
PRELIMINARY ECOLOGICAL APPRAISAL
(INCLUDING 2KM THIRD-PARTY DATA SEARCH)

LAND NORTH OF A47 NORMANDY WAY AND
WEST OF A447 ASHBY ROAD, HINCKLEY

ON BEHALF OF

RICHBOROUGH

REFERENCE: ZEL_477

DATE: JULY 2023

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Report Data	
Report Title	Preliminary Ecological Appraisal (including 2km third-party search)
Report Reference	ZEL_477
Client	Richborough
Application Site	Land north of A47 Normandy Way and west of A447 Ashby Road, Hinckley
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Rev	Report	Author	Date Issued
V1	Preliminary Ecological Appraisal	E. Seaton BSc (Hons) MCIEEM	17 November 2023
V2	Preliminary Ecological Appraisal	E. Seaton BSc (Hons) MCIEEM	12 January 2024
V3	Preliminary Ecological Appraisal	E. Seaton BSc (Hons) MCIEEM	1 March 2024

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Where any appraisal is based upon information provided by third parties, it is assumed that this information is relevant, correct and complete; there has been no independent verification of information obtained from third parties unless otherwise stated. Where field investigations have been carried out these have been appropriate to the agreed scope of works and carried out to a level of detail required to achieve the stated objectives.

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EXECUTIVE SUMMARY

- A Preliminary Ecological Appraisal (including 2km data search) was undertaken of the land north of A47 Normandy Way and west of A447 Ashby Road, Hinckley on 10 July 2023. The surveys were completed by E. Seaton (BSc, MCIEEM) and A. Elliot BSc (Hons) accordance with the Preliminary Ecological Appraisal Guidelines (CIEEM, 2017 2nd Edition) and the UK Habitat Classification system (UK Habitat Classification Working Group (2023)).
- Following the completion of the recommended further work (see below) formal Ecological Impact Assessment (EclA) is recommended for this site. EclA is required in order that the Local Planning Authority (LPA) can make a robust assessment of the development impacts in line with planning policy (e.g. NPPF, ODPM Circular 06/2005) and current best practice guidelines (CIEEM, 2018).

Further Survey Work Required

- Bat activity (transect) survey work will be required to establish the level of bat activity at the site following best practice guidelines (Collins, 2016). The transect surveys should be supported by static recording devices per transect, which will be left in place for 5 consecutive nights of recording per month.

Seasonal transect and automated surveys have been completed during July 2023 and October 2023. A final survey is to be completed during May 2024 (see Zebra Ecology, 2023a).

- Great crested newt surveys will be required of the ponds (P1-6) identified within 500m of the application site (see Appendix A Pond Plan) subject to suitability. The ponds may be sampled utilising the environmental DNA (eDNA) technique approved by Natural England (Biggs, 2014). Water samples must be collected by appropriately licensed personnel between 15 April and 30 June, to comply with current survey guidelines. If any ponds within 250m of the application site (P2, P4 and P6) are confirmed to support great crested newts, a population class assessment will need to be undertaken to inform a future Natural England development licence (if required). Population class assessments involve six visits being carried out between mid-March and mid-June with at least three visits occurring between mid-April and mid-May to estimate population size.

Great crested newt eDNA surveys were undertaken on all ponds (subject to access / holding water) within 500m of the application site on 28 June 2023. All ponds were returned as 'eDNA absent' (see Zebra Ecology, 2023b)

- A breeding bird scoping survey should be undertaken assess bird activity and any initial impacts on the ornithological importance of the site, based on the methods described by Fuller (1980). Survey methods will be derived from the Common Bird Census (CBC) territory mapping method devised by the British Trust for Ornithology (BTO) (Marchant, 1983). The survey should be completed in March. NOTE: further surveys (up to a total of six) may be required to be spaced evenly during the main breeding bird

season (March to early July) in line with emerging guidance (RSK Biocensus, 2021).

Breeding bird surveys have commenced at the site, with two of six visits to the site being completed during the 2023 breeding season (27 June 2023 and 3 July 2023). The remaining four visits will be undertaken during the early 2024 breeding period to capture data across the whole season (see Zebra Ecology, 2023c).

- An update riparian mammal (water vole / otter) survey should be completed along the distributary of the River Tweed tributary running along the eastern boundary of the site should works be proposed within 10m. The survey should be undertaken when water voles are actively defending territories between April – October. Otter field signs can be identified all year round, but spring is the optimal time of year when evidence is easiest to locate. Survey work should follow best practice guidelines (e.g. Dean *et al*, 2016).

An update riparian mammal survey was undertaken on 8 June 2023 and 26 September 2023. No evidence of water vole or otter were recorded (see Zebra Ecology, 2023d).

If any trees assessed as holding low (T79, T123¹) suitability for roosting bats require felling or significant arboricultural works, this must be carried out in a precautionary manner. Arboriculturists must avoid cutting into any potential roost features, removing them whole (including a buffer either side) and then carefully lowering the section to the ground and leaving overnight to allow any bats that are present but have not been discovered to disperse. If any bats or evidence of roosting bats are discovered at any point work must cease immediately, and a suitably qualified ecologist contacted.

- Further survey work will be required if any of the trees classified as holding moderate (T21, T51, T60, T70, T80, T114) or high (T68) suitability to support roosting bats are to be impacted by development (e.g. felling, tree-surgery, artificial night-lighting, habitat fragmentation). This should be in the form of either:
 - A tree-climbing inspection for bats (not seasonally constrained) to be undertaken by a qualified and licensed tree climber / ecologist. NOTE: if the results of the tree climbing inspection are inconclusive (e.g. inaccessible potential roosting features), further nocturnal survey work will be required.
 - Two (moderate) or three (high) nocturnal presence / absence surveys to be undertaken between May and September (with at least one falling between May and August) by suitably qualified ecologists.

Construction Environment Management Plan (CEMP)

Notwithstanding the results of the further survey work, a Construction Environment Management Plan (CEMP) should be written and agreed with the Local Planning Authority (LPA). The strategy will focus on retaining existing habitats of ecological value

¹ See Tree Constraints Plan within Appendix A for tree numbering and locations.

and minimising the impacts of construction on nearby designated sites and protected / notable species. The below will form key components of the strategy:

- Risk Avoidance Method Statement (RAMS) for protected species and their habitats (subject to further survey work).
- Retention of mature hedgerows and trees. All retained trees and hedgerows should be afforded adequate protection in line with '*BS5837: 2012 Trees in relation to design, demolition and construction*'.
- Pre-commencement check for badger setts to ensure full compliance with The Protection of Badgers Act, 1992.
- Implementation of a sensitive lighting strategy during construction to prevent illumination of wildlife habitats (hedgerows, trees). Any lighting must be low level and of the minimum wattage, as recommended by the Bat Conservation Trust (BCT) & Institute of Lighting Professionals (2018). Requirements to be informed by the bat transect and automated survey.

Landscape and Ecological Management Plan (LEMP)

Notwithstanding the results of the further survey work, a Landscape and Ecological Management Plan (LEMP) should be written and agreed with the Local Planning Authority (LPA). The plan will detail how the post-developed landscape will be managed and how the scheme will identify and pursue measurable net gains for biodiversity and ensure compliance with local and national Government policies (*e.g.*, National Planning Policy Framework). The below will form key components of the strategy:

- Provision of a range wildlife boxes and hibernacula (*e.g.*, bat, bird, reptile) to provide further enhancement for these species.
- Implementation of a hedgehog friendly habitat connectivity strategy, connecting urban garden habitats to each other and the wider environment.
- New planting and landscaping design and management prescriptions to provide foraging and nesting opportunities for a range of wildlife. Use of native species of local origin with a known benefit to wildlife to be incorporated into the planting scheme.

1.0 INTRODUCTION

Background to the Development

- 1.1 Zebra Ecology Ltd was commissioned by Richborough to undertake a Preliminary Ecological Appraisal (including 2km data search) of the land west of Ashby Road and north of Normandy Way (A47), Hinckley, Leicestershire (centred on Ordnance Survey grid reference SP 427 959).
- 1.2 The site is approximately 16ha in area and comprises species-poor modified grassland (cattle-grazed fields) with occasional scattered trees. The fields are bound by a combination of species-rich and native hedgerows. A tributary of Tweed River runs off-site along the western boundary. The application site boundary is shown in Figure 1.



Figure 1: Application Site Boundary

- 1.3 Planning consent is being sought from Hinckley and Bosworth Council for an 'Outline planning application with all matters reserved except for access, for the erection of up to 415 dwellings, associated open space, drainage, landscaping and infrastructure'.

Survey Objectives

- 1.4 The objectives of the survey were to:
 1. Undertake a Preliminary Ecological Appraisal (PEA) of the site to identify any suitably for protected / notable species and identify habitats or features of nature conservation significance;
 2. Identify the need for any additional Phase 2 surveys that may be required to inform an Ecological Impact Assessment (EclA);
 3. Identify any mitigation measures likely to be required, following the 'Mitigation

- Hierarchy’.
4. Identify opportunities to deliver ecological enhancement.

2.0 METHODOLOGY

Desk Study

- 2.1 Existing ecological and nature conservation data relevant to the site was collated from various sources including the Multi Agency Geographic Information for the Countryside (MAGIC) online database (<http://magic.defra.gov.uk>).
- 2.2 A 2km third-party data search was instructed by the client as part of this commission. This was undertaken by Leicestershire and Rutland Environmental Records Centre (LRERC) during July 2023 to identify any designated sites and protected / notable species within a 2km radius of SP 42751 95935. It should be noted that the absence of biological records for an area does not imply that taxa are not present.
- 2.3 A search of European statutory designated sites such as Special Areas of Conservation (SAC) or Special Protection Areas (SPA) within 5km of the site boundary was also undertaken.

Field Survey

- 2.4 A field survey was undertaken on 10 July 2023. The survey was completed by E. Seaton BSc (Hons) MCIEEM and A. Elliott BSc (Hons) in accordance with the Preliminary Ecological Appraisal Guidelines (CIEEM, 2017 2nd Edition) and the UK Habitat Classification system (UK Habitat Classification Working Group (2018a, 2018b & 2018c). This involved walking over the site, mapping the main habitat types and compiling target notes to identify particular areas of interest or concern. Plant species lists were also compiled.

Extended Phase 1 Survey / Protected Species Survey

- 2.5 Observations on the presence, or potential presence, of other protected species (e.g., badgers, nesting birds, great crested newts) were recorded in addition to the Habitat Survey. This information should not be relied on as a comprehensive assessment of the presence or otherwise of all protected species on the site. There are a wide range of protected species, many of them can occur on one site and most require specialist expertise to locate them and / or seasonal-critical survey techniques to confirm their presence, and this is outside of the scope of the present report. Where suitability has been identified, further Phase 2 surveys have been recommended.
- 2.6 The approach to ecological appraisal was based on the guidance published by the Chartered Institute of Ecology and Environmental Management (CIEEM) in the document Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017).

Ground-based Tree Roost Assessment

- 2.7 A ground-based tree assessment was undertaken by A. Elliott BSc (Hons) ACIEEM (Natural England bat CL18 licence ref: 2021-49562-CLS-CLS) on 10 July 2023. Survey methods followed the guidelines and techniques recommended in Mitchell-Jones (2004) and Collins (2016).
- 2.8 Trees were assessed as holding either high, moderate, low or negligible suitability to support roosting bats and categorised using definitions as per Collins (2016):

Table 1: Guidelines for Assessing the Suitability of Trees for Roosting Bats²

Suitability	Description: Structure
Negligible	Negligible features on the tree that are likely to be used by roosting bats.
Low	A tree of sufficient size and age to contain potential roosting features but with none seen from the ground or features with only very limited roosting potential.
Moderate	A tree with one or more potential roost features that could be used by bats due to their appropriate condition (i.e. size, shelter, protection) and surrounding habitat. However, it is unlikely to support a roost of high conservation value (with respect to roost type only).
High	A tree with one or more potential roost features 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 condition (i.e. size, protection, shelter) and surrounding habitat.
Confirmed Roost	Tree with confirmed bat roost.

Limitations

- 2.9 It should be noted that any survey based on a single site visit will miss a significant proportion of the species present on or using the site. As such this report includes an assessment of only the likely presence of notable species.

Planning Policies

- 2.10 The National Planning Policy Framework (NPPF) (Department for Communities and Local Government, 2023) provides guidance for Local Planning Authorities (LPAs) in creating development plans and determining applications. It states the following on habitats and biodiversity:
- 2.11 To protect and enhance biodiversity and geodiversity, plans 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.
- 2.12 When determining planning applications, local planning authorities should apply the following principles:

² Taken and adapted from: **Collins, 2016**.

- 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 reasons⁶³ 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 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.

Local Planning Policies – Hinckley & Bosworth Borough Council Core Strategy (Adopted December 2009)

Taken from the 'Vision' Section of the Core Strategy Document

Spatial Objective 9: Identity, Distinctiveness and Quality of Design

To ensure development contributes to the local distinctiveness of the borough and enhances both settlement identity and the environment through the quality of sustainable design. Design and other measures will be used to develop strong community identities and neighbourhood pride.

Spatial Objective 10: Natural Environment and Cultural Assets

To deliver a linked network of green infrastructure, enhancing and protecting the borough's distinctive landscapes, woodlands, geology, archaeological heritage and biodiversity and encourage its understanding, appreciation, maintenance and development.

Spatial Objective 12: Climate Change and Resource Efficiency

To minimise the impacts of climate change by promoting the prudent use of resources through sustainable patterns of development, investment in green infrastructure, minimising the use of resources and energy, increasing reuse and recycling of natural resources, increasing the use of renewable energy technologies and minimising pollution, including greenhouse gas emissions.

3.0 UK HABITAT CLASSIFICATION SURVEY

- 3.1 The results of the Habitat Survey are presented below. A Habitat Map can be seen in Appendix A with target notes. Photographs that display some of the habitats can be seen in Appendix B.

Modified Grassland (Cattle Grazed) – g4

- 3.2 The grassland is divided into five main fields. All fields comprise cattle-grazed modified grassland with <9 species per m² present. The vegetation is dominated by fast-growing grasses on fertile, neutral soils. The sward is dominated by perennial ryegrass *Lolium perenne* with additional species noted such as cock's-foot *Dactylis glomerata*, soft brome *Bromus hordeaceus*, Yorkshire-fog *Holcus lanatus*, timothy *Phleum pratense*, meadow foxtail *Alopecurus pratensis* and common bent *Agrostis capillaris*. Herbaceous species recorded include dandelion *Taraxacum sp.*, white clover *Trifolium repens*, creeping thistle *Cirsium arvense*, creeping buttercup *Ranunculus repens*, common chickweed *Stellaria media*, common sorrel *Rumex acetosa*, common mouse-ear *Cerastium fontanum*, creeping cinquefoil *Potentilla reptans* and germander speedwell *Veronica chamaedrys*.

Hedgerows & Field Margins

- 3.3 Twenty-five hedgerows are present within the application site. A description of the hedgerows is provided in Table 2.

Table 2: Hedgerow Description and Species Composition

Hedgerow Reference	Description and Species Composition
H1	Species-rich native hedgerow with trees averaging c.4m in height. Species recorded include hazel, elder, sycamore, blackthorn and crab apple. Ash and field maple trees are also present.
H2	Species-rich hedgerow native with trees averaging c.4m in height. Species recorded include hawthorn, bramble, ash, rose sp., elder and blackthorn.
H3	Species-rich native hedgerow with trees averaging c.2m in height. Hawthorn dominated with other species recorded including bramble, rose sp., hazel, blackthorn and field maple. Two large ash trees are also present.
H4	Species-rich native hedgerow with trees averaging c.1.5m in height. Species recorded include ash, hawthorn, bramble, variegated holly, sycamore, pedunculate oak, <i>Malus sp.</i> , horse chestnut and common lime.
H5	Native hedgerow averaging c.1.5m in height. Species recorded include hawthorn, bramble and elder.
H6	Species-rich native hedgerow with trees averaging c.3m in height. Species recorded include holly, ash, bramble, blackthorn, <i>Salix sp.</i> , elder, elm, hawthorn, common lime and field maple.
H7	Species-rich native hedgerow with trees averaging c.1.5m in height. Species recorded include blackthorn, hawthorn, elm, bramble, ash and field maple.
H8	Species-rich native hedgerow with trees averaging c.3m in height. Species recorded include holly, ash, bramble, blackthorn, <i>Salix sp.</i> , elder, elm, hawthorn, and field maple.
H9	Native hedgerow averaging c.2.5m in height and comprising hawthorn and bramble.
H10	Species-rich native hedgerow with trees averaging c.2.5m in height. Species recorded include hawthorn, hazel, elm, ash and holly.

H11	Native hedgerow averaging c.2m in height. Hawthorn dominated.
H13	Species-rich native hedgerow with trees averaging c.2m in height. Species recorded include hawthorn, ash, elder, blackthorn, bramble and hazel.
H14	Native hedgerow with trees averaging c.2.5m in height. Species recorded include hawthorn with field maple and ash trees.
H15	Species-rich native hedgerow averaging c.2m in height. Species recorded include blackthorn, hawthorn, elm, bramble, elder and beech.
H16	Native hedgerow with trees averaging c.2.5m in height. Species include hawthorn, elder, bramble and ash trees.
H17	Species-rich native hedgerow with trees averaging c.2.5m in height. Species recorded include hawthorn, rose sp., blackthorn, elm and bramble, <i>Salix</i> sp. and ash trees are also present.
H18	Species-rich native hedgerow averaging c.2m in height. Species recorded hawthorn, blackthorn, holly, hazel and elm.
H19	Native hedgerow averaging c.2m in height. Species recorded include hawthorn and hazel.
H20	Native hedgerow averaging c.2m in height. Species recorded include bramble, hawthorn, elder, elm and blackthorn.
H21	Species-rich native hedgerow with trees averaging c.2m in height. Species recorded include hawthorn, bramble, blackthorn, hazel, <i>Salix</i> sp. and elder.
H22	Species-rich native hedgerow with trees averaging c.1.75m in height. Species recorded include ash, bramble, blackthorn, hawthorn, rose sp. and elder.
H23	Species-rich native hedgerow with trees averaging c.1.75m in height. Species recorded include hawthorn, bramble, blackthorn, ash, elder and elm.
H24	Native hedgerow averaging c.2.5m in height. Hawthorn dominant with other species recorded including bramble and elder.

Hedgerows 4, 12 and 25 have been omitted due to layout updates.

4.0 RESULTS

STATUTORY / NON-STATUTORY SITES

Statutory Designated Sites

4.1 Nine statutory sites are present within 10km of the application site:

- Burbage Common & Woods (LNR) located c.1.7km south-east.
- Burbage Wood and Aston Firs (SSSI) located c.2.5km south-east.
- Kendall's Meadow (SSSI) located c.3.5km north-west.
- Crofts Hill (SSSI) located c.7.9km east.
- Croft Pasture (SSSI) located c.7.9km east.
- Croft and Huncote Quarry (SSSI) located c.8km east.
- Ashby Canal (SSSI) located c.9.2km north-west.
- Ensor's Pool (SSSI, SAC, LNR) located c.9.2km south-west.
- Boon's Quarry (SSSI) located c.9.4km west.

Non-statutory Designated Sites

4.2 Three 'notified' Local Wildlife Sites (LWS), seven 'potential' LWS and five 'candidate' LWS have been returned within 2km of the application site. None are from within the current application site. The nearest falls within Phase I application site. This is for five ash trees along Normandy Way supporting deadwood located c.0.3km west. The trees were assigned as a candidate LWS in 2021.

PROTECTED AND NOTABLE SPECIES

Bats

4.3 There are no buildings suitable for roosting bats within the redline.

4.4 A number of trees were recorded to hold roosting suitability for bat species. Full details are provided with Table 3 below:

Table 3: Trees and Bat Roost Suitability

Tree Species / Number	Description and Bat Roosting Suitability
Ash (T21)	Early-mature tree. Large open knot hole that may provide cavity for roosting bats. Advancing ash dieback with moderate deadwood. Moderate suitability
Ash (T51)	Mature tree with ivy coverage. Advancing ash dieback and deadwood. Moderate suitability
Ash (T60)	Mature tree with advancing ash dieback Heavily ivy-clad and deadwood present. Moderate suitability
Ash (T63)	Mature tree with ash dieback associated with crown. No roosting features observed from ground level but sufficient stature, age and condition to support. Low suitability
Ash (T68)	Mature tree with extensive damage to trunk, fungal fruiting body observed with deadwood and knot holes recorded. High suitability
Ash (T70)	Mature tree with deadwood and knot holes recorded. Ash dieback advancing. Moderate suitability
Ash (T79)	Mature tree with minor deadwood. No potential roosting features observed from ground level but sufficient stature, age and condition to support. Low suitability
Ash (T80)	Mature tree with ivy coverage. Minor deadwood present. Moderate suitability
Ash (T114)	Mature tree with ivy coverage. Advancing ash dieback with moderate deadwood. Fungal bracket present 10m into crown. Moderate suitability
Ash (T123)	Mature tree. Advancing ash dieback with light ivy coverage. No potential roosting features observed from ground level but sufficient stature, age and condition to support. Low suitability

- 4.5 The application site, particularly the unmanaged hedgerows and River Tweed Tributary offer suitable bat foraging habitat for commuting and foraging bat species. A bat transect and automated survey was completed for the adjoining Phase I application during 2022. Occasional bat activity was recorded during the walked transect surveys from at least five species: common pipistrelle, soprano pipistrelle, brown long-eared bat and big bat. *Myotis* sp. was also detected during automated surveys. The majority of activity recorded was from common pipistrelle (>79% across automated surveys).
- 4.6 The third-party data search has returned records from common pipistrelle, soprano pipistrelle, brown long-eared bat, whiskered bat, Daubenton's, Natterer's, *Myotis* sp., noctule, Leisler's and barbastelle.

Great crested Newts

4.7 There are no waterbodies offering suitable breeding opportunity for great crested newt *Triturus cristatus* within the application site. A pond is located along the northern boundary of the site on the Ordnance Survey map. However, no pond or remnants of a pond was observed in this location during the survey. A further six ponds (P1-P6) were identified within 500m of the application site.

- Pond 1 – located c.350m west of the site.
- Pond 2 – located c.288m north-west of the site.
- Pond 3 – located c.401m north of the site.
- Pond 4 – located c.206m north of the site.
- Pond 5 – located c.436m east of the site.
- Pond 6 – located c.182m east of the site.

4.8 The application site boundary and surrounding ponds are shown in Figure 1:

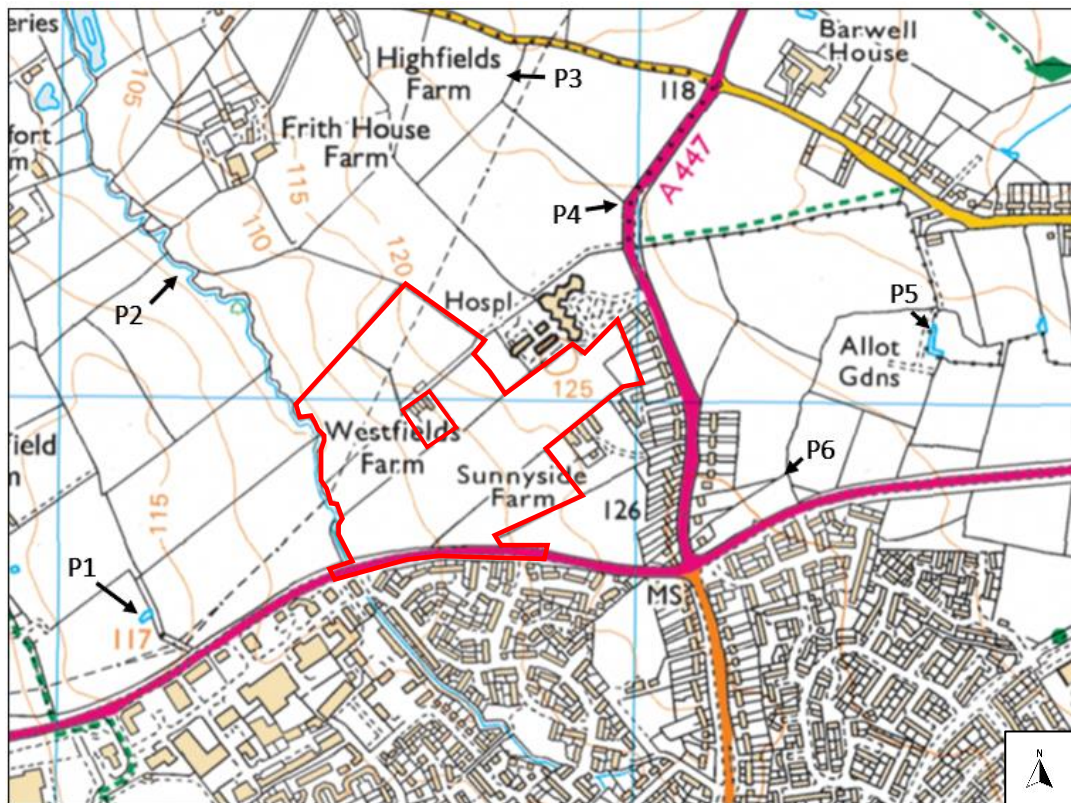


Figure 2: Ponds within 500m of the Application Site

4.9 Fourteen records for great crested newt were returned by the third-party data search. The closest record was returned from a pond located c.0.65km south-east.

Reptiles

- 4.10 The grazed grassland does not provide the structural heterogeneity to support common reptile species such as slow worm, common lizard and grass snake.
- 4.11 Two grass snake and one adder record have been returned by the third-party data search. The closest record is a grass snake located c.1km north-east of the application site.

Birds

- 4.12 Nine species of birds were seen and / or heard incidentally during the survey including three birds (woodpigeon *Columba palumbus*, house sparrow *Passer domesticus* and wren *Troglodytes*) of conservation concern (Stanbury *et al.*, 2021).

Table 4: Bird species recorded at the site

Bird Species	Conservation Concern (Stanbury <i>et al.</i> , 2021)
Buzzard <i>Buteo buteo</i>	Green
Woodpigeon <i>Columba palumbus</i>	Amber
Carrion crow <i>Corvus corone</i>	Green
Blue tit <i>Cyanistes caeruleus</i>	Green
Great tit <i>Parus major</i>	Green
House sparrow <i>Passer domesticus</i>	Red
Magpie <i>Pica pica</i>	Green
Wren <i>Troglodytes troglodytes</i>	Amber
Blackbird <i>Turdus merula</i>	Green

- 4.13 The extensive boundary hedgerows and trees on site (especially within the orchards) offer a suitable nesting and foraging resource for birds. The species-rich hedgerows with fruiting species such as hawthorn and blackthorn offer over-winter foraging opportunities for frugivorous birds, such as redwings and fieldfare (Henderson, Vickery and Carter, 2004).
- 4.14 A breeding bird survey was completed for the adjacent Phase 1 application site between May-July 2022. A total of 32 species were recorded including 15 'notable' species.

Badgers

- 4.15 No badger setts or evidence of badgers (latrines, prints, snuffle holes) was recorded during the survey.
- 4.16 An active badger sett has been recorded within the adjacent Phase 1 application site. Three entrance holes are present with a badger recorded using one entrance during February 2022.

Hazel Dormice

- 4.17 The last record of hazel dormice in Leicestershire is from 1987. A survey completed in 2009 of seven woods (positive for dormice in the past) found no evidence of their presence. Hazel dormice are now believed to be absent in Leicestershire (O'Brien & Ingram, 2009).
- 4.18 Leicestershire is also not classified as supporting 'widespread' or 'scattered' populations of hazel dormice based on records attained from The National Dormouse Inventory (Bright *et*

al, 2006). No records of hazel dormice have been returned within 2km of the survey site by the third-party data search.

Riparian Mammals

- 4.19 The brook (tributary of the River Tweed) running along the eastern boundary of the site is a vegetated, slow-flowing waterbody c.200m in depth. It provides broadly suitable habitat for water vole and as a commuting route for otter.
- 4.20 Records of water vole have been returned from a Hinckley ditch / stream west of Normandy way located c.1.8m south-west. Water voles are also known to be present within Brodick Road Flood Retention Area (LWS) located c.2.1m south-west of the application site.
- 4.21 A riparian mammal survey was completed during September 2022 to support the Phase 1 application. No field signs from otter or water vole were recorded.

Other Mammals (Section 41 Species)

- 4.22 The following mammals listed under Section 41 (S41) of the Natural Environment and Rural Communities Act 2006 have been returned within 2km of the site: polecat, brown hare and hedgehog. It would not be unexpected that all pass through the site.

Invertebrates

- 4.23 No other triggers were identified to suggest that the habitats on-site support interesting or notable assemblage of invertebrates.
- 4.1 A white-clawed crayfish record has been returned from the River Itchen (Deppers Bridge) located c.2000m west of the application site. The record is from 2000. Two other records of signal crayfish (invasive, non-native) have been returned in 2015 (Ashby Canal) and 2019 (Big Pit). The signal crayfish records are located c.1400m west and south-east respectively.
- 4.2 The brook and ditches on-site are of limited suitability for white-clawed crayfish due to absence of the following habitat requirements:
 - o Refuges (overhanging banks, rocks, woody vegetation etc.) absent along brook and ditches.
 - o Constant water levels – ditches at risk of drying out during summer.
 - o Suitable substrates – brook and ditches comprise mud / silt rather than hard substrates. Vegetation providing shelter and food – none / very limited present along ditches.

5.0 CONCLUSION AND RECOMMENDATIONS

- 5.1 The following have been identified which may represent constraints or opportunities within future development of the site. Recommended measures for the avoidance of impacts on identified features of nature conservation interest and opportunities by which development of the site can maintain and enhance the current value of the site have been outlined.

STATUTORY / NON-STATUTORY SITES

Designated Sites

- 5.2 The Natural England SSSI Impact Risk Zones used to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites was consulted via the government's multi-agency website MAGIC (www.magic.gov.uk). As the application is not for livestock & poultry units with floorspace >500m² or general combustion processes, it is not anticipated that Natural England will need to be consulted on this application.
- 5.3 Although no formal assessment has been undertaken, it is not anticipated that the proposals will impact any of the non-statutory sites.

PROTECTED AND NOTABLE SPECIES

Bats

- 5.4 The boundary hedgerows may provide valuable commuting and foraging habitat for a variety of bat species. The presence of known roosts (common pipistrelle, brown long-eared bat and Natterer's bat) increases this likelihood.
- 5.5 Continuous lighting such as along hedgerows can create barriers that many species cannot cross, especially slower-flying species such as *Plecotus* and *Myotis* sp. (Fure, 2012); therefore, implementation of a sensitive lighting strategy (or complete avoidance) is likely to be essential to avoid impacts upon foraging / commuting bat species.
- 5.6 Further bat activity transect work will be required throughout the season to establish the level / location of bat activity and species present to inform future mitigation requirement and enhancement opportunity.
- 5.7 It is currently unknown whether any trees holding suitability for roosting bats will be impacted by the proposals. If any trees assessed as holding low (T79, T123³) suitability for roosting bats require felling or significant arboricultural works, this must be carried out in a precautionary manner. Arboriculturists must avoid cutting into any potential roost features, removing them whole (including a buffer either side) and then carefully lowering the section to the ground and leaving overnight to allow any bats that are present but have not been discovered to disperse. If any bats or evidence of roosting bats are discovered at any point work must cease immediately, and a suitably qualified ecologist contacted.
- 5.8 Further survey work will be required if any of the trees classified as holding moderate (T21, T51, T60, T70, T80, T114) or high (T68) suitability to support roosting bats are to be impacted

³ See Tree Constraints Plan within Appendix A for tree numbering and locations.

by development (e.g. felling, tree-surgery, artificial night-lighting, habitat fragmentation). This should be in the form of either:

- A tree-climbing inspection for bats (not seasonally constrained) to be undertaken by a qualified and licensed tree climber / ecologist. NOTE: if the results of the tree climbing inspection are inconclusive (e.g. inaccessible potential roosting features), further nocturnal survey work will be required.
- Two (moderate) or three (high) nocturnal presence / absence surveys to be undertaken between May and September (with at least one falling between May and August) by suitably qualified ecologists.

Great Crested Newts

- 5.9 It is unknown whether great crested newts are present within any of the on-site ponds or surrounding waterbodies. Therefore, further survey work will be required to confirm the presence / absence of great crested newts within the surrounding waterbodies (up to 500m) to inform future mitigation requirements (if confirmed present).

Birds

- 5.10 As a result of the size of the site, on-site and nearby notable bird records and suitable nesting / foraging habitats, further survey work should be completed for breeding birds to determine the ornithological importance of the site and assess anticipated impacts.

Badgers

- 5.11 A pre-commencement badger check walkover should be carried out due to the mobility of badgers and possibility of new sett establishment to ensure full compliance with The Protection of Badgers Act, 1992.

Riparian Mammals

- 5.12 It is understood that a link road will be constructed over the brook; therefore, an update riparian mammal (water vole / otter) survey should be completed.

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APPENDIX A

Plans

- UK Habitat Classification Plan / Biodiversity Net Gain Baseline
- Tree Constraints Plan



-  Application boundary
-  Developed land; sealed surface
-  Modified grassland
-  Vegetated garden
-  Native hedgerow
-  Native hedgerow with trees
-  Species-rich native hedgerow
-  Species-rich native hedgerow with trees
-  Other rivers and streams
-  Existing Small Rural Tree



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PROJECT

Hinkley North Phase II

DRAWING TITLE

Habitat Plan / Biodiversity Net Gain Baseline

CLIENT

Richborough Estates Ltd

DATE

February 2024

DRAWING NUMBER

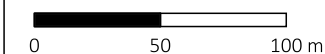
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VERSION

3

DRAWN BY

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Richborough Estates

ZTL 117

Hinckley North (Phase 2)

ZTL 101

Tree Constraints Plan

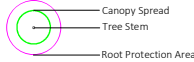
date July 2023

status Draft

rev B

KEY.

Trees / Groups



A Category Tree
(High quality / retention value)

B Category Tree
(Moderate quality / retention value)

C Category Tree
(Low quality / retention value)

U Category Tree
(No remaining retention value)



scale

1:1000 @ A1

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APPENDIX B

Photographs



Photograph 1: view across Field 1 (F1)



Photograph 2: view across Field 5a (F5a)



Photograph 3: view across Field 5c (F5c).



Photograph 4: view across Field 4 (F4).



Photograph 5: view across Field 6 (F6)



Photograph 6: view along the tributary of the River Tweed (western boundary).

APPENDIX C

Legislation and Planning Policy

Badgers

Badgers are protected in the UK under the Protection of Badgers Act (1992), making it an offence to:

- Kill, injure or take a badger;
- Intentionally or recklessly interfere with a badger sett. Sett interference includes damaging, destroying or obstructing access to a sett and disturbing badgers while they occupy a sett.

Bats

All species of bat in Britain are 'European Protected Species' and are protected under the Conservation of Habitats and Species Regulations 2017, and the Wildlife and Countryside Act 1981, as amended by the Countryside & Rights of Way Act 2000. These pieces of legislation combine to give substantial protection to bats and their habitats, making it an offence to:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat;
- Intentionally or recklessly obstruct access to a bat roost.

Common Reptiles

In Britain there are four relatively widespread native species of reptile: the adder; grass snake common lizard and slow worm. These species are protected via part of Section 9(1) of the Wildlife & Countryside Act 1981 (as amended) against:

- Intentional killing and injuring;
- Selling, offering or exposing for sale.

Two other species of reptile: the sand lizard and smooth snake are 'European Protected Species'. It is illegal to injure, kill, disturb, capture, keep or sell them, or to damage or destroy the habitats in which they live.

Great Crested Newt

The great crested newt is a 'European Protected Species' and is listed on both Annex II and IV of the EC Habitats Directive. The Directive is transposed into UK law through the Conservation of Habitats and Species Regulations 2017. They are also protected by the Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act 2000. These pieces of legislation combine to give substantial protection to great crested newts and their breeding ponds and terrestrial habitat, making it an offence to:

- Deliberately capture, injure or kill a great crested newt;
- Intentionally or recklessly disturb a great crested newt in a structure or place that they use for shelter or protection or deliberately disturb a group of a great crested newts;
- Damage or destroy a great crested newt resting place/shelter (even if they are not occupying it at the time);
- Possess or advertise/sell/exchange a great crested newt (dead or alive) or any part of a great crested newt (including eggs and all life-stages);
- Intentionally or recklessly obstruct access to a great crested newt resting place/shelter.

Nesting Birds

All wild bird nests are protected under The Wildlife and Countryside Act 1981 (as amended), making it an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting.

The barn owl is included in the list of strictly protected fauna and appears in Appendix II of the Berne Convention (Convention on the Conservation of European Wildlife and Natural 37 Habitats). They are also afforded protection under Schedule One of the Wildlife and Countryside Act (1981). This act has been amended on several occasions, most recently by the Countryside and Rights of Way (CROW) Act 2000, the Natural Environment and Rural Communities (NERC) Act 2006 and by the Conservation of Habitats and Species Regulations 2010 and 2017, making it an offence to:

- Intentionally and recklessly disturb barn owls whilst they are building a nest or are in, on or near a nest containing eggs or young, or to disturb their dependent young.

Otters

The European otter is the only native UK otter species. It is a European protected species (EPS) and is also fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). It is an offence to:

- Capture, kill, disturb or injure otters (on purpose or by not taking enough care); -
- Damage or destroy a breeding or resting place (deliberately or by not taking enough care);
- Obstruct access to their resting or sheltering places (deliberately or by not taking enough care);
- Possess, sell, control or transport live or dead otters, or parts of otters.

Water voles

Water voles are protected in the UK under the Conservation of Habitats and Species Regulations, 2017 and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This legislation makes it an offence to:

- Intentionally kill, take or injure a water vole;
- Possess or control any live or dead water vole, or any part or derivative (not including water voles bred in captivity under licence);
- Intentionally or recklessly damage, destroy or block access to a water voles place of shelter or protection (on purpose or by not taking enough care);
- Intentionally or recklessly disturb a water vole whilst it is occupying a structure or place which it uses for shelter or protection (on purpose or by not taking enough care).

National Planning Policy Framework (NPPF)

The National Planning Policy Framework (NPPF) states that the planning system should contribute to and enhance the natural and local environment by:

- Recognising the wider benefits of ecosystem services;
- Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

Other key principles of the NPPF relating to biodiversity are:

- The conservation of International and National statutorily designated sites;
- Protection of ancient woodland and veteran trees;
- The creation, protection, enhancement and management of networks of biodiversity and green infrastructure;
- The preservation, restoration and recreation of priority habitats and ecological networks;
- The recovery of priority species populations.

Habitats and Species of Principal Importance

The NERC Act, 2006 requires the Secretary of State to publish lists of habitats and species which are of principal importance for the conservation of biodiversity in England, Wales and Scotland. The lists replace the UK Biodiversity Action Plans (UK BAP) and have been drawn up in consultation with Natural England, Natural Resources Wales and Scottish Natural Heritage as required by the Act. Section 7 of the Environment (Wales) Act, 2016 has now replaced the duty in section 41 of the NERC Act in relation to Wales, with a duty on public authorities to seek to maintain and enhance biodiversity. The lists are used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 41 of NERC Act and section 7 of the Environment (Wales) Act, 2016, to have regard to the conservation of biodiversity when carrying out their normal functions.

Habitats of Principal Importance

Habitats of principal importance (HPI) are included on the lists. These are all the habitats in England, Wales and Scotland that were identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework.

Species of Principal Importance

Species of principal importance (SPI) are included on the lists. These are the species found in England, Wales and Scotland which were identified as requiring action under the UK BAP and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework.

Biodiversity Action Plan (BAP) Habitats and Species

The UK Biodiversity Action Plan (HMSO 1995, 1998; UKBAP 2007) lists species and habitats which have undergone significant declines in recent years and for which conservation is a priority in order to preserve biodiversity in the UK. The BAPs provide a list of actions to be implemented to halt or reverse these declines. These species and habitats are identified as Habitats and Species of Principal Importance for the conservation of biological diversity in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act, planning policy and underpinning guidance (ODPM, 2005)

APPENDIX D

Qualifications and Experience

Zebra Ecology Ltd is Registered Practice of the Chartered Institute of Ecology and Environmental Management (CIEEM). A comprehensive range of ecological services are offered including Preliminary Ecological Appraisal (PEA), Ecological Impact Assessment (EclA), Habitat Regulations Assessment (HRA), Biodiversity Impact Assessment (BIA) and European Protected Species (EPS) Surveys / Licensing.

The practice works closely work closely with clients to achieve their aspirations alongside securing the best outcomes for the environment. With wildlife legislation and policy as its basis; commercial awareness, pragmatism and defensible advice is combined to form Zebra Ecology's approach.

As well as offering a wide range of ecological services, Zebra Ecology forms part of Zebra Group offering an in-house collaborative approach in conjunction with Zebra Architects, Zebra Landscape Architects, Zebra Trees and Zebra Land and Development.

Andrew Elliott BSc (Hons)

Andy holds a BSc (Hons) degree in Biological Sciences (Zoology) from the University of Birmingham, and has a particular passion for ornithology, as well as social ecology. Since graduating, Andy has spent considerable time on the African continent, contributing to research projects in fields such as evolutionary sociality in birds, black rhinoceros behavioural ecology and linear infrastructure wildlife-mortality mitigation. Andy holds a Class 1 survey licence for bats, and has a broad range of consulting experience, working on large and small-scale projects across the UK.

Emma Seaton BSc (Hons) MCIEEM

Emma holds a BSc (Hons) degree in Biology from the University of Sheffield and has since gained a postgraduate certificate in Ecological Consultancy. Her ecological experience includes Preliminary Ecological Appraisals, Ecological Impact Assessments (EclA), surveying for notable / European Protected Species, mitigation / licensing advice and providing Continued Professional Development (CPD) sessions for developers on Biodiversity Net Gain. She has held Natural England survey licences for bats (Class 2), great crested newts and white-clawed crayfish since 2015. She is also a Registered Consultant under the Bat Mitigation Class Licence (BMCL) licence and Earned Recognition (ER) consultant under the Natural England pilot project. Emma is a Full member of the Chartered Institute of Ecology and Environmental Management.