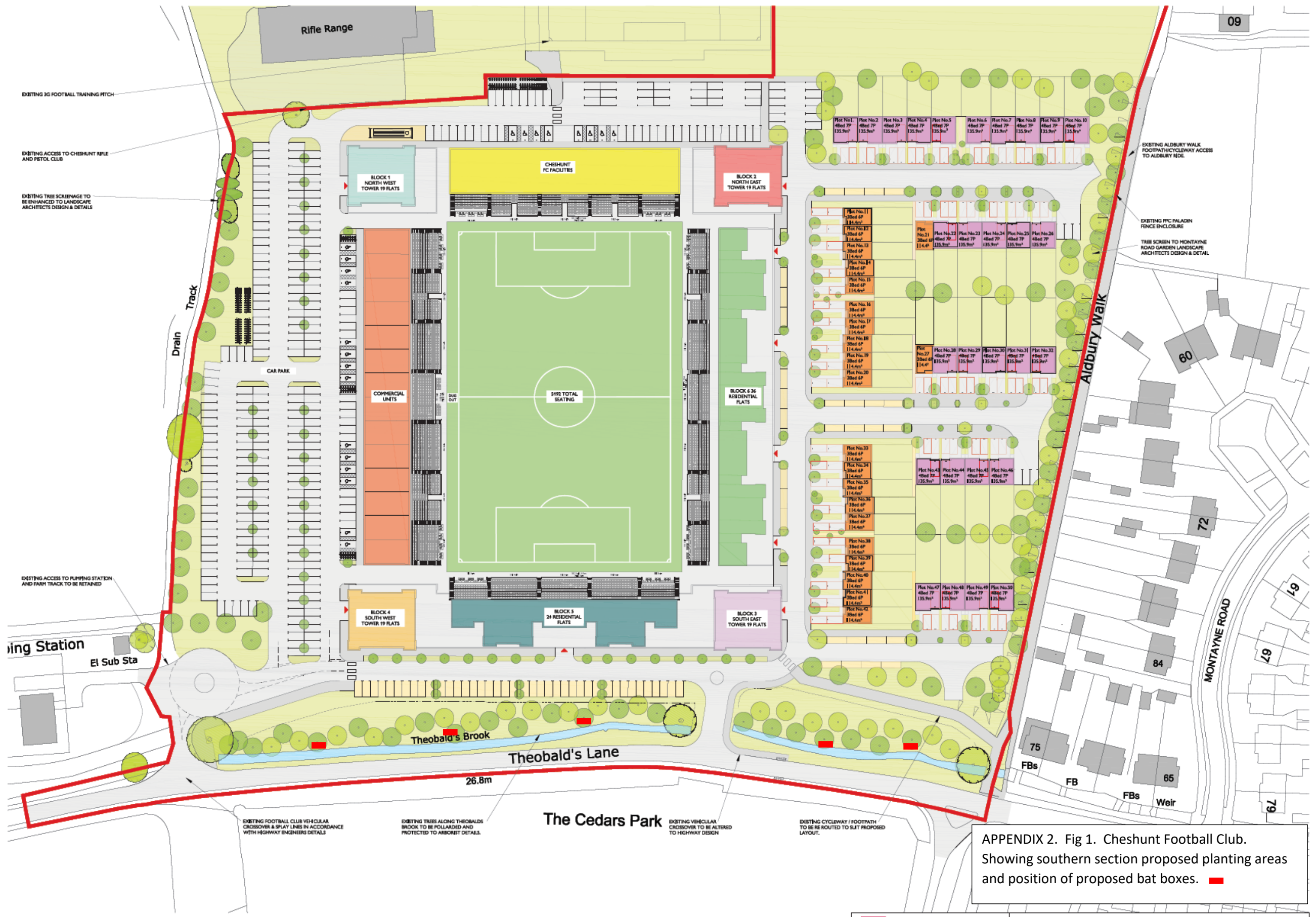


Photo 5. Main Stand. Searched for evidence of bat presence.



Photo 6. Admin buildings. Searched for evidence of bat presence.





APPENDIX 2. Fig 1. Cheshunt Football Club. Showing southern section proposed planting areas and position of proposed bat boxes. ■







Appendix 2. Fig 2. Cheshunt Football Club  
 Showing Northern section scrub and tree planting scheme