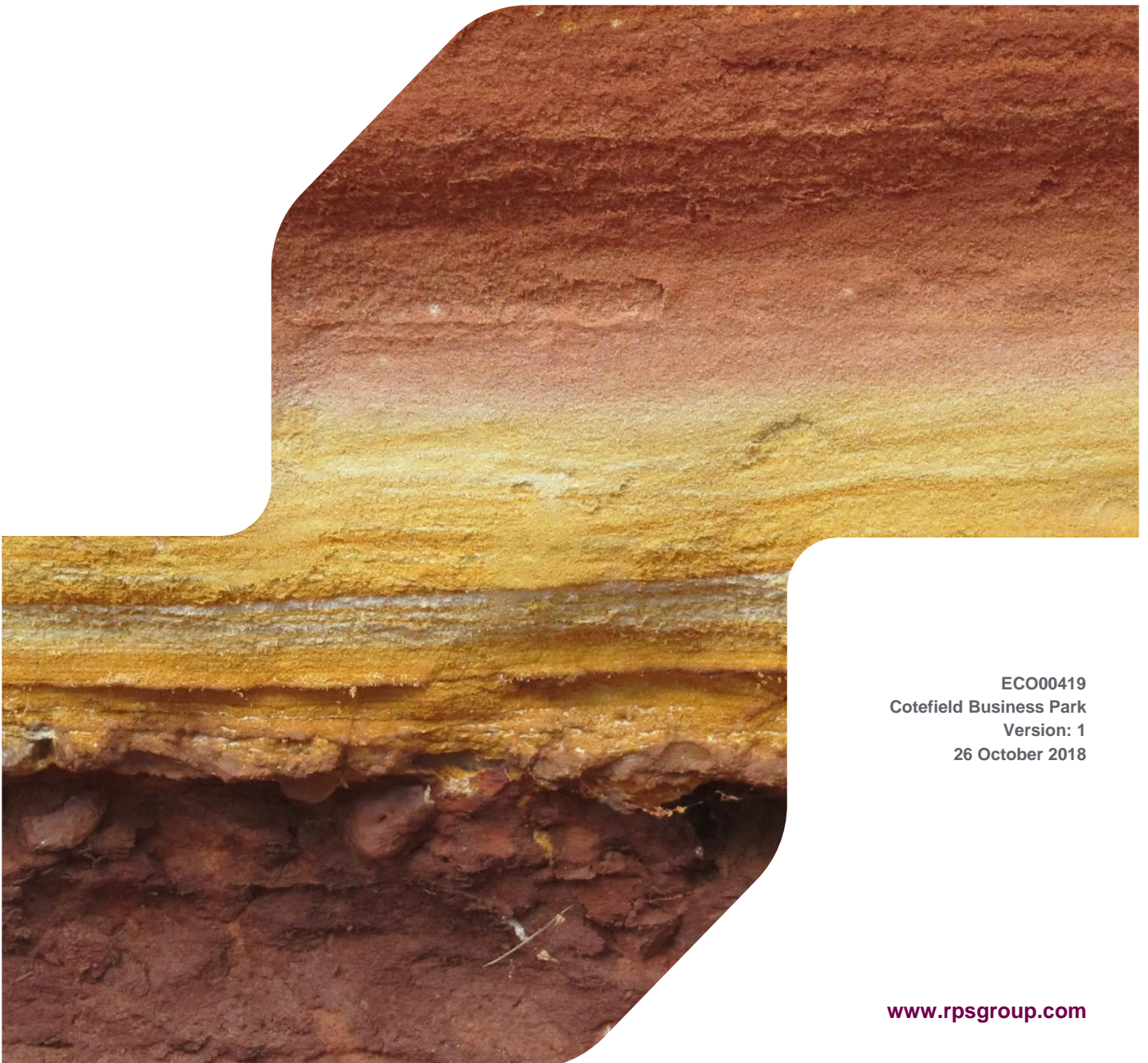


COTEFIELD BUSINESS PARK, BODICOTE

Preliminary Ecological Appraisal



ECO00419
Cotefield Business Park
Version: 1
26 October 2018

REPORT

Document Status

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1	Preliminary Ecological Appraisal	Katy Thomas	Louisa Medland	Simon Gamage	26/10/18

Approval for issue

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EXECUTIVE SUMMARY

RPS Planning and Development Limited (RPS) was commissioned by Cotefield Holdings Limited to carry out a Preliminary Ecological Appraisal (PEA) to inform proposals for the development of a food store on land at Cotefield Business Park, Bodicote, Oxfordshire (the Site).

The PEA comprised a desk study and a Phase 1 Habitat Survey. The PEA was undertaken following guidance provided by CIEEM (2017).

The desk study identified one statutory designated site within 2km of the Site, comprising a Local Nature Reserve (LNR). There were no non-statutory sites recorded within 1km of the Site. Records were provided for at least five bat species within 1km of the Site. Two other mammals, 38 birds, one invertebrate and one flora species were recorded within 1km of the Site.

The Phase 1 Habitat Survey identified that the survey site consisted predominantly of bare ground, hedgerows, scattered trees, hedgerow and tall ruderal.

The habitats on site were considered to provide suitable habitats for nesting birds and foraging and commuting bats.

A description of the potential effects of the proposed development on the habitats and species identified as being present or potentially present are described in this report, followed by recommendations for further survey work and mitigation measures to ensure such effects are avoided. Avoidance measures reduce the need for any other surveys.

Measures to protect and enhance the Site are also provided, including using appropriate management to enhance the value of retained boundaries.

1 INTRODUCTION

- 1.1 RPS Planning and Development Limited (RPS) was commissioned by Cotefield Holdings Limited to carry out a Preliminary Ecological Appraisal (PEA) to inform proposals for the development of a convenience store on land at Cotefield Business Park, Bodicote, Oxfordshire.
- 1.2 The Site's location is shown on Figure 1.
- 1.3 The PEA comprised a desk study and Phase 1 habitat survey of the Site and followed guidance provided by CIEEM (2017).
- 1.4 The objectives of the desk study and Phase 1 habitat survey were to:
 - Locate statutory designated sites within 2km of the Site;
 - Locate non-statutory designated sites within 1km of the Site;
 - Locate records of protected or otherwise notable species within 1km of the Site;
 - Identify and map the habitats present within the Site boundary; and
 - Assess the potential for legally protected fauna and flora to be present; and make recommendations for further ecological surveys, where necessary.
- 1.5 This report outlines the methods used (Chapter 2), presents the results obtained (Chapter 3), and sets out the conclusions reached (Chapter 4).

2 METHODOLOGY

Desk Study

Search Area

- 2.1 A study area of 1km from the Site was used to gather records of protected and notable species and details of non-statutory designated wildlife sites. A wider search area of 2km from the Site was used to gather details of statutory designated wildlife sites.

Data Request

- 2.2 A data request was sent to the Thames Valley Environmental Records Centre (TVERC) in September 2018 to request any data they held on designated wildlife sites and protected and notable species since 2008.
- 2.3 In addition to these requests, the 'MAGIC' website was consulted for information on any Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Ramsar Sites, National Nature Reserves (NNRs) and Sites of Special Scientific Interest (SSSIs). The Joint Nature Conservation Committee (JNCC) website was also consulted for additional details of any SACs, SPAs and Ramsar sites.
- 2.4 The legal and conservation status of the species for which records were received was determined using the Spreadsheet of Conservation Designations for UK Taxa (JNCC, 2018).

Phase 1 Habitat Survey

- 2.5 The Phase 1 habitat survey was carried out by Katy Thomas GradCIEEM and Sam Barker GradCIEEM, both employed by RPS and experienced in carrying out Phase 1 habitat surveys. The survey was undertaken on the 24th September 2018 to map the habitats present within the Site boundary and to identify any potential for protected species to be present.
- 2.6 The survey took account of the standard Phase 1 habitat survey methodology as set out by the JNCC in the Handbook for Phase 1 Habitat Survey; a technique for environmental audit (JNCC, 2010).
- 2.7 The habitats were mapped onto Ordnance Survey base maps using the JNCC Phase 1 habitat survey categories. Typical plant species were recorded for each category of habitat and species names used following Stace (2010).
- 2.8 Habitats potentially suitable for legally protected fauna were noted, and any signs of such species (e.g. sightings, tracks, droppings, burrows, etc.) were recorded.
- 2.9 Target notes were created for any features of interest and are listed in Appendix 1. A species list is included in Appendix 2.
- 2.10 The survey was undertaken during the optimal time for Phase 1 habitat surveys, which is between March and September, when most plant species are evident or in flower. The survey was undertaken during suitable weather conditions for this type of survey.

3 RESULTS

Desk Study

- 3.1 The data received from the consultees concerning wildlife sites and protected and notable species records is summarised in Table 1 below.

Table 1 – Consultee Responses

Consultee	Response
Thames Valley Environmental Records Centre	Provided records of protected and notable species.

- 3.2 One statutory site was recorded within 2km of the Site. There are no non-statutory sites present within 1km of the Site.
- 3.3 Adderbury Lakes is a Local Nature Reserve (LNR) designated for its wide diversity of insect, bird, mammal and plant species and is located 1.98km south east of the Site.

Records of Protected and Other Notable Species

- 3.4 Protected or notable species refers to any species protected or listed under the following legislation or which is identified as being of nature conservation concern in the lists referred to below.

Protected Species

- 3.5 The following legislation has been taken into account in considering protected species:
- The Conservation of Habitats and Species Regulations 2017 (Annex 4) (European Protected Species) (EPS);
 - Council Directive 79/409/EEC on the Conservation of Wild Birds (“Birds Directive”) (BDIR);
 - Wildlife and Countryside Act 1981 (as amended) (Schedules 1, 5 and 8) (WCA1/WCA5/WCA8); and
 - The Protection of Badgers Act 1992 (PBA).

Other Notable Species

- 3.6 The following legislation and guidance has been taken into account in considering notable species:
- The Natural Environment and Rural Communities (NERC) Act 2006. Section 41; Habitats and Species of Principal Importance in England (NERC S.41);
 - UK Biodiversity Action Plan Priority Species (UKBAP);
 - Birds of Conservation Concern; Red or Amber listed birds (Red or Amber);

- Red listing based on IUCN guidelines – Near threatened (NT), Endangered (EN), Vulnerable (VU); and
 - Rare and scarce species not based on IUCN criteria – Nationally Rare (NR), Nationally Scarce (NS), County Rare (CR).
- 3.7 Records of protected or otherwise notable species provided by Thames Valley Environmental Record Centre are summarised in Appendix 3 and discussed below.
- 3.8 No records were provided from within the Site boundary specifically. However, a number of records were from 1km grid squares or tetrads that included the Site within it.
- 3.9 The potential for protected or notable species to be present on the Site is discussed later in this section of the report and takes into consideration the desk study results.

Birds

- 3.10 A total of 38 protected or notable species of bird have been recorded within 1km of the Site.
- 3.11 The bird records include four species specially protected under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and two protected under the Birds Directive. A total of 18 species are listed under Section 41 of the Natural Environment and Rural Communities Act (2006) and listed as a UK Biodiversity Action Plan Priority Species.
- 3.12 A total of 36 species are either red or amber listed.

Mammals (bats)

- 3.13 At least five species of bat were recorded within 1km of the Site boundary and a number of records were provided for bats not identified to species level. These could therefore account for other additional species.
- 3.14 All bats are European Protected Species and listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Noctule bat, soprano pipistrelle and brown long-eared bat are listed under Section 41 of the Natural Environment and Rural Communities Act (2006) and are UK BAP Priority Species.
- 3.15 Common pipistrelle, soprano pipistrelle, noctule bat, brown long-eared bat and Myotis bat species were recorded with at least a six figure grid references to be within 1km of the Site boundary. The closest bat records to site were recorded approximately 635m away.

Mammals (other protected and notable species)

- 3.16 Two other protected and notable species were recorded within 1km of the Site: badger and hedgehog.
- 3.17 Badgers and their setts are protected under the Protection of Badgers Act 1992. Hedgehog is listed under Section 41 of the NERC Act (2006) and is a UK BAP Priority Species.
- 3.18 Badgers were recorded 410m from the Site boundary. Hedgehogs have been recorded 760m east of the Site.

Herpetofauna

- 3.19 There were no records of herpetofauna recorded within 1km of the Site.

Invertebrates

- 3.20 One invertebrate species has been recorded within 1km of the Site.
- 3.21 The fine-lined pea mussel is listed under Section 41 of the NERC Act (2006) and is a UK BAP Priority Species.

Flora, Fungus and Mosses

- 3.22 One notable plant species has been recorded within 1km of the Site.
- 3.23 Ragged-robin was recorded approximately 820m north of the Site and is listed as Near Threatened.

Phase 1 Habitat Survey

Overview

- 3.24 The Site was located on land north of Cotefield Farm Business Park, Bodicote and consisted predominantly of bare ground, hardstanding, scattered trees, hedgerow and tall ruderal.

Phase 1 Habitat Survey Results

- 3.25 A description of the habitat types identified during the survey is set out below. The locations of the habitats within the survey area are shown on the Phase 1 Habitat Plan in Figure 2.
- 3.26 A list of target notes is provided in Appendix 1 and a species list is provided in Appendix 2. Target note (TN) numbers are shown on Figure 2 and referred to in the habitat descriptions below.

A2.2 Scattered scrub

- 3.27 A wide margin of scattered scrub with trees was present along the western boundary of the Site. Species included hawthorn *Crataegus monogyna*, blackthorn *Prunus spinosa*, holly *Ilex aquifolium* and ivy *Hedera helix*. Scattered broad-leaved trees (described in Paragraph 3.28-3.29 below) were also present in this area.

A3.1 Scattered broad-leaved trees

- 3.28 A mixture of scattered broad-leaved trees was present throughout the Site. On the eastern boundary, these comprised a mixture of semi-mature ash and beech trees within the hedgerow (as described in Paragraph 3.27 above). Along the western boundary, semi-mature trees comprising beech, birch *Betula pendula*, ash, willow *Salix fragilis*, hazel *Corylus avellana*, field maple and spruce *Picea* sp. bordered the Site compound and amenity grassland.
- 3.29 A row of semi-mature trees of alternating oak and horse chestnut *Aesculus hippocastanum* stood within the amenity grassland along the western and northern boundary of the Site.

C3.1 Tall ruderal

- 3.30 Scattered ruderal was present along the margin of the CALA Homes site compound and car park on the eastern and southern boundaries. Species comprised dock *Rumex sp.*, stinging nettle *Urtica dioica*, dandelion *Taraxacum sp.*, thistle *Cirsium vulgare*, rosebay willowherb *Chamaenerion angustifolium* with occasional rose *Rosa sp.* and geranium species. A number of small saplings of oak *Quercus robur*, ash *Fraxinus excelsior*, beech *Fagus sylvatica* and field maple *Acer campestre* were just emerging from the ruderal.

J1.2 Amenity grassland

- 3.31 Strips of amenity grassland bordered the Site on the southern, western and eastern boundaries. Species comprised predominantly annual meadow grass *Poa annua* with occasional dandelion, dock and cow parsley *Anthriscus sylvestris*.

J1.4 Introduced shrub

- 3.32 The Site contained a number of small patches of cherry laurel *Prunus laurocerasus* (TN2), mainly within the hedgerow and scrub on the southern and western boundaries.

J2.1.2 Native species-poor hedgerow

- 3.33 A narrow hedgerow comprising predominantly box *Buxus sempervirens* was present along the southern and eastern boundary of the Site (TN3). Along the eastern boundary, the hedgerow measured approximately 1m x 2m and extended for 30m, parallel with the Site compound. A larger section of box hedgerow was present along the southern boundary.

J2.3.2 Native species-poor hedgerow with trees

- 3.34 A mature hedgerow with trees sat parallel to the box hedgerow on the eastern boundary of the Site. The hedgerow comprised predominantly field maple, hazel and beech with a small number of semi-mature ash and beech trees. The hedgerow was approximately 80m in length and curved around the northern boundary of the Site, where it ended.

J3.4 Fence

- 3.35 Temporary Heras fencing has been installed around the CALA Homes site compound which covers a large proportion of the bare ground present on site.

J4 Bare ground

- 3.36 A mixture of bare ground and hardstanding was the dominating feature of the Site. The main area of bare ground was being used as a site compound and car park for CALA Homes (TN1). The area was bordered by tall ruderal, hedgerow and scattered trees.
- 3.37 A small area of hardstanding formed the access road into the compound, through an existing gate on the western boundary of the Site.

Potential for Protected or Otherwise Notable Species

Plants and Habitats

- 3.38 All hedgerows are NERC Section 41 Habitat/UK BAP Priority Habitat. The Site did not have a diverse flora and was unlikely to support any protected or notable flora.

Nesting Birds

- 3.39 The trees and hedgerows on site provide habitat for a range of bird species and could potentially support protected and notable birds. Species recorded during the Phase 1 Habitat Survey included wren *Troglodytes troglodytes*, blue tit *Cyanistes caeruleus*, great tit *Parus major*, robin *Erithacus rubecula*, dunnock *Prunella modularis*, blackbird *Turdus merula*, woodpigeon *Columba palumbus* and carrion crow *Corvus corone*.

Mammals

Bats

Bat roosts

- 3.40 No trees within or immediately adjacent to the application boundary were identified as having bat roost potential.

Bat activity

- 3.41 The hedgerow and semi-mature trees along the main access road are likely to be of good value for foraging and commuting bats. The trees provided linear features for bats to commute along and were likely to support a variety of night flying invertebrates for bats to forage upon. The hedgerows are further linked to suitable off-site roosting and foraging habitat.

Badgers

- 3.42 There were no signs of badger activity (setts, paths, latrines, dung pits, foraging) identified on site during the survey.

Invertebrates

- 3.43 The scrub, hedgerow and trees comprise a low diversity of common and widespread flora. The plants are likely to provide a food source for some local invertebrate populations and the flowers are likely to provide a source of pollen and nectar. The Site is unlikely to support protected or notable invertebrates.

4 CONCLUSION

Desk Study

- 4.1 The desk study identified one statutory designated site within 2km of the Site, comprising a Local Nature Reserve (LNR). There are no non-statutory sites recorded within 1km of the Site.
- 4.2 The desk study also identified a number of records of protected and notable species. Records were provided for bats and nesting birds that have the potential to be affected by the works proposed.

Phase 1 Habitat Survey

- 4.3 The Phase 1 habitat survey identified that the Site consisted predominantly of bare ground, scattered trees, hedgerow and tall ruderal.
- 4.4 The trees and hedgerows were considered to be of ecological value, providing suitable habitats for nesting birds, however they were not considered suitable for roosting bats. No buildings were present within the application boundary.
- 4.5 A description of the potential construction and operational effects of the project on the habitats and species identified as being present or potentially present are described below followed by recommendations for further survey work and mitigation measures to ensure such effects are avoided. Measures to enhance the ecology value of the Site are also recommended.

Plants and Habitats

- 4.6 All hedgerows are NERC Section 41 Habitat/UK BAP Priority Habitat. The Site did not have a diverse flora and was unlikely to support any protected or notable flora.

Nesting Birds

- 4.7 All wild birds are protected at a European level under the EC Directive on the Conservation of Wild Birds 1979 (79/409/EEC) (the Birds Directive). All species of wild bird in the UK (other than a few pest species) are given general protection under Part 1 Section 1(1) of the Wildlife and Countryside Act 1981 and birds listed under Schedule 1 of the Act are further protected.
- 4.8 If any vegetation removal is required on site which is suitable for breeding birds, such as trees and hedgerows, it should be cleared outside of the bird nesting season, as far as practicable.
- 4.9 The clearance works should be undertaken between October and mid-February (Newton et al., 2011) to ensure nesting birds are not disturbed. If any clearance is required outside this period, the relevant areas should be inspected by a suitably experienced ecologist to check for the presence of nesting birds prior to any site clearance. If an active nest is present, the nest and the vegetation or built structure within 5m of it will need to be retained until the young birds have fledged.
- 4.10 If the nest proves to be of a species listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), advice from the inspecting ecologist regarding suitable distances (buffers) to avoid disturbance of the nest and any birds using it should be sought and agreed with

clearance contractors. Such buffers will remain in place until the young birds have fledged and left the nest.

Mammals

Bats

- 4.11 All British species of bat are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). Under this legislation it is an offence to deliberately capture, kill, disturb and damage or destroy a bat roost.
- 4.12 No trees within or immediately adjacent to the application boundary were identified as having bat roost potential, therefore further surveys are not required.
- 4.13 The hedgerow and row of semi-mature trees on site, together with the tree line adjacent to the Site (along the main access road road) were considered to provide good linear habitat for foraging and commuting bats, however it is unlikely that the current proposals will significantly affect bat activity.
- 4.14 It is recommended that measures are implemented to avoid night-time lighting of areas that could provide flight lines and foraging habitats for bats. The measures to be designed into the proposals should consider the specifications set out in the Bat Conservation Trust (2014) guidelines.
- 4.15 The following points should be considered in the design of any lighting on site:
- **Light source:** a lamp with a low UV output should be chosen and output and lux levels should be as low as possible;
 - **Luminaire and light spill accessories:** lighting should be directed away from features with potential for roosting, foraging and commuting bats, and should be directed to where it is needed. Light spill should be avoided by the design of the luminaire and by using hoods, cowls, louvers and shields to direct light to the intended area only;
 - **Lighting column:** Lighting columns should be as short as possible unless a taller column will allow light to be directed downwards at a more acute angle to reduce horizontal spill.
 - **Light levels:** the level of light should be as low as possible for the intended use; and
 - **Timing:** where practicable, lighting should be turned off for fixed periods when it is not needed to provide some dark periods.

Badgers

- 4.16 Badgers and their setts are protected under the Protection of Badgers Act 1992 which makes it illegal to kill, injure or take badgers or to interfere with a badger sett. Sett interference includes damaging or destroying a sett, obstructing access to it or disturbing a badger whilst it is occupying a sett.
- 4.17 Although badgers have been recorded within the proximity of the Site, no signs of badger setts or activity were identified on site during the Phase 1 Habitat Survey. Therefore, further surveys are not required.

Site Enhancement

- 4.18 Planning policy at the national and local level and strategic biodiversity partnerships encourage inclusion of ecological enhancements in development projects to provide a net gain in biodiversity. The following measures would be suitable for integration into the Site's design but would require a more detailed design to implement successfully.

Wildlife Planting

- 4.19 Wildlife planting should be integral to the landscape plans and should include species of recognised wildlife value. The use of nectar-rich and berry producing plants will attract a variety of insects, birds and mammals. Planting trees would also provide additional cover for wildlife.
- 4.20 Landscaping should include the use of climbing plants, where possible, to provide vertical nesting habitat for birds and invertebrates. Plants should comprise native species or non-native species of recognised wildlife value.

Bird Nesting Opportunities

- 4.21 The provision of bird bricks/boxes would be appropriate at this site. There are numerous designs available including boxes to support swift *Apus apus* and house sparrow *Passer domesticus* which can be erected on buildings. Woodcrete bird boxes are recommended as they are more durable compared to wooden boxes and insulate occupants from the extreme ranges of temperature and condensation.
- 4.22 Nest bricks/boxes are a discrete but effective mitigation measure and could be installed on new/existing buildings or in trees within the Site boundary.

Bat Roosting Opportunities

- 4.23 The provision of bat boxes and tubes could be incorporated onto the existing trees on-site, to provide roosting opportunities for bats in the area. The boxes should be installed at least 4m off the ground on either buildings or trees, away from artificial lighting and facing south-east to south-west; these would provide the most benefit to bats.
- 4.24 Woodcrete boxes such as those manufactured by Schwegler Ltd, are recommended as they are more durable compared to wooden boxes and insulate occupants from the extreme ranges of temperature and condensation.
- 4.25 It is recommended that native and wildlife planting be incorporated into the landscape proposals, where possible, to create and enhance areas on site for foraging bats. Linear planting would also benefit commuting bats.

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Figures

Figure 1: Designated Sites Plan



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Legend

- Site boundary
- 2km Search Area
- Adderbury Lakes Local Nature Reserve

Rev	Description	By	CB	Date



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Title Statutory Designations within 2km

Status DRAFT	Drawn By CR	PM/Checked By SB
Project Number ECO00419	Scale @ A3 1:16,000	Date Created JUN 2019
Figure Number 1		Rev -

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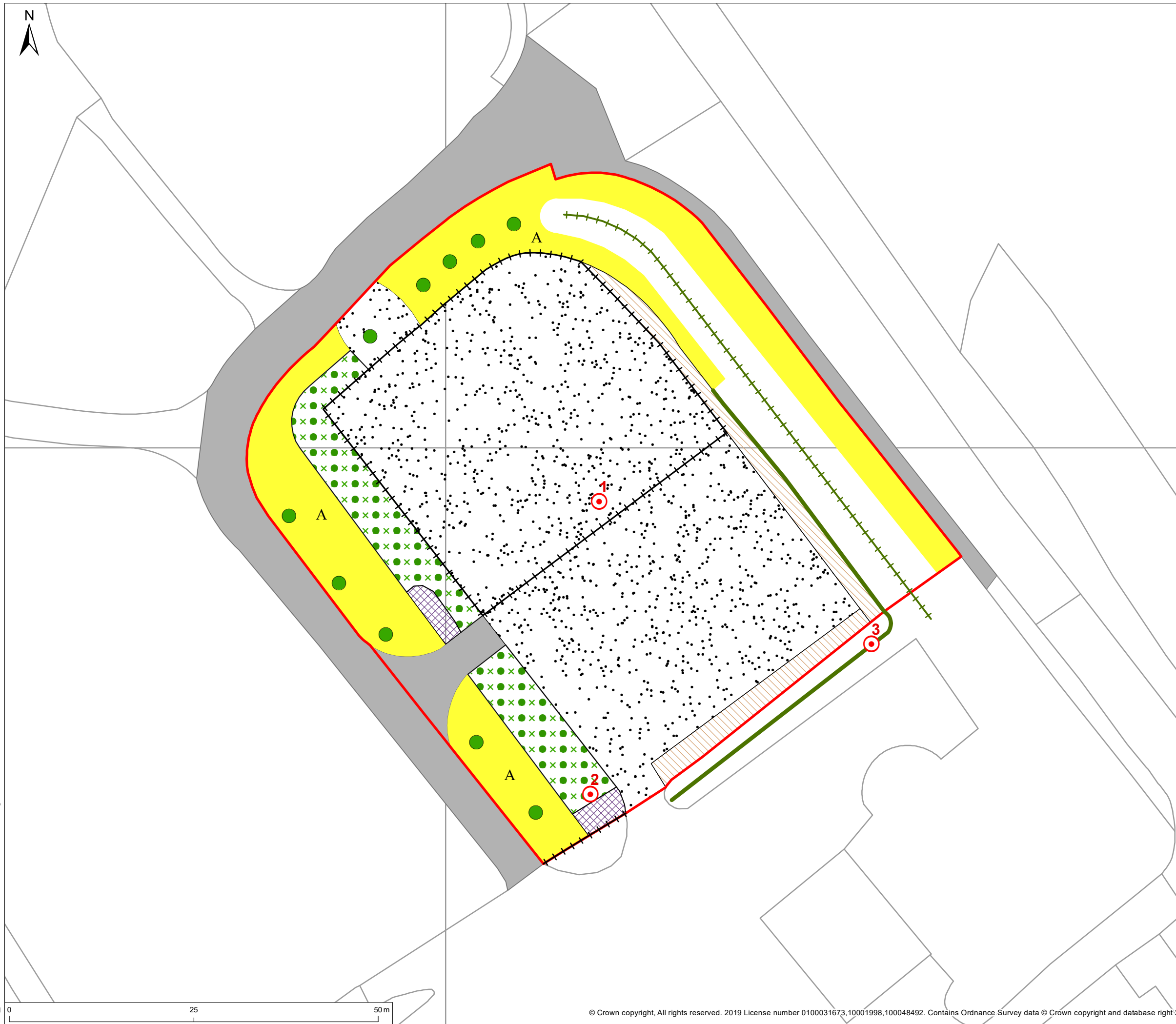
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Figures

Figure 2: Phase 1 Habitat Plan



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Legend

- Site boundary
- <all other values>
- Target note
- Broadleaved tree
- <all other values>
- Fence
- Species poor hedgerow
- Species poor hedgerow with trees
- Hardstanding
- Introduced shrub
- Amenity grassland
- Bare ground
- Scattered scrub
- Scattered scrub with trees
- Tall ruderal

Rev	Description	By	CB	Date



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Client **Mr R. Bratt**

Project **Cotefield farm**

Title **Phase 1 Habitat Plan**

Status **DRAFT** Drawn By **CR** PM/Checked By **KT**

Project Number **ECO00419** Scale @ A3 **1:500** Date Created **JUN 2019**

Figure Number **2** Rev **-**

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Photographs



Photograph 1: Area of bare ground and scattered trees, currently being used as a car park for the adjacent compound. View looking west.



Photograph 2: Part of hedgerow bordering site, showing gradient between tall ruderal, box hedgerow and tree line.

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Photograph 3: Amenity grassland and scattered trees in the north of the Site.



Photograph 4: Showing the extent of the compound and car park. View looking south-east.

Appendix 1

Phase 1 Habitat Survey Target Notes

TN No.	Description
1	CALA Homes compound and site car park – fenced off (Heras fencing) with no access. Predominantly bare ground bordered by tall ruderal and hedgerow
2	Small area of introduced shrub
3	Box hedgerow bordering site compound – approx. 1m x 2m x 30m. Wider section (2.5m along southern boundary

Appendix 2

Phase 1 Habitat Survey Species List

Annual meadow grass *Poa annua*
Ash *Fraxinus excelsior*
Beech *Fagus sylvatica*
Birch *Betula pendula*
Blackthorn *Prunus spinose*
Box *Buxus sempervirens*
Cherry laurel *Prunus laurocerasus*
Cow parsley *Anthriscus sylvestris*
Dandelion *Taraxacum sp.*
Dock *Rumex sp.*
Field maple *Acer campestre*
Geranium *Geranium sp.*
Hawthorn *Crataegus monogyna*
Hazel *Corylus avellana*
Holly *Ilex aquifolium*
Horse chestnut *Aesculus hippocastanum*
Ivy *Hedera helix*
Oak *Quercus robur*
Rosebay willowherb *Chamaenerion angustifolium*
Rose *Rosa sp.*
Stinging nettle *Urtica dioica*
Spruce *Picea sp.*
Spear thistle *Cirsium vulgare*
Willow *Salix fragilis*

Appendix 3

Protected and Notable Species Records

Records of protected and otherwise notable species provided by TVERC are summarised in the tables below. The number of records of each species is provided and the approximate distance from the Site boundary is given where a six figure (or greater) grid reference was provided. However, a six-figure grid reference provided a 100m square within which a species was recorded and therefore the distances provided are an approximation only. Species recorded as being 0m from the Site boundary could therefore be up to 100m from it.

Distances have not been provided for records with either a two or a four-figure grid reference and these are marked with an 'X' in the tables below.

Summary of protected and notable birds recorded within 2km of the Site.

Taxon Name	Common Name	Protected Status	Number of Records	Distance to site (closest record in m)
<i>Acanthis cabaret</i>	Lesser redpoll	UK BAP, NERC S41, Red	4	X
<i>Actitis hypoleucos</i>	Common sandpiper	Amber	1	X
<i>Alauda arvensis</i>	Skylark	UK BAP, NERC S41, Red	1	X
<i>Anas penelope</i>	Wigeon	Amber	1	X
<i>Anas platyrhynchos</i>	Mallard	Amber	1	X
<i>Anas strepera</i>	Gadwall	Amber	1	X
<i>Apus apus</i>	Swift	Amber	61	X
<i>Chroicocephalus ridibundus</i>	Black-headed gull	Amber	4	X
<i>Columba oenas</i>	Stock Dove	Amber	1	X
<i>Cuculus canorus</i>	Cuckoo	UK BAP, NERC S41, Red	1	X
<i>Cygnus olor</i>	Mute swan	Amber	4	X
<i>Dendrocopos minor</i>	Lesser spotted woodpecker	UK BAP, NERC S41, Red	1	X
<i>Emberiza calandra</i>	Corn bunting	UK BAP, NERC S41, Red	3	X
<i>Emberiza citronella</i>	Yellowhammer	UK BAP, NERC S41, Red	4	X
<i>Emberiza schoeniclus</i>	Reed bunting	UK BAP, NERC S41, Amber	5	X
<i>Falco subbuteo</i>	Hobby	WCA1	7	X

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Taxon Name	Common Name	Protected Status	Number of Records	Distance to site (closest record in m)
<i>Falco tinnunculus</i>	Kestrel	Amber	20	X
<i>Gallinago gallinago</i>	Snipe	Amber	3	X
<i>Larus fuscus</i>	Lesser black-backed gull	Amber	1	X
<i>Milvus milvus</i>	Red kite	WCA1, BDIR	9	X
<i>Motacilla cinerea</i>	Grey wagtail	Red	3	X
<i>Motacilla flava</i>	Yellow wagtail	UK BAP, NERC S41, Red	4	X
<i>Muscicapa striata</i>	Spotted flycatcher	UK BAP, NERC S41, Red	1	X
<i>Passer domesticus</i>	House sparrow	UK BAP, NERC S41, Red	3	X
<i>Passer montanus</i>	Tree sparrow	UK BAP, NERC S41, Red	8	X
<i>Perdix perdix</i>	Grey Partridge	UK BAP, NERC S41, Red	3	X
<i>Phylloscopus trochilus</i>	Willow warbler	Amber	1	X
<i>Pluvialis apricaria</i>	Golden plover	BDIR	1	X
<i>Poecile palustrus</i>	Marsh tit	UK BAP, NERC S41, Red	2	X
<i>Prunella modularis</i>	Dunnock	NERC S41, Amber	3	X
<i>Pyrrhula pyrrhula</i>	Bullfinch	UK BAP, NERC S41, Amber	4	X
<i>Scolopax rusticola</i>	Woodcock	Red	3	X
<i>Strix aluco</i>	Tawny owl	Amber	3	X
<i>Sturnus vulgaris</i>	Starling	UK BAP, NERC S41, Red	2	X
<i>Turdus iliacus</i>	Redwing	WCA1, Red	5	X
<i>Turdus philomelos</i>	Song thrush	UK BAP, NERC S41, Red	3	X
<i>Turdus pilaris</i>	Fieldfare	WCA1, Red	7	X
<i>Vanellus vanellus</i>	Lapwing	UK BAP, NERC S41, Red	1	X

Summary of bat records within 1km of the Site.

Taxon Name	Common Name	Protected Status	Number of Records	Distance to site (closest record in m)
<i>Myotis sp.</i>	Myotis bat	EPS, WCA5	2	650
<i>Nyctalus noctula</i>	Noctule bat	EPS, WCA5, UKBAP, NERC S41	2	645
<i>Pipistrellus pipistrellus</i>	Common pipistrelle	EPS, WCA5	5	645
<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle	EPS, WCA5, UKBAP, NERC S41	2	645
<i>Plecotus auritus</i>	Brown long-eared bat	EPS, WCA5, UKBAP, NERC S41	6	635

Summary of other protected and notable mammals recorded within 1km of the Site.

Taxon Name	Common Name	Protected Status	Number of Records	Distance to site (closest record in m)
<i>Erinaceus europaeus</i>	Hedgehog	UKBAP, NERC S41	1	760
<i>Meles meles</i>	Badger	PBA	7	410

Summary of protected and notable invertebrates recorded within 1km of the Site.

Taxon Name	Common Name	Protected Status	Number of Records	Distance to site (closest record in m)
<i>Pisidium tenuilineatum</i>	Fine-lined pea mussel	NERC S41	1	975

Summary of protected and notable plant, fungus and moss species recorded within 1km of the Site.

Taxon Name	Common Name	Protected Status	Number of Records	Distance to site (closest record in m)
<i>Silene flos-cuculi</i>	Ragged-robin	NT	1	830