

11409: PARCELS A3 AND A5, GREAT WILSEY PARK, HAVERHILL REDROW HOMES

Ecological Assessment (Pursuant to Condition 4 of DC/15/2151/OUT)

Version	Created By	Approved By	Date
vf	Sam Wheeler	Rob Whitlock	30.05.25

This report has been prepared by the following:



Sam Wheeler BSc
Ecologist

This report has been reviewed and approved by the following:



Rob Whitlock BSc, MRes, ACIEEM
Associate Director

COPYRIGHT

The copyright of this document remains with Ecology Solutions. The contents of this document therefore must not be copied or reproduced in whole or in part for any purpose without the written consent of Ecology Solutions.

PROTECTED SPECIES

This report contains sensitive information relating to protected species. The information contained herein should not be disseminated without the prior consent of Ecology Solutions.

Contents

1. Introduction	1
2. Survey Methodology	3
3. Ecological Features	13
4. Wildlife Use of The Site	17
5. Evaluation and Discussion	45
6. Planning Policy Context	59
7. Summary and Conclusions	65

Plans

PLAN ECO1	Site Location and Ecological Designations
PLAN ECO2	Ecological Features
PLAN ECO3a	Bat Activity Transect Survey Results 24.08.22
PLAN ECO3b	Bat Activity Transect Survey Results 21.09.22
PLAN ECO3c	Bat Activity Transect Survey Results 18.05.23
PLAN ECO3d	Bat Activity Transect Survey Results 14.06.23
PLAN ECO3e	Bat Activity Transect Survey Results 10.07.23
PLAN ECO3f	Bat Activity Transect Survey Results 12.10.23
PLAN ECO3g	Bat Activity Transect Survey Results 28.04.25
PLAN ECO4a	Bat Remote Survey Results 2022 and 2023
PLAN ECO4b	Bat Remote Survey Results 11 to 15 April 2025
PLAN ECO5a	Dormouse Survey Results 2023
PLAN ECO5b	Dormouse Survey Results 2025
PLAN ECO6a	Wintering Bird Survey Results 22.12.22
PLAN ECO6b	Wintering Bird Survey Results 23.01.23
PLAN ECO6c	Wintering Bird Survey Results 15.02.23
PLAN ECO6d	Wintering Bird Survey Results 29.01.25
PLAN ECO6e	Wintering Bird Survey Results 10.02.25
PLAN ECO6f	Wintering Bird Survey Results 26.02.25
PLAN ECO7a	Breeding Bird Survey Results 19.04.23
PLAN ECO7b	Breeding Bird Survey Results 24.05.23
PLAN ECO7c	Breeding Bird Survey Results 19.06.23

PLAN ECO7d	Breeding Bird Survey Results 08.04.25
PLAN ECO8a	Reptile Survey Results 2023
PLAN ECO8b	Reptile Survey Results 2025
PLAN ECO9	Pond Locations and Great Crested Newt eDNA Survey Results 2025

Photographs

PHOTOGRAPH 1	Cereal crops (Parcel A5)
PHOTOGRAPH 2	Other neutral grassland
PHOTOGRAPH 3	Bramble scrub
PHOTOGRAPH 4	Tall forbs
PHOTOGRAPH 5	Bare ground
PHOTOGRAPH 6	Hedgerow H2
PHOTOGRAPH 7	Ditch D2
PHOTOGRAPH 8	Tree BP1

Appendices

APPENDIX 1	Information downloaded from Multi-Agency Geographic Information for the Countryside (MAGIC)
APPENDIX 2	Badger Survey and Assessment (Confidential)
APPENDIX 3	Wintering Bird Survey Results
APPENDIX 4	Breeding Bird Survey Results
APPENDIX 5	Hedgehog Gateways
APPENDIX 6	Reptile Hibernacula
APPENDIX 7	Great Crested Newt eDNA Report from SureScreen Scientifics

1. Introduction

1.1. Background and Proposals

- 1.1.1. Ecology Solutions was commissioned in March 2023 to undertake an ecological assessment of Parcels A3 and A5 at Great Wilsey Park in Haverhill, hereafter referred to as the site (see Plan ECO1).
- 1.1.2. The proposals relate to a Reserved Matters Application (RMA) regarding a residential development including infrastructure, access and landscaping (planning reference: DC/15/2151/OUT).
- 1.1.3. This Ecological Assessment specifically addresses Condition 4 of the RMA. This condition is as follows:

Any reserved matters planning application shall be supported by further supplementary ecological surveys to inform the preparation and implementation of corresponding phases of ecological measures required by the Environmental Statement. The supplementary surveys shall be of an appropriate type for the habitats and/or species affected by the proposals and survey methods shall follow national good practice guidelines.

Reason: To ensure that wildlife habitats and protected species are not affected adversely by the development.

1.2. Site Characteristics

- 1.2.1. The site, which is situated to the northeast of the town of Haverhill in Suffolk, is bordered to the east by a private driveway and arable fields, to the south by woodland and to the west by Great Field Plantation and a former arable field (Parcel A2) currently subject to construction works. The northern boundary is undefined, being a continuation of the arable field that dominates Parcel A3.
- 1.2.2. The site is dominated by two arable fields planted with cereal crops accompanied by modified and other neutral grassland, Bramble *Rubus fruticosus* scrub, tall forb, bare ground, rural tree, species-rich native hedgerow and ditch field margin habitats.

1.3. Ecological Assessment

- 1.3.1. This document assesses the ecological interest of the site based on extant and updated survey work. The importance of the habitats within the site is evaluated with due consideration given to the guidance published by the Chartered Institute of Ecology and Environmental Management (CIEEM)¹.
- 1.3.2. Where necessary, mitigation measures are recommended so as to safeguard any significant existing ecological interest within the site and, where

¹ CIEEM (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Version 1.2 – Updated April 2022. CIEEM, Winchester.

appropriate, potential enhancement measures are put forward and reference made to both national and local biodiversity priorities.

2. Survey Methodology

- 2.1. The methodology utilised for the survey work can be split into three areas, namely desk study, habitat survey and faunal survey. These are discussed in more detail below.

2.2. Desk Study

- 2.2.1. In order to compile background information on the site, Ecology Solutions contacted Suffolk Biodiversity Information Service (SBIS) and Essex Field Club (EFC).
- 2.2.2. Further information on designated sites from a wider search area was obtained from the online Multi-Agency Geographic Information for the Countryside (MAGIC)² database which uses information held by Natural England and other organisations. This information is reproduced at Appendix 1 and, where appropriate, on Plan ECO1.

2.3. Habitat Survey

- 2.3.1. The site was surveyed in November 2023, and again in May 2025, based on UK Habitat (UKHab)³ Classification methodology, as recommended by Natural England.
- 2.3.2. UKHab is a comprehensive system for mapping and recording habitats designed to provide a simple and robust approach to surveying and monitoring and replaces the Phase 1 survey methods. UKHab comprises of a principal hierarchy ranging from level 1 (ecosystems) to level 5 (defined habitats including Annex 1 habitats). For these surveys, all primary habitats were recorded to level 4 minimum. Secondary habitats are also used to provide further information on a main primary habitat, where appropriate.
- 2.3.3. Primary and secondary habitats were classified and mapped, together with an assessment of the species composition of each habitat. This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential which require further survey. Any such areas identified were then be examined in more detail.
- 2.3.4. Using the above method, the site was classified into areas of similar botanical community types, with a representative species list compiled for each habitat identified.
- 2.3.5. All the species that occur within each habitat would not necessarily be detectable during survey work carried out at any given time of the year since different species are apparent at different seasons. Given the latest habitat survey was conducted within the optimal period for botanical surveys, it is considered that a sufficient coverage of the species present will have been obtained to enable an accurate assessment of all on-site habitats.

² <http://www.magic.gov.uk>.

³ UKHab Limited (2023). *UK Habitat Classification Version 2.0*. Available at: <https://ukhab.org>.

2.4. Faunal Survey

2.4.1. Obvious faunal activity, such as birds or mammals observed visually or by call during the course of the surveys, was recorded. Specific attention was paid to any potential use of the site by protected, priority, or other notable species.

2.4.2. In addition to general observation of faunal activity, specific surveys have been completed for Badgers *Meles meles*, bats, Otters *Lutra lutra*, Water Voles *Arvicola amphibius*, Hazel Dormice *Muscardinus avellanarius*, birds, reptiles and Great Crested Newts *Triturus cristatus*.

Badger Survey

2.4.3. The methodology for the Badger surveys is included at Appendix 2

Bat Survey

Tree Survey

2.4.4. All on-site trees were assessed for their potential to support roosting bats in November 2023 and May 2025. Features typically favoured by bats, or evidence of past use by bats, were searched for including:

- Obvious holes, e.g. rot holes and old Woodpecker holes;
- Dark staining on a tree below a hole;
- Tiny scratch marks around a hole from bats' claws;
- Cavities, splits and / or loose bark from broken or fallen branches, lightning strikes etc; and
- A very dense covering of mature Ivy *Hedera helix* over a tree trunk.

Activity Transect Survey

2.4.5. Activity transect surveys have been undertaken in August and September 2022, May, June, July and October 2023 and April 2025, with a further two surveys planned for Summer (June to August) and Autumn (September to October) 2025.

2.4.6. These surveys comprise surveyors equipped with Echo Meter Touch 2 PRO bat detectors walking transects that cover the majority of the site, with the aim of identifying any foraging and commuting bats. In order to maximise the encounter rate of bats (i.e. of both early- and late-emerging species), the transects commence around sunset and continue for approximately 120 minutes.

2.4.7. The surveyors record the behaviour of any observed bats, i.e. foraging or commuting, together with noting the species and number of bats present at that location. Bat calls are recorded by the detectors, with these later reviewed and analysed via Kaleidoscope software.

- 2.4.8. Surveys were conducted when the night-time temperature was above 10°C. The insectivorous diet of bats means there is little to no food available when the temperature falls below this level, with this considered to potentially suppress bat activity such that it would not accurately reflect the value of the application site for this group. The weather conditions for the surveys were recorded and any limitations noted.

Remote Survey

- 2.4.9. The activity transect surveys were complemented by the deployment of a single SM4BAT bat detector in the north-eastern corner of Great Field Plantation in August, September and October 2022 and April, May, June, July, September and October 2023. Given the extent of intervening time since the completion of these surveys, a further seven remote surveys are planned to be completed monthly between April and October 2025, of which only the first (April) has been undertaken to date. To provide a more thorough assessment of the site, these updated surveys utilise four SM4BAT bat detectors positioned in the north-eastern and south-eastern corners of Great Field Plantation, the northern extent of Hedgerow H1 and the southern extent of Hedgerow H3.
- 2.4.10. These SM4BAT bat detectors are programmed to record from 30 minutes before sunset until 30 minutes after sunset and are deployed for a period of at least five consecutive nights. The recorded bat registrations are subsequently analysed via Kaleidoscope software.
- 2.4.11. All field surveys were undertaken with regard to best practice guidelines issued by Natural England (2004⁴), the Joint Nature Conservation Committee (JNCC) (2004⁵) and the Bat Conservation Trust (2016⁶ and 2023⁷).

Otter Survey

- 2.4.12. Otters, being a large mammalian predator, are present in watercourses of varying sizes ranging from small lakes to rivers, estuaries and coasts.
- 2.4.13. The site was assessed for its suitability to support Otters in combination with other protected species surveys conducted across 2023, in addition to May 2025. During these visits, the following signs were sought for:
- Spraint – Irregular, sometimes short, rounded segments containing fish bones, scales or crayfish parts;
 - Footprints of Otters in soft substrates along the watercourse, typically 8cm wide and 10cm long;
 - Holts and couches on the banks of the watercourse; and;

⁴ Mitchell-Jones, A. J. (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.

⁵ Mitchell-Jones, A.J. & McLeish, A.P. (Eds.) (2004). *Bat Workers' Manual*. 3rd edition. JNCC, Peterborough.

⁶ Collins, J. (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. 3rd Edition. The Bat Conservation Trust, London.

⁷ Collins, J. (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines*. 4th Edition. The Bat Conservation Trust, London.

- Slides on the banks of the watercourse.

Water Vole Survey

- 2.4.14. The site was assessed for its suitability to support Water Voles in combination with other protected species surveys conducted throughout 2023, as well as in May 2025.
- 2.4.15. These surveys, which follow guidance by Natural England, consist of a close examination of all on-site ditches and their banks up to two metres from the water's edge for the characteristic field signs of Water Voles. These signs include:
- Faeces - 8-12 mm long and 4-5 mm wide with blunt ends;
 - Latrines - Water Voles will deposit the majority of their droppings at points of their territory boundary;
 - Feeding Stations – Water voles often bring pieces of cut vegetation to favoured feeding stations close to the water's edge;
 - Burrows - Typically 4-8 cm in diameter and found in the river / ditch bank;
 - Footprints of Water Vole in soft substrates along the ditches; and;
 - Animals / Water Voles that may be observed directly.

Dormouse Survey

Nest Tube / Nest Box Survey

- 2.4.16. Nest tube and nest box surveys for Dormouse were undertaken monthly between May and September 2023 inclusive, targeting suitable woodland and hedgerow habitat on and adjacent to site.
- 2.4.17. Features of importance to Dormice include diverse well-structured hedgerows offering a range of food sources throughout the year. Good arboreal links through the canopy layer of hedgerows / woodlands are required, along with suitably dense cover for nest sites and good hibernation sites.
- 2.4.18. Typical indicator tree / plant species include Hazel *Corylus avellana*, Honeysuckle *Lonicera periclymenum* and Bramble, but a mix of other species (such as Oak *Quercus robur*, Ash *Fraxinus excelsior*, Sycamore *Acer pseudoplatanus*, Blackthorn *Prunus spinosa* and Hawthorn *Crataegus monogyna*) can prove equally important and the presence of food sources throughout the active period for Dormice, coupled with the presence of suitable hibernation sites, is of more importance than the presence / absence of any one key indicator species.
- 2.4.19. The survey technique involves the installation and checking of nest tubes and nest boxes within all habitats within the habitats considered to be species-rich or of potential value to Dormice.

- 2.4.20. The Dormouse nest tubes / boxes utilised were those approved as standard by the Mammal Society. In total, 100 nest tubes and two nest boxes were deployed within the woodland and hedgerow habitats on and adjacent to site in 2023.
- 2.4.21. Nest tubes / boxes were placed in accordance with the guidance provided by the Mammal Society and Natural England⁸. Typically, tubes are placed within scrub, hedgerows and woodland approximately every 20m where suitable locations can be identified. Nest boxes are placed at lower densities but in similarly selected locations as for nest tubes. The nest tubes were attached with wire ties underneath suitably sturdy horizontal branches and positioned approximately 1.5m above ground level on average.

The survey has been scored for effort according to the method developed from the South West Dormouse Project and carried through in the second edition of The Dormouse Conservation Handbook (English Nature, 2006)⁹. The system used provides an overall score that reflects the chances of Dormice being discovered if present and thus provides an indicator of the 'thoroughness' of a survey. This score is based on the number of tubes used and the number of months the tubes were in place. The months of the year are weighted according to the likelihood of recording Dormice, as set out in Table 2.1 below.

Table 2.1. Monthly Score Weighting for Dormouse surveys (Chanin & Woods 2003).

Month	Weighting
April	1
May	4
June	2
July	2
August	5
September	7
October	2

⁸ Chanin, P. & Woods, M. (2003). *Surveying Dormice Using Nest Tubes – Results & Experiences from the South West Dormouse Project*. Research Report 524. English Nature, Peterborough.

⁹ English Nature (2006). *The Dormouse Conservation Handbook*. English Nature, Peterborough.

Month	Weighting
November	2

- 2.4.22. Generally speaking, the index of effort is calculated based on the use of 50 nest tubes as a standard minimum. The total number of nest tubes deployed across the survey period was 100, with a further two nest boxes. Tubes were deployed in suitable habitats at the recommended frequency of approximately every 20m and, therefore, this is considered to be reasonable survey effort.
- 2.4.23. A score of 20 (or above) is deemed a thorough survey and a score of 15 to 19 may be regarded as adequate where circumstances do not permit more time or more tubes (particularly if other survey methods have also given negative results). A score of 20 has been achieved.
- 2.4.24. The site does not contain areas dominated by Hazel and therefore hazelnut searches were not employed as part of the Dormouse survey effort.
- 2.4.25. Due to the extent of intervening time that has elapsed since the completion of the initial Dormice surveys, a series of updated surveys for this species are currently underway, with 80 dormice tubes deployed on-site towards the beginning of April 2025 and an initial survey undertaken in late April 2025. Further surveys are planned throughout 2025, to be completed in line with recently published guidance from the Mammal Society¹⁰.

Footprint Tunnel Survey

- 2.4.26. A series of footprint tunnel surveys were also undertaken throughout 2023 in concert with the nest tube and box surveys. The application of these tunnels, which have been shown to have a higher detection rate for areas of scrub and hedgerow than nest tube and box surveys alone, followed the recommendations of the Suffolk Wildlife Trust¹¹.
- 2.4.27. Footprint tunnels comprise 65mm square drainpipe tubing containing a plywood insert lined with a sheet of high-quality white card. A non-toxic ink, made from a mix of olive oil and pharmaceutical grade charcoal powder, is applied to ink pads at both entrances, which when passed over will transfer ink from the mammal's feet onto the white card.
- 2.4.28. A total of 76 footprint tunnels were situated along a transect within areas of suitable habitat at approximately 15 to 20m apart and at a height of approximately 1 to 1.5m off the ground, depending on the habitat present. The

¹⁰ Bullion, S., Wolton, R. & White, I. (2025). *Hazel Dormouse Conservation Handbook – Third edition*. The Mammal Society. ISBN: 978-1-0687982-3-8.

¹¹ Bullion, S., Looser, A. and Langton, S. (2018). An Evaluation of the Effectiveness of Footprint Tracking Tunnels for Detecting Hazel Dormice. *In Practice*, (101), pp.36-41.

tunnels were checked monthly to re-ink the pads and change the white card, where required.

- 2.4.29. Dormice have a distinctive footprint compared to those of other small mammals that may use the tunnels, with Dormice displaying three obvious triangles when a good print is captured.
- 2.4.30. As per the nest tube surveys, a series of updated footprint tunnel surveys are also currently underway, with 60 tunnels deployed in early April 2025. These surveys will follow recently published guidance from the Mammal Society, with two surveys per month planned to be completed between May and July 2025.

Birds

- 2.4.31. Three wintering bird surveys were conducted by Ecology Solutions in December 2022 and January and February 2023. Due to the extent of elapsed time since the completion of these, a further three wintering bird surveys were subsequently undertaken in January, mid-February and late-February 2025.
- 2.4.32. Three breeding bird surveys were undertaken by Ecology Solutions in April, May and June 2023. Again, given the extent of intervening time since the completion of these, an updated breeding bird survey has also been conducted in April 2025, with a further two such surveys planned for May and June 2025.
- 2.4.33. These surveys are undertaken during suitable weather conditions, with each survey consisting of an experienced ornithologist slowly walking a circuit of the site designed to take in all the different on-site habitats and allow visual inspections of all the open habitats, recording the locations, numbers and activity of all bird species present in (and around) the area. Each survey lasted approximately three hours. This methodology ensures that the majority of species that use the site would be recorded over the course of the three visits, although some species that may use the site as part of a larger territory may be missed, particularly nocturnal species such as owls.
- 2.4.34. To ascertain the breeding status of birds using the site, the following criteria were applied following the methodology used in the 'Atlas' surveys of 1988-1991 (Gibbons *et al.*, 1993¹²). This accepts the following activities as denoting breeding (including those probably breeding although definite proof was lacking):
- Bird apparently holding territory;
 - Courtship and display;
 - Nest-building (including excavating nest-hole);

¹² Gibbons, D.W., Reid, J.B., & Chapman, R.A. (1993). *The New Atlas of Breeding Birds in Britain and Ireland: 1988-1991*. T. & A.D. Poyser, London.

- Distraction display or feigning injury;
- Adult carrying faecal sac or food;
- Adult entering or leaving an apparently occupied nest site;
- Nest with eggs or eggshells found, or bird sitting but not disturbed;
- Nest with young; or downy young of ducks, game-birds, waders and other nidifugous species; and
- Recently fledged young.

Reptile Survey

- 2.4.35. Specific surveys for reptiles were carried out between May and June 2023. The methodology utilised was principally derived from guidance given in Froglife Advice Sheet 10¹³, the Herpetofauna Workers' Manual¹⁴, the Herpetofauna Groups of Britain and Ireland's (HGBI) advisory note¹⁵ and Natural England's Standing Advice for Reptiles¹⁶.
- 2.4.36. Areas of suitable field boundary habitat were surveyed for the presence of reptiles using artificial refugia ("tins"). These tins provide shelter and heat up more quickly than the surroundings in the morning and can remain warmer than the surroundings in the late afternoon. Being ectothermic (cold blooded), reptiles use them to bask under and raise their body temperature which allows them to forage earlier and later in the day. A total of 157 0.5m x 0.5m roofing felt tins were deployed across site in 2023.
- 2.4.37. To determine presence / absence the tins are checked for reptile activity over seven visits at appropriate times of the day (avoiding the middle of the day when the ambient air temperature is at its highest) in accordance with Natural England guidance. Optimum weather conditions for reptile surveying are temperatures between 10°C and 17°C, intermittent or hazy sunshine and little or no wind.
- 2.4.38. Due to the extent of intervening time since the initial reptile surveys conducted in 2023, Ecology Solutions is currently undertaking a series of seven updated presence / absence surveys for this group. As such, a total of 170 reptile tins were deployed on-site in early April 2025, with the first survey completed on 28 April 2025.

Great Crested Newt Survey

Habitat Suitability Survey

¹³ Froglife (1999) *Reptile Survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation*. Froglife Advice Sheet 10. Froglife, Halesworth.

¹⁴ Gent, T and Gibson, S. (2003). *Herpetofauna Workers' Manual*. JNCC, Peterborough.

¹⁵ HGBI. (1998). *Evaluating Local Mitigation / Translocation Programmes: Maintaining Best Practice and Lawful Standards*.

¹⁶ Natural England (2011). *Standing Advice for Reptiles*. Available at: http://www.naturalengland.org.uk/Images/Reptile%20Feb11_tcm6-21712.pdf

- 2.4.39. The Habitat Suitability Index (HSI) for the Great Crested Newt was developed by Oldham et al. (2000)¹⁷ and was undertaken on the off-site ponds in April 2025, where access could be obtained, according to guidance set out by the National Amphibian and Reptile Recording Scheme.
- 2.4.40. The HSI is a numerical index, for which scores between 0 and 1 indicate the suitability of the habitat for Great Crested Newts. The scoring system is shown in Table 2.2 below.

Table 2.2. Suitability for a pond to support Great Crested Newts in relation to its HSI score.

HSI Score	Pond Suitability
<0.5	Poor
0.5 to 0.59	Below Average
0.6 to 0.69	Average
0.7 to 0.79	Good
>0.8	Excellent

eDNA Survey

- 2.4.41. To determine the presence / absence of Great Crested Newts in off-site ponds within 500m of the site not separated by a dispersal barrier, eDNA testing was undertaken in April 2025, where access could be obtained.
- 2.4.42. Testing for eDNA is a relatively new method to establish presence / absence of Great Crested Newts approved by Natural England. While residing within a waterbody, Great Crested Newts deposit traces of DNA which can be detected through sampling the pond water and undergoing analysis within the laboratory. Water samples can be collected between 15 April and 30 June inclusive.
- 2.4.43. Water samples of any given waterbody are taken in 20 separate locations, with a focus towards areas of high suitability for Great Crested Newts. The samples are then pooled together into a self-supporting Whirl-pak Bag. Once the pooled samples have been mixed thoroughly, 15ml of water is removed and transferred into an ethanol filled test tube. This is repeated a further five

¹⁷ Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). *Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus)*. Herpetological Journal 10 (4), 143-155.

times leaving six test tubes that contain a mix of the sampled water and ethanol. These are then sent to a laboratory to undergo analysis.

- 2.4.44. Within the laboratory the samples are pooled together and tested via real time PCR (or q-PCR) in order to amplify select parts of the DNA allowing it to be detected and measured. A result of presence or absence is returned by the laboratory. However, if found to be present, no measure of the population size is obtained through this survey method.

3. Ecological Features

3.1. Habitat surveys were undertaken in November 2023 and again in May 2025, with the following main habitat / vegetation types identified:

- Cereal crops
- Modified grassland;
- Other neutral grassland;
- Bramble scrub;
- Tall forbs;
- Bare ground;
- Rural trees;
- Species-rich native hedgerows; and
- Ditches.

3.2. The locations of these habitats are shown on Plan ECO2.

3.3. Cereal Crops (c1c5)

3.3.1. Parcels A3 and A5 are both dominated by arable farmland planted with a cereal crop (see Photograph 1).

3.4. Modified Grassland (g4)

3.4.1. A relatively small area of modified grassland forms the northern field boundary of Parcel A5. This comprises a similar, albeit considerably reduced, array of species to the adjacent / nearby other neutral grassland field margins detailed below and has been subject to regular disturbance from farm machinery, forming a distinct track along its length and resulting in a high percentage of bare ground.

3.4.2. Modified grassland also forms the eastern bank of Ditch D3, with this being a continuation of modified grassland located adjacent to site along the eastern boundaries of Parcels A3 and A5. These areas have a limited species richness, being dominated by Cocksfoot *Dactylis glomerata* alongside frequent Creeping Buttercup *Ranunculus repens*, occasional Oxeye Daisy *Leucanthemum vulgare*, Ribwort Plantain *Plantago lanceolata* and Creeping Cinquefoil *Potentilla reptans* and rare Cow Parsley *Anthriscus sylvestris*, Creeping Thistle *Cirsium arvense*, Hogweed *Heracleum sphondylium*, Bird's-foot Trefoil *Lotus corniculatus*, Burnet *Sanguisorba* sp., Dandelion *Taraxacum officinale* and Common Nettle *Urtica dioica*.

3.5. Other Neutral Grassland (g3c)

- 3.5.1. Other neutral grassland with a relatively long sward height forms the majority of the field boundaries for both Parcels A3 and A5 (see Photograph 2).
- 3.5.2. The species assemblage of this habitat is dominated by grasses including Creeping Bent *Agrostis stolonifera*, False Oatgrass *Arrhenatherum elatius*, Brome *Bromus* sp., Cocksfoot, Tufted Hair-Grass *Deschampsia cespitosa*, Common Couch *Elymus repens*, Yorkshire Fog *Holcus lanatus* and Perennial Ryegrass *Lolium perenne*. Additional species present include locally common *Centaurea nigra* and Ribwort Plantain and rare Yarrow *Achillea millefolium*, Agrimony *Agrimonia eupatoria*, Cow Parsley, Spear Thistle *Cirsium vulgare*, Wild Carrot *Daucus carota*, Willowherb *Epilobium* sp., Horsetail *Equisetum* sp., Hedge Bedstraw *Galium album*, Cleavers *Galium aparine*, Cut-leaved Cranesbill *Geranium dissectum*, Dovesfoot Cranesbill *Geranium molle*, Herb Robert *Geranium robertianum*, Ground Ivy *Glechoma hederacea*, Ivy, Bristly Ox-tongue *Helminthotheca echioides*, Hogweed, Prickly Lettuce *Lactuca serriola*, Dead-nettle *Lamium* sp., Oxeye Daisy, Cowslip *Primula veris*, Meadow Buttercup *Ranunculus acris*, Creeping Buttercup, Bramble, Dock *Rumex* sp., Common Ragwort *Senecio jacobaea*, Groundsel *Senecio vulgaris*, Red Campion *Silene dioica*, Sow-thistle *Sonchus* sp., Common Comfrey *Symphytum officinale*, Dandelion, Colts-foot *Tussilago farfara* and Common Nettle. A small number of saplings of species found within the adjacent species-rich native hedgerows are also found within this habitat.

3.6. Bramble Scrub (h3g)

- 3.6.1. A small parcel of Bramble dominated scrub is present towards the south-eastern corner of Parcel A3 (see Photograph 3). Additional species present include Cow Parsley, Hawthorn, Horsetail, Cleavers, Hogweed, Dog Rose *Rosa canina*, Common Nettle and Field Speedwell *Veronica persica*.

3.7. Tall Forbs (16)

- 3.7.1. A small area of tall forbs is present beneath an Oak tree associated with the eastern boundary of Parcel A5 (see Photograph 4). This habitat comprises of dominant Common Nettle, alongside occasional Cow Parsley and Ivy.

3.8. Bare Ground (510)

- 3.8.1. A bare ground track is situated along the western extent of the southern boundary of Parcel A3, linking the adjacent off-site field to the west (Parcel A2) with Parcel A5 (see Photograph 5). An additional small patch of bare ground is present towards the south-eastern corner of Parcel A5 surrounding a manhole cover. These areas are devoid of flora.

3.9. Rural Trees (203)

- 3.9.1. Two mature Oaks and a mature Goat Willow *Salix caprea* are associated with Hedgerow H2, along the southern boundary of Parcel A3. An additional mature Oak is present within Hedgerow H3, along the eastern boundary of Parcel A5.

3.10. Species-rich Native Hedgerows (h2a5)

- 3.10.1. Hedgerows H1 and H2 form the western and southern boundaries of Parcel A3 respectively (see Photograph 6). These hedgerows, which are separated by an access point towards the south-western corner of Parcel A3, are unmanaged and are approximately 3m tall and wide. Species present include abundant Dogwood *Cornus sanguinea*, Blackthorn and Bramble, occasional Hazel, Hawthorn and Elm *Ulmus* sp. and rare Goat Willow.
- 3.10.2. Hedgerow H3 is a well-managed hedgerow of a similar height and width to Hedgerows H1 and H2 that forms the eastern boundary of Parcel A5. The species assemblage of this feature includes dominant Field Maple *Acer campestre* and Hawthorn, in addition to occasional Sycamore, Ash, Blackthorn and Bramble and rare Oak, Dog Rose and Elder *Sambucus nigra*.

3.11. Ditches (r1g -50)

- 3.11.1. Ditches D1, D2 and D4 are situated directly underneath Hedgerows H1, H2 and H3 respectively. At the time of the first habitat survey in November 2023 these were found to contain between 30mm and 50mm of water flowing towards the south-eastern corner of the site, however, during the latest habitat survey in May 2025 they were all found to be dry. Given the degree of shading from the oversailing hedgerows, the banks of these ditches supported a very sparse coverage of ground flora, comprising predominantly of Ivy and moss, with a high percentage of bare ground present (see Photograph 7).
- 3.11.2. Ditch D3, which lies along the eastern boundary of Parcel A3, differs to the other on-site ditches in that it is not associated with a hedgerow. During the November 2023 habitat survey, the northern section of this ditch was found to be dry while the southern portion contained approximately 50mm water flowing south. No water was present within this ditch as of May 2025. The flora on the eastern bank of this ditch comprises modified grassland, detailed above, while the flora on the western bank of the ditch is a continuation of the adjacent other neutral grassland field boundary accompanied by locally dominant Willowherb and Bramble.

3.12. Background Records

- 3.12.1. EFC returned a single protected species listed under the Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This record relates to a Bluebell *Hyacinthoides non-scripta* observed approximately 1km south of the site in 2021.
- 3.12.2. No species listed under the Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) were returned by SBIS. This desk study did return three records for Crested Cow-wheat *Melampyrum cristatum* though, a species listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 and on the UK Biodiversity Action Plan (UKBAP). The closest of these records is located approximately 1km north-west of the site and dates from 2021. The other two records, which date from 2023, relate to a location approximately 1km beyond the southern site boundary.

- 3.12.3. EFC recorded six species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), including: Three-cornered Garlic *Allium triquetrum*, New Zealand Pigmyweed *Crassula helmsii*, Giant Hogweed *Heracleum mantegazzianum*, Himalayan Balsam *Impatiens glandulifera*, Japanese Rose *Rosa rugosa* and Perfoliate Alexanders *Smyrnum perfoliatum*. Except for the Himalayan Balsam, all these species were most recently recorded in 2021 at an approximate distance of between 2km and 2.2km beyond the southern site boundary. The closest record relates to a Japanese Rose observed approximately 1km beyond the southern site boundary earlier in 2021.
- 3.12.4. An additional single species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) was returned by SBIS. This record pertains to a Rhododendron *Rhododendron ponticum* recorded in 2018 at a location approximately 0.9km west of the site.
- 3.12.5. There is no evidence to suggest that any protected, notable or invasive species, including those mentioned above, would be present on or adjacent to site.

4. Wildlife Use of The Site

- 4.1. General observations were made during the surveys of any faunal use of the site, with specific attention paid to the potential presence of protected, priority, or otherwise notable species. Specific surveys have been completed regarding Badgers, bats, Otters, Water Voles, Hazel Dormice, birds, reptiles and Great Crested Newts.

4.2. Badgers

- 4.2.1. For reasons of animal welfare, Badgers are considered in Confidential Appendix 2.

4.3. Bats

Tree Survey

- 4.3.1. All trees on and directly adjacent to site were appraised for their suitability to support roosting bats in November 2023 and May 2025. Two mature Oak trees, labelled BP1 and BP2 on Plan ECO2, were considered to contain Potential Roosting Features (PRFs) that could offer roosting opportunities for individual or very small numbers of bats in the form of broken branches and loose bark (see Photograph 8). As such, these trees have been categorised as PRF-I under the guidance.

Activity Transect Survey

- 4.3.2. To ascertain the general abundance of foraging and commuting bats across site, Ecology Solutions has conducted a total of seven activity transect surveys in August and September 2022, May, June, July and October 2023 and April 2025. The results of these surveys are illustrated on Plans ECO3a to ECO3g respectively.
- 4.3.3. The surveys were undertaken in favourable weather conditions, with these, alongside the timings of the surveys, summarised in Table 4.1 below.

Table 4.1. Activity survey timings and conditions.

Date	Survey Type	Sunset	Survey Start	Survey End	Cloud Cover (%)	Temperature (°C)	Weather and Wind
24.08.22	Activity Transect Survey	20:01	20:01	22:01	75	26 to 22	Dry
21.09.22	Activity Transect Survey	19:00	19:00	21:00	75	16	Calm and dry
18.05.23	Activity Transect Survey	20:50	20:50	22:50	62.5	13 to 10	Light air and dry
14.06.23	Activity Transect Survey	21:22	21:22	23:22	0	19 to 15	Light air and dry

Date	Survey Type	Sunset	Survey Start	Survey End	Cloud Cover (%)	Temperature (°C)	Weather and Wind
10.07.23	Activity Transect Survey	21:16	21:16	23:16	75	20 to 17	Moderate breeze and dry
12.10.23	Activity Transect Survey	18:10	18:10	20:10	100	13	Light air and dry
28.04.25	Activity Transect Survey	20:18	20:18	22:18	50	15 to 11	Light air and dry

Activity Survey 24.08.22

- 4.3.4. The results of the activity survey completed on 24 August 2022 are summarised below and in Table 4.2¹⁸ and are illustrated on Plan ECO3a.
- 4.3.5. This survey recorded a moderate level of bat activity which was relatively evenly distributed around the field boundary habitats. The registrations were dominated by Common Pipistrelle *Pipistrellus pipistrellus*, with this species comprising 83% of the recorded bat calls. Both this species and Soprano Pipistrelle *Pipistrellus pygmaeus*, the distant second most abundant bat species recorded over the course of this survey, were observed utilising the eastern boundary of Great Field Plantation for foraging purposes.
- 4.3.6. Two registrations for *Myotis* sp. and a single registration for Brown Long-eared Bat *Plecotus auritus* and the relatively rare Barbastelle *Barbastella barbastellus* were also recorded. In the latter instance, this related to a single registration at a location adjacent to the north-eastern corner of Great Field Plantation approximately 52 minutes after sunset.

Table 4.2. Activity survey results 24.08.22.

Species	Number of Registrations	First Recording After Sunset
Ppip	40	43 mins
Ppyg	4	1 hr 27 min
Myo	2	40 mins
Pa	1	40 mins

¹⁸ In all cases the following abbreviations are used: Ppip – Common Pipistrelle, Ppyg – Soprano Pipistrelle, Pnat – Nathusius' Pipistrelle, Psp – *Pipistrellus* sp., Nn – Noctule, Nl – Leisler's Bat, Es – Serotine, Myo – *Myotis* sp., Pa – Brown Long-eared Bat, Bb – Barbastelle.

Species	Number of Registrations	First Recording After Sunset
Bb	1	52 mins
Total	48	

Activity Survey 21.09.22

- 4.3.7. The results of the activity survey completed on 21 September 2022, which are illustrated on Plan ECO3b, are summarised below and in Table 4.3.
- 4.3.8. This survey recorded a relatively low level of level of bat activity, with under half the registrations of the previous month. Common Pipistrelle was again the most dominant species, forming 71% of the registrations recorded. This species was accompanied by four Soprano Pipistrelle calls in addition to a single Barbastelle which was observed foraging off-site beyond the western boundary 41 minutes after sunset.

Table 4.3. Activity survey results 21.09.22.

Species	Number of Registrations	First Recording After Sunset
Ppip	12	35 mins
Ppyg	4	26 mins
Bb	1	41 mins
Total	17	

Activity Survey 18.05.23

- 4.3.9. The results of the activity survey completed on the above date are summarised below and in Table 4.4 and are illustrated on Plan ECO3c.
- 4.3.10. This survey recorded a similarly low level of bat activity as the previous survey, with only 21 registrations. This activity, which was relatively evenly distributed around the field boundary habitats, also comprised of a similar species composition to the prior survey, with Common Pipistrelle forming 61% of the registrations, alongside seven registrations for Soprano Pipistrelle. A single Barbastelle call was recorded again, in this instance associated with Hedgerow H2, between Parcels A3 and A5.

Table 4.4. Activity survey results 18.05.23.

Species	Number of Registrations	First Recording After Sunset
Ppip	13	40 mins
Ppyg	7	1 hr 9 mins
Bb	1	1 hr 37 mins
Total	21	

Activity Survey 14.06.23

- 4.3.11. The results of the activity survey completed on 14 June 2023 are detailed below and in Table 4.5, in addition to being illustrated on Plan ECO3d.
- 4.3.12. A moderate level of activity was recorded over the course of this survey, albeit from a reduced assemblage of only two bat species, namely Common and Soprano Pipistrelle. Contrary to previous surveys, the quantity of calls attributed to each species is relatively evenly distributed at 55% and 45% respectively.
- 4.3.13. A relatively high number of bats were observed exhibiting foraging and commuting behaviour during this survey. These were associated with Hedgerows H1 and H2, that bound the western and southern boundaries of Parcel A3, and the southern extent of the western boundary of Parcel A5, which bounds Great Field Plantation.

Table 4.5. Activity survey results 14.06.23.

Species	Number of Registrations	First Recording After Sunset
Ppip	29	45 mins
Ppyg	24	43 mins
Total	53	

Activity Survey 10.07.23

- 4.3.14. The results of the activity survey undertaken on 10 July 2023 are summarised below and in Table 4.6. Illustration of this survey is provided on Plan ECO3e.
- 4.3.15. A similar moderate level of bat activity was recorded over the course of this survey compared to the surveys conducted in August 2022 and June 2023. Overall, the registrations were again comprised predominantly of Common Pipistrelles (76% of bat calls), in addition to seven Soprano Pipistrelles. Three Nathusius' Pipistrelle *Pipistrellus nathusii* calls were also recorded towards the end of the survey period, with these being the first instance of this species during an activity transect survey. Additionally, two Barbastelle registrations were recorded, the first of which was only 31 minutes after sunset.
- 4.3.16. Foraging behaviour observed during this survey was primarily associated with the north-eastern corner of Great Field Plantation and the western extent of Hedgerow H2, albeit limited to Common and Soprano Pipistrelle.

Table 4.6. Activity survey results 10.07.23.

Species	Number of Registrations	First Recording After Sunset
Ppip	37	31 mins
Ppyg	7	45 mins
Pnat	3	1 hr 47 mins
Bb	2	31 mins
Total	49	

Activity Survey 12.10.23

- 4.3.17. The results of the activity transect survey undertaken on 12 October 2023 are summarised below and in Table 4.7 and are illustrated on Plan ECO3f.
- 4.3.18. As with previous surveys conducted in September 2022 and May 2023, a relatively low level of bat activity was recorded during this survey, with only 12 calls registered. In contrast to previous surveys, most (58%) of said activity was attributed to Soprano Pipistrelle, with only two Common Pipistrelle calls recorded. These were also accompanied by a small number of unidentified *Pipistrellus* sp. registrations.

Table 4.7. Activity survey results 12.10.23.

Species	Number of Registrations	First Recording After Sunset
Ppip	2	1 hr 33 mins
Ppyg	7	1 hr 20 mins
Psp	3	1 hr 21 mins
Total	12	

Activity Survey 28.04.25

- 4.3.19. The results of the Spring 2025 activity transect survey, undertaken on 28 April 2025, are summarised below and in Table 4.8 and are illustrated on Plan ECO3g.
- 4.3.20. A moderate degree of bat activity was recorded over the course of this survey, the composition of which was similar to the prior surveys undertaken in 2023, with 61% of registrations relating to Common Pipistrelle and 34% of registrations relating to Soprano Pipistrelle. Barbastelle and *Myotis* sp. calls were also recorded over the course of the survey, albeit only in low abundance.
- 4.3.21. Both Common and Soprano pipistrelle were recorded relatively soon after sunset (24 minutes and 22 minutes respectively), with these species observed foraging adjacent to Hedgerows H2 and H3 and the eastern fringes of Great Field Plantation.

Table 4.8. Activity survey results 28.04.25.

Species	Number of Registrations	First Recording After Sunset
Ppip	38	24 mins
Ppyg	21	22 mins
Myo	1	1 hr 31 mins
Bb	2	1 hr 19 mins

Species	Number of Registrations	First Recording After Sunset
Total	62	

Remote Surveys

- 4.3.22. A single SM4BAT detector was deployed in the north-eastern corner of Great Field Plantation on nine occasions across 2022 and 2023 to monitor activity across at least five consecutive nights. The findings of this work are detailed below in Tables 4.9 to 4.17 and are illustrated on Plan ECO4a.
- 4.3.23. A further remote survey comprising the deployment of four SM4BAT detectors for five consecutive nights has been completed in April 2025. These detectors were deployed in the north-eastern corner of Great Field Plantation (Position 1), the south-eastern corner of Great Field Plantation (Position 2), the southern extent of Hedgerow H3 close to Tree BP2 (Position 3) and the northern extent of Hedgerow H1. The findings of this survey are detailed below in Table 4.18 and illustrated on Plan ECO4b.

Remote Survey 24.08.22 to 31.08.22

- 4.3.24. As shown in Table 4.9 below, only 38 registrations were recorded across the eight nights between 24 and 31 August 2022 that the detector was deployed for, with this equivalent to under five calls per night. The majority (71%) of these recordings were attributed to Common Pipistrelle, alongside a small number of Soprano Pipistrelle calls.
- 4.3.25. The earliest registration after sunset, that being 38 minutes, related to a Common Pipistrelle, while the last registration, which was attributed to an unidentified Pipistrellus sp., was recorded a relatively substantial two hours and 28 minutes before sunrise.

Table 4.9. 24 to 31 August 2022 Static Bat Detector Survey Results.

Species	Number of Registrations	First Recording After Sunset	Last Recording Before Sunrise
Ppip	27	38 mins	6 hr 38 mins
Ppyg	3	44 mins	5 hr 56 mins
Psp	8	1 hr 36 mins	2 hr 28 mins
Total	38		

Remote Survey 01.09.22 to 30.09.22

- 4.3.26. Table 4.10 below details the results of the static bat detector deployment between 1 and 30 September 2022. A combined 288 registrations were recorded across this period, equivalent to approximately only nine bat calls per night.
- 4.3.27. This low level of activity was dominated by Common Pipistrelle, with this species forming 77% of the bat calls recorded. Additional species identified across the survey period include Soprano Pipistrelle, Noctule *Nyctalus noctula*, *Myotis* sp. and Brown Long-eared Bat, with the latter three of these species only registering a single call each.
- 4.3.28. The earliest registration was attributed to a Soprano Pipistrelle 22 minutes after sunset. A relatively early call only 25 minutes after sunset was also recorded for Common Pipistrelle, with this species also holding the last registration recorded before sunrise, at 47 minutes.

Table 4.10. 1 to 30 2022 September Static Bat Detector Survey Results.

Species	Number of Registrations	First Recording After Sunset	Last Recording Before Sunrise
Ppip	223	25 mins	47 mins
Ppyg	39	22 mins	1 hr 11 mins
Psp	23	1 hr 31 mins	4 hr 54 mins
Nn	1	41 mins	9 hr 53 mins
Myo	1	6 hr 30 mins	5 hr 39 mins
Pa	1	6 hr 11 mins	5 hr 27 mins
Total	288		

Remote Survey 01.10.22 to 11.10.22

- 4.3.29. The static bat detector deployed between 1 and 11 October 2022 recorded a moderate level of bat activity at 588 registrations, equivalent to approximately 53 bat calls each night. Of these, 87% were attributed to Common Pipistrelle, with this species also holding both the earliest registration after sunset, at 22 minutes, as well as the last recording before sunrise, at 39 minutes. The only other species recorded during this survey

was Soprano Pipistrelle, which only comprised 13% of the recordings. This information is detailed further in Table 4.10 below.

Table 4.11. 1 to 11 October 2022 Static Bat Detector Survey Results.

Species	Number of Registrations	First Recording After Sunset	Last Recording Before Sunrise
Ppip	510	22 mins	39 mins
Ppyg	73	34 mins	1 hr 4 mins
Total	583		

Remote Survey 21.04.23 to 30.04.23

- 4.3.30. As detailed in Table 4.12 below, only 149 bat registrations were recorded over the ten nights between 21 and 30 April 2023, equivalent to approximately 15 bat calls each evening.
- 4.3.31. Contrary to the previous deployments, the majority (81%) of the bat calls recorded over this period were attributed to Soprano Pipistrelle. This species was accompanied by a small number of Common Pipistrelle and *Myotis* sp. registrations alongside the first recordings during a remote survey for Nathusius' Pipistrelle, Serotine *Eptesicus serotinus* and Barbastelle.
- 4.3.32. The earliest registration after sunset, at 19 minutes, relates to a Soprano Pipistrelle, with relatively early calls 33, 37 and 39 minutes after sunset also associated with Common Pipistrelle, Barbastelle and Nathusius' Pipistrelle respectively. The last registration was attributed to a *Myotis* sp. recorded two hours and five minutes before sunrise.

Table 4.12. 21 to 30 April 2023 Static Bat Detector Survey Results.

Species	Number of Registrations	First Recording After Sunset	Last Recording Before Sunrise
Ppip	13	33 mins	4 hr 54 mins
Ppyg	120	19 mins	4 hr 3 mins
Pnat	3	39 mins	5 hr 13 mins
Es	1	2 hr	7 hr 17 mins

Species	Number of Registrations	First Recording After Sunset	Last Recording Before Sunrise
Myo	9	59 mins	2 hr 5 mins
Bb	3	37 mins	8 hr 4 mins
Total	149		

Remote Survey 01.05.23 to 18.05.23

- 4.3.33. As displayed below in Table 4.13, this survey succeeded in recording 725 registrations, with these associated with a relatively diverse species assemblage. Given the detector was deployed between 1 and 18 May 2023, this moderate level of bat activity is equivalent to approximately 40 registrations each night.
- 4.3.34. Relatively high numbers of both Common and Soprano Pipistrelles were heard over the course of this survey, with these species combined forming 91% of the total registrations. These were accompanied by a single Nathusius' Pipistrelle and small numbers of Noctule, Serotine, *Myotis* sp. and Barbastelle. This survey also recorded the first calls attributed to Leisler's Bat *Nyctalus leisleri*, albeit only in low quantity.
- 4.3.35. The earliest registration after sunset was that of a Common Pipistrelle, recorded 15 minutes after sunset. Relatively early registrations regarding Soprano Pipistrelle, Leisler's Bat, Barbastelle and *Myotis* sp. were also registered 21, 30, 32 and 36 minutes after sunrise respectively. The last registration was recorded 39 minutes before sunrise and was again attributed to a Common Pipistrelle.

Table 4.13. 1 to 18 May 2023 Static Bat Detector Survey Results.

Species	Number of Registrations	First Recording After Sunset	Last Recording Before Sunrise
Ppip	463	15 mins	39 mins
Ppyg	197	21 mins	41 mins
Pnat	1	1 hr 2 mins	7 hr 29 mins
Psp	1	2 hr 2 mins	6 hr 20 mins

Species	Number of Registrations	First Recording After Sunset	Last Recording Before Sunrise
Nn	2	47 mins	3 hr 31 mins
NL	5	30 mins	4 hr 21 mins
Es	9	42 mins	1 hr 8 mins
Myo	17	36 mins	3 hr 29 mins
Bb	30	32 mins	2 hr 46 mins
Total	725		

Remote Survey 14.06.23 to 30.06.23

- 4.3.36. As detailed in Table 4.14 below, 1846 registrations were recorded across the 17 nights between 14 and 30 June 2023 inclusive, equivalent to approximately 109 registrations per night. This relatively high level of activity was attributed to nine species.

Table 4.14. 14 to 30 June 2023 Static Bat Detector Survey Results.

Species	Number of Registrations	First Recording After Sunset	Last Recording Before Sunrise
Ppip	1515	26 mins	36 mins
Ppyg	270	29 mins	26 mins
Pnat	19	25 mins	1 hr 7 mins
Nn	3	1 hr 28 mins	2 hr 48 mins
NL	1	3 hr 48 mins	3 hr 30 mins
Es	23	55 mins	1 hr 13 mins

Species	Number of Registrations	First Recording After Sunset	Last Recording Before Sunrise
Myo	2	1 hr 6 mins	4 hr 21 mins
Pa	1	4 hr 14 mins	3 hr 5 mins
Bb	12	1 hr 4 mins	1 hr 32 mins
Total	1846		

4.3.37. Overall, 82% of the registrations identified were attributed to Common Pipistrelle, with most remaining calls linked to Soprano Pipistrelle (15%). Additional species recorded in relatively low numbers include Nathusius' Pipistrelle, Noctule, Leisler's Bat, Serotine, *Myotis* sp., Brown Long-eared Bat and Barbastelle.

4.3.38. The earliest registration was recorded 25 minutes after sunset and is attributed to a Nathusius' Pipistrelle. Relatively similar timings (26 and 29 minutes after sunset respectively) were also recorded for Common and Soprano Pipistrelle. The last registration was recorded 26 minutes before sunrise and is attributed to Soprano Pipistrelle.

Remote Survey 25.07.23 to 3.08.23

4.3.39. As detailed below in Table 4.15, 954 registrations were recorded on the ten nights between 25 July and 3 August 2023, equivalent to approximately 95 records per night, a relatively high level of bat activity.

4.3.40. Of these, 94% were attributed to Common Pipistrelle, with this species also holding both the earliest registration after sunrise, at 34 minutes, and the last recording before sunset, at 38 minutes.

4.3.41. Additional species recorded include Soprano Pipistrelle, Nathusius' Pipistrelle, Leisler's Bat, Serotine, Brown Long-eared Bat and Barbastelle, albeit all in low frequency.

Table 4.15. 25 July to 3 August 2023 Static Bat Detector Survey Results.

Species	Number of Registrations	First Recording After Sunset	Last Recording Before Sunrise
Ppip	900	34 mins	38 mins

Species	Number of Registrations	First Recording After Sunset	Last Recording Before Sunrise
Ppyg	26	37 mins	1 hr 16 mins
Pnat	1	59 mins	7 hr 27 mins
Psp	2	2 hr 18 mins	5 hr 39 mins
NL	2	1 hr 19 mins	5 hr 1 mins
Es	17	1 hr 1 mins	2 hr 50 mins
Pa	2	2 hr 17 mins	1 hr 48 mins
Bb	4	1 hr 19 mins	5 hr 4 mins
Total	954		

Remote Survey 21.09.23 to 30.09.23

- 4.3.42. The static bat detector deployed over the ten nights between 21 and 30 September 2023 recorded 2508 registrations. This is equivalent to approximately 250 bat calls each night, by far the highest level of activity across the survey period. The results of this survey are detailed below in Table 4.16.

Table 4.16. 21 to 30 September 2023 Static Bat Detector Survey Results.

Species	Number of Registrations	First Recording After Sunset	Last Recording Before Sunrise
Ppip	2147	30 mins	50 mins
Ppyg	306	24 mins	31 mins
Pnat	3	1 hr 16 mins	7 hr 55 mins
Psp	13	54 mins	3 hr 18 mins

Species	Number of Registrations	First Recording After Sunset	Last Recording Before Sunrise
Nn	5	27 mins	2 hr 2 mins
Nl	6	1 hr 17 mins	5 hr 41 mins
Es	4	2 hr 25 mins	7 hr
Myo	10	2 hr 03 mins	1 hr 14 mins
Pa	1	6 hr 43 mins	5 hr 18 mins
Bb	13	34 mins	2 hr 15 mins
Total	2508		

- 4.3.43. Nine bat species were recorded during this survey, tying it as the most diverse alongside the survey conducted in June 2023. In line with the prior surveys, the recordings were dominated by Common Pipistrelle. This species comprised 86% of the registrations, with the second most numerous species, Soprano Pipistrelle, forming 12% of calls.
- 4.3.44. Further species observed, albeit in low quantities forming only 2% of the total bat calls combined, include Nathusius' Pipistrelle, Noctule, Leisler's Bat, Serotine, *Myotis* sp., Brown Long-eared Bat and Barbastelle.
- 4.3.45. The earliest registration was recorded 24 minutes after sunset and is attributed to Soprano Pipistrelle. Relatively early registrations were also recorded for Noctule, Common Pipistrelle and Barbastelle, with these species recorded 27, 30 and 34 minutes after sunset respectively. The last registration was recorded 31 minutes before sunrise and is also attributed to Soprano Pipistrelle.

Remote Survey 01.10.23 to 12.10.23

- 4.3.46. As detailed below in Table 4.17, a relatively low level of activity was recorded across the survey period between 1 and 12 October 2023, with approximately only 24 registrations per night.
- 4.3.47. This survey did maintain a relatively diverse array of bat species; however, the majority of the calls were again attributed to Common Pipistrelle and Soprano Pipistrelle, with these species forming 76% and 18% of the total registrations respectively. Additional bat species heard in flow frequencies over the course

of this survey include Nathusius' Pipistrelle, Leisler's Bat, Serotine, *Myotis* sp. and Barbastelle.

- 4.3.48. The joint earliest registrations were recorded 19 minutes after sunset and are attributed to Common and Soprano Pipistrelles. The last registration, meanwhile, which was also attributed to Soprano Pipistrelle, was recorded one hour and 30 minutes before sunrise.

Table 4.17. 1 to 12 October 2023 Static Bat Detector Survey Results.

Species	Number of Registrations	First Recording After Sunset	Last Recording Before Sunrise
Ppip	217	29 mins	2 hr 53 mins
Ppyg	50	29 mins	1 hr 30 mins
Pnat	1	10 hr 10 mins	2 hr 11 mins
Psp	2	2 hr 18 mins	6 hr 46 mins
NL	3	58 mins	3 hr 29 mins
Es	1	1 hr 38 mins	10 hr 47 mins
Myo	5	3 hr 57 mins	2 hr 8 mins
Bb	6	1 hr 1 mins	2 hr 50 mins
Total	285		

Remote Survey 11.04.25 to 15.04.25

- 4.3.49. The static bat detectors deployed over the five nights between 11 and 15 April 2025 recorded 298 registrations, equivalent to an average of 60 bat calls each night. The results of this survey are detailed below in Table 4.18.
- 4.3.50. Six bat species were recorded over the course of this survey. In line with the previous surveys conducted in 2023, the most abundant species, forming 41% of the registrations, was Common Pipistrelle. The second most numerous species, forming 26% of registrations, however, was Barbastelle. The majority (90%) of the registrations for this species were associated with Great Field Plantation. A similar amount of Soprano Pipistrelle registrations was recorded

(22% of registrations), alongside a small number of Noctule, Serotine and *Myotis* sp., calls.

- 4.3.51. The earliest registrations relate to Position 3 where Common Pipistrelle, Soprano Pipistrelle and Barbastelle were recorded approximately 17, 31 and 32 minutes post-sunset respectively. The last registrations prior to sunrise were recorded at Position 2, where Common and Soprano Pipistrelles were recorded 25 and 26 minutes post-sunset respectively.

Table 4.18. 11 to 15 April 2025 Static Bat Detector Survey Results.

Position	Species	Number of Registrations	First Recording After Sunset	Last Recording Before Sunrise
1	Ppip	10	4 hr 23 min	6 hr 17 min
	Ppyg	2	4 hr 17 min	1 hr 18 min
	Es	1	6 hr 42 min	3 hr 33 min
	Myo	1	6 hr 59 min	3 hr 12 min
	Bb	29	4 hr 29 min	1 hr 42 min
	Total	43		
2	Ppip	36	4 hr 29 min	26 min
	Ppyg	35	4 hr 33 min	25 min
	Myo	22	5 hr	1 hr 3 min
	Bb	40	4 hr 36 min	1 hr 32 min
	Total	133		
3	Ppip	74	17 mins	6 hr 11 mins

Position	Species	Number of Registrations	First Recording After Sunset	Last Recording Before Sunrise
	Ppyg	26	31 mins	7 hr 39 mins
	Es	2	3 hr 11 mins	7 hr 4 mins
	Myo	4	1 hr 9 mins	6 hr 35 mins
	Bb	4	32 mins	7 hr 9 mins
	Total	110		
4	Ppip	5	4 hr 22 mins	51 mins
	Ppyg	2	5 hr 26 mins	4 hr 47 mins
	Nn	1	8 hr 22 mins	1 hr 53 mins
	Bb	4	5 hr	4 hr 22 mins
	Total	12		77
Grand Total		298	125	65

Background Records

- 4.3.52. No records relating to this group were returned in the data search received from EFC within the last 10 years; however, five bat species were returned within this period by SBIS. This includes Barbastelle, *Myotis* sp., Noctule, Common Pipistrelle and Soprano Pipistrelle. These species are detailed individually below.
- 4.3.53. A single record was returned for Barbastelle. This record, which dates from 2014, relates to a location approximately 0.3km south of the development site.
- 4.3.54. A single record for *Myotis* sp. was also returned, with this relating to a location approximately 0.3km west of the site, adjacent to Great Field Plantation, in 2014.

- 4.3.55. Two records were returned for Noctule, the closest and most recent of which dates from 2014 and relates to a location approximately 0.3km west of the site, adjacent to Great Field Plantation.
- 4.3.56. Six records were returned for Common Pipistrelle. The most recent of these, which dates from 2017, relates to a location approximately 0.9km south-west of the site, while the closest record, which dates from 2014, relates to a location 0.1km west of the site adjacent to Great Field Plantation.
- 4.3.57. Five records were returned for Soprano Pipistrelle. These records all date from 2014, with the closest associated with Great Field Plantation approximately 0.1km west of the site.
- 4.3.58. No granted Natural England European Protected Species (EPS) licence applications for bats are present within a 2km radius of the site.

4.4. **Otters**

- 4.4.1. Waterbodies within and immediately adjacent to site were assessed for their suitability to support Otters in combination with other protected species surveys conducted across 2023, as well as in May 2025.
- 4.4.2. The ditches that bound / intersect the site are not considered suitable to support this species, with these features found to contain only a small amount of water in 2023 (30mm to 50mm) and were dry in 2025. Additionally, no field signs indicating the presence of Otters were recorded either in 2023 or 2025. Given this, no further consideration for this species is deemed necessary.

Background Records

- 4.4.3. No records were returned relating to this species within the last ten years by either EFC or SBIS.

4.5. **Water Voles**

- 4.5.1. Waterbodies within and immediately adjacent to the site were checked for their suitability to support Water Voles in concert with other protected species surveys conducted across 2023, in addition to May 2025.
- 4.5.2. Due to the relatively shallow / dry nature of the on-site ditches combined with the absence of any field signs indicating the presence of Water Voles and the lack of suitable emergent and marginal vegetation, the site is not considered to offer suitability for this species and no further mitigation is considered necessary.

Background Records

- 4.5.3. EFC and SBIS did not return any records for Water Voles within the last ten years.

4.6. **Dormice**

- 4.6.1. The site boundary provides suitable opportunities for Dormice in the form of species-rich native hedgerows and the adjacent Great Field Plantation.
- 4.6.2. As such, areas of suitable habitat were subject to monthly surveys between May and September 2023 inclusive. The position of the equipment deployed to conduct these surveys is displayed on Plan ECO5a. This survey effort did not find any evidence that Dormice are utilising the site and, therefore, this species is not considered to be present.
- 4.6.3. A series of updated Dormice surveys, the equipment for which is displayed on Plan ECO5b, are currently underway on-site. Thus far, only a single survey for April has been completed, however, as per the prior surveys conducted in 2023, no evidence suggesting the presence of Dormice has been observed.

Background Records

- 4.6.4. No records were returned by EFC for Dormice within the last 10 years. SBIS, however, did return a single record for this species, with this relating to a location approximately 0.8km beyond the south-eastern site boundary in 2015.

4.7. **Other Mammals**

- 4.7.1. The site contains suitable other neutral grassland and species-rich native hedgerow habitat to offer foraging, dispersal and, in the latter instance, hibernation opportunities for Hedgehogs *Erinaceus europaeus*, a species listed under Section 41 of the NERC Act 2006, with suitability heightened by the adjacent Great Field Plantation. Although no sightings of this species on-site have occurred, given the existence and extent of suitable on-site habitat the potential presence of this species cannot be ruled out.
- 4.7.2. No sightings for Harvest Mouse *Micromys minutus*, a species listed under Section 41 of the NERC Act 2006, have occurred on-site, nor have any specific surveys for this species been undertaken. However, this species has been previously found within the wider Great Wilsey Park development, with suitable other neutral grassland and species-rich native hedgerow habitats capable of supporting this species present on-site. Therefore, the potential utilisation of the site to some degree by this species cannot be ruled out.
- 4.7.3. Two Brown Hares *Lepus europaeus*, another species listed under Section 41 of the NERC Act 2006, were observed on the former arable field adjacent to the western boundary of Parcel A3 during a breeding bird survey on 19 April 2023. Although not observed on-site during past or most recent surveys, given the close proximity of this sighting, combined with the presence of arable farmland suitable for supporting this species on-site, it cannot be ruled out that this species would utilise the site to some small degree.
- 4.7.4. Wood Mouse *Apodemus sylvaticus* and Common Shrew *Sorex araneus* were confirmed to be utilising the Dormouse and reptile survey equipment, with evidence of these species including nests, footprints and individuals. It is considered that several other small common mammal species could make

use of the vegetation on-site, but none of these are likely to be notable or species of conservation concern given the site location and local records.

Background Records

- 4.7.5. EFC returned a single record relating to Hedgehog. This record, which dates from 2014, was located approximately 2.1km south-west of the site.
- 4.7.6. Additionally, SBIS returned a further 36 records for this species. The closest of these was located approximately 0.4km north-west of the site in 2015, while the most recent of these relates to a location approximately 0.5km south of the site in 2022.
- 4.7.7. Two records for Chinese Muntjac *Muntiacus reevesi*, a species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), were returned by EFC. The most recent record relates to a location approximately 2.1km south of the site in 2016, while the closest relates to a location approximately 2km south of the site in 2014.

4.8. Birds

- 4.8.1. The species-rich native hedgerows and individual trees bounding the site offer suitability for foraging and nesting birds, heightened by the presence of the adjacent woodland to the west of the site. The arable farmland and other neutral grassland habitats are also considered to offer suitability for ground nesting birds.
- 4.8.2. Bird species observed on or flying over site as part of the habitat survey include Red Kite *Milvus milvus*, a species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), in addition to Long-tailed Tit *Aegithalos caudatus*, Goldfinch *Carduelis carduelis*, Carrion Crow *Corvus corone*, Pheasant *Phasianus colchicus*, Magpie *Pica pica* and Blackbird *Turdus merula*.
- 4.8.3. During the bat activity transect survey conducted on 12 October 2023, a Barn Owl *Tyto alba*, another species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), was observed flying from Great Field Plantation, over Parcel A5, off-site to the east. A Tawny Owl *Strix aluco*, a species listed on The Birds of Conservation Concern (BoCC) 5 Amber List, was also heard calling from within Great Field Plantation.

Wintering Bird Surveys

- 4.8.4. Wintering bird surveys have been conducted in December 2022, January and February 2023 and January, mid-February and late-February 2025. The prevalent weather conditions of these surveys are shown below in Table 4.19.

Table 4.19. Wintering bird survey conditions.

Date	Cloud Cover (%)	Precipitation	Temperature (°C)	Wind
22.12.22	100	Dry	6 to 7	Calm
23.01.23	12.5	Dry	-3 to 2	Calm
15.02.23	0	Dry	2 to 8	Calm
29.01.25	0	Dry	5 to 7	Light breeze
10.02.25	100	Dry	4	Moderate breeze
26.02.25	87.5	Dry	3	Light air

- 4.8.5. Twenty-nine bird species were observed on, flying over, or immediately adjacent to the site during the wintering bird surveys conducted in 2022 and 2023. Three of these species, Red Kite, Redwing *Turdus iliacus* and Fieldfare *Turdus pilaris*, are listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and a further six species are listed under Section 41 of the NERC Act 2006. This includes Skylark *Alauda arvensis*, Yellowhammer *Emberiza citronella*, Reed Bunting *Emberiza schoeniclus*, Grey Partridge *Perdix perdix*, Dunnock *Prunella modularis* and Song Thrush *Turdus philomelos*.
- 4.8.6. An additional single species, Woodcock *Scolopax rusticola*, listed on the BoCC Red List and five species, namely Sparrowhawk *Accipiter nisus*, Mallard *Anas platyrhynchos*, Meadow Pipit *Anthus pratensis*, Kestrel *Falco tinnunculus* and Wren *Troglodytes troglodytes*, listed on the BoCC Amber list, were also recorded on-site over the course of the wintering bird surveys conducted in 2022 and 2023.
- 4.8.7. The wintering bird surveys completed in 2025 recorded 33 species on, flying over, or immediately adjacent to site. Red Kite, Redwing and Fieldfare, three species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), were again observed over the course of these surveys. Seven species listed under Section 41 of the NERC Act 2006 were also recorded including Skylark, Yellowhammer, Reed Bunting, Herring Gull *Larus argentatus*, Dunnock, Starling *Sturnus vulgaris* and Song Thrush.
- 4.8.8. Further notable species observed over the course of the 2025 wintering bird surveys include Mistle Thrush *Turdus viscivorus*, a species listed on the BoCC Red List, and Mallard, Black-headed Gull *Chroicocephalus ridibundus*, Stock

Dove *Columba oenas*, Wood Pigeon *Columba palumbus*, Kestrel and Wren, species listed on the BoCC Amber list.

Breeding Bird Surveys

- 4.8.9. Three breeding bird surveys have been carried out in April, May and June 2023 and April 2025. The prevalent weather conditions across these surveys are shown in Table 4.20 below.

Table 4.20. Breeding bird survey conditions.

Date	Cloud Cover (%)	Precipitation	Temperature (°C)	Wind
19.04.23	75	Dry	6	Light breeze
24.05.23	25	Dry	8	Gentle breeze
19.06.23	25	Dry	15	Light breeze
08.04.25	0	Dry	2 to 4	Gentle breeze

- 4.8.10. The results of these surveys are detailed below and in Appendix 4. They are also illustrated on Plans ECO7a to ECO7d.
- 4.8.11. Twenty-five bird species were observed on, flying over, or immediately adjacent to site during the breeding bird surveys undertaken in 2023. Five of these species are listed under Section 41 of the NERC Act 2006 including: Skylark, Linnet *Carduelis cannabina*, Yellowhammer, Reed Bunting and Dunnock. A further five species listed on the BoCC Amber List were recorded on-site including Meadow Pipit, Wood Pigeon, Stock Dove, Whitethroat *Sylvia communis* and Wren.
- 4.8.12. Singing male Skylark, Stock Dove, Wood Pigeon, Yellowhammer, Robin *Erithacus rubecula*, Pheasant, Chiffchaff *Phylloscopus collybita*, Dunnock, Blackcap *Sylvia atricapilla*, Whitethroat and Wren were all recorded within or adjacent to site in 2023 and are therefore categorised as possible breeders.
- 4.8.13. No bird species were confirmed to be breeding successfully on-site in 2023; however, two Carrion Crow nests were identified adjacent to site. One of these nests was observed beyond the eastern boundary in April and May 2023, while the other was identified within the northern extent of Great Field Plantation in April 2023.
- 4.8.14. During the breeding bird surveys undertaken in 2025, 19 species were observed on, flying over, or immediately adjacent to site. Of these, six species

are listed under Section 41 of the NERC Act 2006 including Skylark, Linnet, Yellowhammer, Reed Bunting, Herring Gull, and Dunnock. An additional four species listed on the BoCC Amber List were also observed including Stock Dove, Wood Pigeon, Whitethroat and Wren.

- 4.8.15. No bird species were confirmed to be breeding on-site in 2025. Singing Skylark, Linnet, Greater Spotted Woodpecker *Dendrocopos major*, Robin, Great Tit *Parus major*, Chiffchaff, Dunnock, Blackcap, Wren and Blackbird were all recorded within or adjacent to site in 2025, however, and are therefore categorised as possible breeders.

Background Records

- 4.8.16. EFC returned records for a single species, Red Kite, protected under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). The closest and most recent record for this species relates to a location approximately 2.2km south-east of the site in 2019.
- 4.8.17. A further 11 bird species protected under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) were returned by SBIS. This includes Kingfisher *Alcedo atthis*, Cetti's Warbler *Cettia cetti*, Hen Harrier *Circus cyaneus*, Quail *Coturnix coturnix*, Hobby *Falco subbuteo*, Red Kite, Black Redstart *Phoenicurus ochruros*, Green Sandpiper *Tringa ochropus*, Redwing, Fieldfare and Barn Owl. The closest record pertains to a Barn Owl observed on-site in 2020 the most recent record relates to a Red Kite recorded 1.1km southwest of the site in 2021.
- 4.8.18. EFC also returned records for six bird species listed on Section 41 of the NERC Act 2006 including Yellowhammer, Reed Bunting, Spotted Flycatcher *Muscicapa striata*, Grey Partridge, Bullfinch *Pyrrhula pyrrhula* and Starling. The closest records relate to a location approximately 2.2km south from the site and regard Reed Bunting, Grey Partridge and Starling in 2019 and Spotted Flycatcher in 2015. The most recent records relate to a Yellowhammer and Starling observed approximately 3km beyond the southern site boundary and a Reed Bunting, Grey Partridge and Starling located approximately 2.2km south-east of the site, all in 2019.
- 4.8.19. SBIS also returned 16 species listed under Section 41 of the NERC Act 2006, namely Lesser Redpoll *Acanthis cabaret*, Skylark, Cuckoo *Cuculus canorus*, Yellowhammer, Reed Bunting, Herring Gull, Linnet, Yellow Wagtail *Motacilla flava*, Spotted Flycatcher, House Sparrow *Passer domesticus*, Grey Partridge, Dunnock, Bullfinch, Starling, Song Thrush and Lapwing *Vanellus vanellus*. The closest records relate to Yellowhammer and Dunnock located within a grid square that includes the site in 2020. The most recent records relate to Skylark, Linnet, Yellow Wagtail and Dunnock observed approximately 1 km west of the site in 2021.
- 4.8.20. No species were returned by EFC within the last 10 years that are listed on the BoCC Red List (excluding species that have already been identified under higher designations). SBIS, however, returned a further nine species listed on the BoCC 5 Red List that have not already been detailed under the preceding designations. This includes White-fronted Goose *Anser albifrons*, Swift *Apus apus*, Goldeneye *Bucephala clangula*, Greenfinch *Carduelis chloris*, House

Martin *Delichon urbicum*, Nightingale *Luscinia megarhynchos*, Whinchat *Saxicola rubetra*, Woodcock and Mistle Thrush. The most recent and closest records pertain to a location approximately 1.5km east of the site in 2021 and are associated with Swift and House Martin.

- 4.8.21. A further six bird species were returned by EFC, that are not already detailed under the above designations, which are listed on the BoCC 5 Amber List. This includes Mallard, Wood Pigeon, Kestrel, Moorhen *Gallinula chloropus*, Common Tern and Wren. The most recent records refer to Wood Pigeon and Wren, date from 2021, and relate to a location approximately 2.2km south-east of the site. The closest records include Mallard, Wood Pigeon, Moorhen and Wren, date from 2019 and relate to a location approximately 2.2km south-east from the site.
- 4.8.22. SBIS returned a further 22 species listed on the BoCC 5 Amber List that have not already been included in the above designations. This includes Sparrowhawk, Sedge Warbler *Acrocephalus schoenobaenus*, Common Sandpiper *Actitis hypoleucos*, Mallard, Greylag Goose *Anser anser*, Meadow Pipit, Great White Egret *Ardea alba*, Black-headed Gull, Stock Dove, Rook *Corvus frugilegus*, Whitethroat *Curruca communis*, Kestrel, Snipe *Gallinago gallinago*, Moorhen, Common Gull *Larus canus*, Lesser Black-backed Gull *Larus fuscus*, Gadwall *Anas strepera*, Grey Wagtail *Motacilla cinerea*, Wheatear *Oenanthe Oenanthe*, Willow Warbler *Phylloscopus trochilus*, Tawny Owl and Wren. The closest record relates to a Kestrel recorded 0.4km south-west of the site in 2020. Eleven species share the most recent date, 2021, with the closest of these, Stock Dove and Whitethroat, relating to a location approximately 1km west of the site.

4.9. Reptiles

- 4.9.1. The other neutral grassland field margins with a long sward height were identified as offering suitable habitat for common reptile species, with adjacent species-rich native hedgerow and woodland habitats providing suitable opportunities for refuge and hibernation.
- 4.9.2. Seven presence / absence surveys for reptiles were subsequently completed in favourable conditions between 10 May and 13 June 2023. The results of the surveys, as shown on Plan ECO8a, indicate that small populations of Common Lizard *Zootoca vivipara* and Grass Snake *Natrix helvetica* are presently utilising this habitat. The results of the surveys undertaken are summarised in Table 4.21 below.

Table 4.21. 2023 reptile survey conditions and results. CL: Common Lizard; GS: Grass Snake; u: unsexed; m: male; f: female.

Date	Survey	Temperature (°C)	Cloud Cover (%)	Reptiles Recorded
04.05.23	1	14	60	3uCL, 1fCL, 2fGS

Date	Survey	Temperature (°C)	Cloud Cover (%)	Reptiles Recorded
10.05.23	2	16	60	1uCL, 2mGS, 1fGS
17.05.23	3	15	70	2uCL, 1fCL, 1mGS
25.05.23	4	15	100	3uCL, 1uGS, 2mGS
01.06.23	5	16	100	2uCL
08.06.23	6	15	10	1mGS
13.06.23	7	16	0	1uCL

- 4.9.3. Given the intervening time since the completion of the 2023 surveys, a series of seven updated presence / absence surveys for reptiles are currently underway. The first of these surveys was completed on 28 April 2025 in favourable conditions and has confirmed the continued presence of Common Lizard on-site. The results of this survey is summarised in Table 4.22 below and illustrated on Plan ECO8b.

Table 4.22. 2025 reptile survey conditions and results. CL: Common Lizard; u: unsexed.

Date	Survey	Temperature (°C)	Cloud Cover (%)	Reptiles Recorded
28.04.25	1	17	20	3uCL

Background Records

- 4.9.4. No records for this group were returned by EFC within the last 10 years. SBIS, however, returned records relating to three common reptile species, namely Slow Worm *Anguis fragilis*, Grass Snake and Common Lizard, within this time period, with these detailed individually below.
- 4.9.5. Six records were returned for Common Lizard. The closest of these records was located approximately 0.1km south of the site in 2014, while the most recent record was located approximately 1km west of the site in 2021.

- 4.9.6. Two records were returned for Grass Snake. The most recent of these records dates from 2017 and relates to a location approximately 1km south-west of the site. The closest record, meanwhile, is located approximately 0.3km south-east of the site and dates from 2014.
- 4.9.7. A single record was returned for Slow Worm. This record relates to a location approximately 0.9km south-west of the site in 2017.

4.10. Amphibians (Great Crested Newts)

- 4.10.1. No waterbodies considered to be suitable for Great Crested Newts are present on or adjacent to site. Suitable terrestrial habitat for Great Crested Newts does exist, however, in the form of the other neutral grassland field boundaries.
- 4.10.2. Upon review of aerial photography and maps, 15 ponds have been identified within 500m of the site boundary that are not separated by a significant dispersal barrier. Access has been granted to seven of these to date, with these subsequently subject to HSI and eDNA surveys.
- 4.10.3. There is also a known presence of Common Toad *Bufo bufo*, a species listed under Section 41 of the NERC Act 2006, within the wider Great Wilsey Park development. Although this species has not been observed on-site, given that the site contains ditch and other neutral grassland habitat suitable for supporting this species, its potential presence cannot be ruled out.

HSI Survey

- 4.10.4. HSI surveys were carried out on seven off-site ponds to determine their suitability to support Great Crested Newts, the results of which are detailed in Table 4.23 below. This assessment provides a range of scores between 0 and 1, where 1 represents optimal suitability and a score below 0.5 represents poor suitability.
- 4.10.5. Ponds P1, P2, P3 and P7 were assessed as having a good score and Ponds P4, P5 and P6 were evaluated as having average scores.

Table 4.23. 2025 HSI scores of all suitable waterbodies for Great Crested Newts within 500m of the site not separated by dispersal barriers, where access could be obtained.

Criteria	P1	P2	P3	P4	P5	P6	P7
SI1 - Location	1	1	1	1	1	1	1
SI2 - Pond area	0.5	0.6	0.985	0.2	0.3	0.2	0.6
SI3 - Pond drying	0.9	0.9	0.9	0.9	1	0.9	0.9
SI4 - Water quality	0.33	0.33	0.33	0.33	0.33	0.33	0.33
SI4 - Shade	1	1	1	1	1	1	1
SI6 - Fowl	1	1	1	1	1	1	1
SI7 - Fish	1	1	1	1	1	1	1
SI8 - Ponds	1	1	1	1	1	1	1

Criteria	P1	P2	P3	P4	P5	P6	P7
Sl9 - Terrestrial habitat	0.33	0.67	0.33	0.33	0.33	0.33	0.33
Sl10 - Macrophytes	0.9	0.4	1	0.7	0.8	0.9	0.9
HSI	0.73	0.74	0.79	0.65	0.69	0.67	0.75
Suitability	Good	Good	Good	Average	Average	Average	Good

eDNA Survey

- 4.10.6. Ponds P1, P2, P3, P4, P6 and P7 were then subject to eDNA testing on 24 April 2025 to determine the presence / absence of Great Crested Newts within these waterbodies. After analysis, absence was recorded in all of these ponds (see Appendix 7 for laboratory results).
- 4.10.7. Pond P5 was not subject to eDNA testing as it was found to be dry at the time of the survey.

Background Records

- 4.10.8. No records for any amphibian species were returned by EFC within the last 10 years, but records pertaining to Common Toad, Smooth Newt *Lissotriton vulgaris*, Common Frog *Rana temporaria* and Great Crested Newt were returned within this timeframe by SBIS.
- 4.10.9. Five records were returned for Common Toad. The closest and most recent of these relates to a location approximately 0.1km east of the site in 2015.
- 4.10.10. Fifteen records for Smooth Newt were returned by the data search. The closest of these relates to a location approximately 0.1km west of the site and is associated with Great Field Plantation, but the most recent record relates to a location approximately 0.7km south of the site in 2016.
- 4.10.11. Nine records were returned for Common Frog. The closest of these records relates to a location approximately 0.1km east of the site in 2015, while the most recent record relates to a location approximately 1.1km west of the site in 2021.
- 4.10.12. A single record was returned for Great Crested Newt. This record regards a Natural England Great Crested Newt Class Survey License Returns, which indicates the presence of this species approximately 1km beyond the northern site boundary. This record is separated from site by the A143, with this road acting as a significant dispersal barrier.
- 4.10.13. No granted Natural England EPS licence applications for Great Crested Newts are present within a 2km radius of the site.

4.11. Invertebrates

- 4.11.1. Given the habitats recorded on-site it is expected that there would be an assemblage of common invertebrates present, although there is no reason to suspect the likely presence of any scarce or notable invertebrate species.

Background Records

- 4.11.2. The data search provided by EFC returned a single species, White-letter Hairstreak Butterfly *Satyrrium w-album*, listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). The sole record for this species dates to 2022 and relates to a location approximately 1.9km south-east of the site.
- 4.11.3. A further two invertebrate species listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) were returned by SBIS. This includes a Stag Beetle *Lucanus cervus* located approximately 1km south-east of the site and a Purple Emperor Butterfly *Apatura iris* located approximately 0.6km south of the site. The single records for both these species date from 2021.
- 4.11.4. EFC returned an additional two invertebrate species that are listed on Section 41 of the NERC Act 2006 and the UKBAP, namely the Ghost Moth *Hepialus humuli* and Shaded Broad-bar Moth *Scotopteryx chenopodiata*. Both these species relate to the same location approximately 1.4km beyond the southern site boundary in 2014.
- 4.11.5. Three records for Small Heath Butterfly *Coenonympha pamphilus*, another species listed under Section 41 of the NERC Act 2006, were also returned by SBIC. The closest and most recent record returned relates to a location approximately 0.5km south-west of the site in 2019.

5. Evaluation and Discussion

5.1. The Principles of Ecological Evaluation

- 5.1.1. The guidelines for ecological evaluation produced by CIEEM propose an approach that involves professional judgement, but makes use of available guidance and information, such as the distribution and status of the species or features within the locality of the project.
- 5.1.2. The methods and standards for site evaluation within the British Isles have remained those defined by Ratcliffe¹⁹. These are broadly used across the United Kingdom to rank sites so priorities for nature conservation can be attained. For example, current Sites of Special Scientific Interest (SSSI) designation maintains a system of data analysis that is roughly tested against Ratcliffe's criteria.
- 5.1.3. In general terms, these criteria are size, diversity, naturalness, rarity and fragility, while additional secondary criteria of typicalness, potential value, intrinsic appeal, recorded history and the position within the ecological / geographical units are also incorporated into the ranking procedure.
- 5.1.4. Any assessment should not judge sites in isolation from others, since several habitats may combine to make it worthy of importance to nature conservation.
- 5.1.5. Further, relying on the national criteria would undoubtedly distort the local variation in assessment and therefore additional factors need to be taken into account, e.g. a woodland type with a comparatively poor species diversity, common in the south of England, may be of importance at its northern limits, say in the border country.
- 5.1.6. In addition, habitats of local importance are often highlighted within a local BAP, or similar. The Suffolk BAP has been considered as part of this assessment and is referenced where relevant.
- 5.1.7. Levels of importance can be determined within a defined geographical context from the immediate site or locality through to the international level.
- 5.1.8. The legislative and planning policy context are also important considerations and have been given due regard throughout this assessment.

5.2. Habitat Evaluation

Designated Sites

- 5.2.1. **Statutory Sites.** Statutory Sites. There are no statutory designated sites of nature conservation interest within or immediately adjacent to the site (see Plan ECO1).
- 5.2.2. The closest SSSI is Trundley and Wadgell's Woods, Great Thurlow, located approximately 2.8km beyond the northern site boundary. This 80-hectare site comprises a substantial quantity of ancient woodland which supports a range of Ancient Woodland Indicator (AWI) species such as Bluebell and Early-

purple Orchid *Orchis mascula*, alongside accompanying grassy rides and dense hedges.

- 5.2.3. The second closest SSSI, Over and Lawn Woods, is a 45-hectare ancient woodland located approximately 4.3km north-west of the site. This SSSI has been subject to traditional management and hosts a range of AWI and locally rare plant species, such as Wood Anemone *Anemone nemorosa* and Wood Sorrel *Oxalis acetosella*. A variety of grasses and herbs are also found within a series of rides and glades throughout the woodland, with further diversity offered by a stream and pond.
- 5.2.4. The closest Local Nature Reserve (LNR) is Haverhill Railway Walks. This LNR, which is located approximately 0.9km beyond the southern boundary, acts as a valuable wildlife corridor, with scrub and trees offering a means of foraging and dispersal for a range of faunal groups.
- 5.2.5. The development site falls within the SSSI Impact Risk Zones (IRZ) of Trundley and Wadgell's Woods SSSI and Over and Lawn Woods SSSI. That said, the proposals do not qualify as a development identified by Natural England as posing a risk to the integrity of these, or any other, SSSI's. Consequently, the Local Planning Authority (LPA) does not need to consult Natural England on the likely risks.
- 5.2.6. **Non-statutory Sites.** The closest non-statutory designated site to the development site is Haverhill Disused Railway Line County Wildlife Site (CWS) which partially overlays with Haverhill Railway Walks LNR. This site is designated due to its mosaic of dense species-rich scrub, hedgerow and lowland meadow habitat which support a range of breeding birds, including several priority species, in addition to common reptile species.
- 5.2.7. The closest Local Wildlife Site (LWS) is Greatley Wood, located approximately 2.5km south of the site. This is a relatively small parcel of woodland dominated by Ash and Oak and accompanied by a varied ground flora.
- 5.2.8. The development site lies within Buglife's B-Lines network, a series of 3km wide insect pathways which aim to facilitate the passage of pollinators throughout the country. Planning applications in or around B-Lines should contribute towards increasing resources for pollinators by, for example, delivering habitat restoration, wildflower meadow creation, wildlife gardens, orchard planting, brownfield habitat creation, bee friendly formal planting and / or living roofs.
- 5.2.9. It is considered that all non-statutory sites are sufficiently removed from the development to be unaffected by the proposals, given standard engineering practice in respect of pollution control and dust is implemented during the construction phase.

¹⁹ Ratcliffe, D.A. (1977). *A Nature Conservation Review: The Selection of Sites of Biological National Importance to Nature Conservation in Britain*. Two Volumes. Cambridge University Press, Cambridge.

Habitats

- 5.2.10. The habitats within the site consist of common and widespread species; however, they are of interest, largely due to the opportunities they offer wildlife rather than any intrinsic value.
- 5.2.11. The species-rich native hedgerows and mature trees associated with the field boundaries are of heightened interest in the context of the site. These will be largely retained as part of the scheme and bolstered through the establishment of new woodland planting along the eastern and northern boundaries of the site and the application of a suitable management plan.
- 5.2.12. Other neutral grassland habitat is also relatively valuable and, while some loss of this habitat is expected, the seeding of species-rich wildflower mixes around the site boundaries will offer new and increased opportunities for the faunal groups that rely on this habitat as well as increasing the floral diversity of the site.
- 5.2.13. New ornamental planting will also be provided within the built form of the development. This will contribute towards the provision of green infrastructure and connectivity throughout site and heighten nectar resource for invertebrates.

5.3. Faunal Evaluation

Badgers

- 5.3.1. For reasons of animal welfare, Badgers are considered in Confidential Appendix 2.

Bats

- 5.3.2. **Legislation.** All bats are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and are included on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 ("the Habitats Regulations"). These include provisions making it an offence to:
- Deliberately kill, injure or take (capture) bats;
 - Deliberately disturb bats in such a way as to be likely to impair their ability to survive, to breed or rear or nurture their young, to hibernate or migrate, or to affect significantly the local distribution or abundance of the species to which they belong;
 - Damage or destroy any breeding or resting place used by bats; and
 - Intentionally or recklessly obstruct access to any place used by bats for shelter or protection (even if bats are not in residence).
- 5.3.3. The words deliberately and intentionally include actions where a court can infer that the defendant knew that the action taken would almost inevitably result in an offence, even if that was not the primary purpose of the act.

- 5.3.4. The offence of damaging (making it worse for the bat) or destroying a breeding site or resting place is an absolute offence. Such actions do not have to be deliberate for an offence to be committed.
- 5.3.5. In accordance with the Habitats Regulations the licensing authority (Natural England) must apply the three derogation tests as part of the process of considering a licence application. These tests are that:
- The activity to be licensed must be for imperative reasons of overriding public interest or for public health and safety;
 - There must be no satisfactory alternative; and
 - The favourable conservation status of the species concerned must be maintained.
- 5.3.6. Licences can usually only be granted if the development is in receipt of full planning permission.
- 5.3.7. **Site Usage.** All trees on and adjacent to site were appraised for their suitability to support roosting bats in November 2023 and May 2025. Trees BP1 and BP2, both mature Oaks, are considered to contain PRFs in the form of broken branches and loose bark that may offer suitability for roosting bats. These trees are both categorised as PRF-I under the guidance.
- 5.3.8. The species-rich native hedgerows, individual trees and adjacent Great Field Plantation offer good foraging and dispersal opportunities for local bat species, heightened by the presence of other neutral grassland habitat around the field boundaries.
- 5.3.9. Targeted surveys carried out across site identified the presence of nine species of bat. By far the most abundant of these was Common Pipistrelle, with most of the remaining registrations attributed to Soprano Pipistrelle, both relatively common and widespread species. Although Barbastelle, a rarer bat species, was recorded during the survey work, of the combined 7936 registrations recorded across the activity transect and remote surveys, Barbastelle comprised of only 152 of these, equivalent to 1.9% of the bat calls registered. This low detection rate would suggest that the site is not of great importance for this species.
- 5.3.10. The results of the survey effort have been appraised against the criteria outlined by Wray et al. 2010²⁰ for assessing the importance of a site for commuting and foraging bats.
- 5.3.11. This method assigns a number of criteria for assessing the value of a site for commuting and foraging bats individual scores (see Tables 5.1 and 5.2 below). These are then tallied to give a total score for the site which corresponds to a determined geographic frame of reference for the importance of the site to this faunal group (see Table 5.3).

²⁰ Wray, S., Wells, D., Long, E. & Mitchel-Jones, T. (2010). Valuing Bats in Ecological Impact Assessment. *In Practice – Bulletin of the Institute of Ecology and Environmental Management*, **70**: 23-25.

Table 5.1. Criteria and scores for valuating commuting routes for bats as set out by Wray *et al.* 2010.

Valuing Commuting Routes			
Species	Number of Bats	Roosts / Potential Roosts Nearby	Type and Complexity of Linear Features
Common (2)	Individual bats (5)	None (1)	Absence of (other) linear features (1)
-	-	Small number (3)	Unvegetated fences and large field sizes (2)
Rarer (5)	Small number of bats (10)	Moderate number / not known (4)	Walls, gappy or flailed hedgerows, isolated well-grown hedgerows, and moderate field sizes (3)
-	-	Large number of roosts, or close to a SSSI for the species (5)	Well-grown and well-connected hedgerows, small field sizes (4)
Rarest (20)	Large number of bats (20)	Close to or within a SAC for the species (20)	Complex network of mature well-established hedgerows, small fields and rivers / streams (5)

Table 5.2. Criteria and scores for valuating foraging areas for bats as set out by Wray *et al.* 2010.

Valuing Foraging Areas			
Species	Number of Bats	Roosts / Potential Roosts Nearby	Foraging Habitat Characteristics
Common (2)	Individual bats (5)	None (1)	Industrial or other site without established vegetation (1)
-	-	Small number (3)	Suburban areas or intensive arable land (2)
Rarer (5)	Small number of bats (10)	Moderate number / not known (4)	Isolated woodland patches, less intensive arable and / or small towns and villages (3)
-	-	Large number of roosts, or close to a SSSI for the species (5)	Larger or connected woodland blocks, mixed agriculture, and small villages / hamlets (4)
Rarest (20)	Large number of bats (20)	Close to or within a SAC for the species (20)	Mosi of pasture, woodland and wetland areas (5)

Table 5.3. Scoring system for the evaluation of commuting and foraging bats set out by Wray *et al.* 2010.

Scoring System for Valuing Commuting and Foraging Bats	
Geographic Frame of Reference	Score
International	>50
National	41 to 50

Scoring System for Valuing Commuting and Foraging Bats	
Geographic Frame of Reference	Score
Regional	31 to 40
County	21 to 30
District, local or parish	11 to 20
Not important	1 to 10

- 5.3.12. Each species of bat observed on-site was appraised against these criteria, with the bat species determined to have the highest score, typically the rarest species observed, used to determine the value of the site. The site is valued at a score of 29 for both commuting and foraging bats, indicating it is of county value for this faunal group.
- 5.3.13. **Mitigation and Enhancements.** It is understood that Trees BP1 and BP2 are to be retained and protected, therefore no mitigation relating to roosting bats is currently required to facilitate the development proposals. Should this situation change, a Natural England EPS licence may be required to facilitate the destruction of the roosts.
- 5.3.14. Surveys for foraging and commuting bats are ongoing, with further monthly surveys to be conducted between May and October 2025, the results of which will be provided in an addendum report.
- 5.3.15. That said, it is understood that the habitats that have been shown to offer the greatest interest for bats in the surveys completed to date, such as species-rich native hedgerows and individual trees, will, for the most part, be protected and retained throughout the construction phase of the development, with new woodland and tree planting to be incorporated into the scheme to promote wildlife corridors around site and improve the foraging and commuting opportunities for bats. The inclusion of a bat hop will also facilitate the dispersal of this group over the proposed access road connecting Parcels A3 and A5, ensuring that the foraging and commuting bats currently utilising this area of the site are unhindered.
- 5.3.16. The provision of Sustainable Drainage Features (SuDS) and new areas of wildflower grassland seeding will heighten the invertebrate suitability of the site, therefore improving food resource for bats.
- 5.3.17. The adoption of lighting safeguards as part of a sensitive lighting scheme during the construction and operational phases of the development will ensure artificial lighting does not represent an indirect effect on bats and that dark corridors remain across and around the site.

- 5.3.18. The provision of bat boxes and / or bat tiles incorporated into newly constructed buildings or on retained trees will offer new roosting opportunities across site.

Dormice

- 5.3.19. **Legislation.** Dormice are also subject to the same legislative protection and licensing provisions as bats (see above).
- 5.3.20. **Site Usage.** The species-rich native hedgerows that form the site boundaries, in addition to Great Field Plantation, were subject to targeted surveys for Dormice between May and September 2023. No evidence suggesting that this species is presently utilising these habitats was identified across this survey effort.
- 5.3.21. While still underway, a series of updated Dormice surveys being carried out in 2025, the first of which was completed in April, would indicate the continued absence of this species on-site.
- 5.3.22. **Mitigation and Enhancements.** While Dormice surveys are ongoing, with the results of the 2025 surveys to be provided within an addendum report, the results of the surveys conducted in 2023 and April 2025 indicate that this species is not present on-site and, therefore, no specific mitigation measures are currently understood to be required for Dormice. The retention of the majority of the species-rich native hedgerows bounding site and accompanying new woodland planting along the eastern and northern site boundaries will ensure that suitability for the site to host this species is continued to be offered post-development.

Hedgehogs

- 5.3.23. **Legislation.** Hedgehog is a species of principal importance for the conservation of biodiversity under Section 41 (England) of the NERC Act 2006.
- 5.3.24. The NERC Act 2006 requires the Secretary of State to:
- ...take such steps as appear... to be reasonably practicable to further the conservation of the living organisms and types of habitat included in any published under this section, or...promote the taking by other of such steps.**
- 5.3.25. **Site Usage.** No evidence of Hedgehog was recorded during the survey work undertaken. The other neutral grassland and species-rich native hedgerow habitat does, however, offer suitability for foraging, dispersing and, in the latter instance, hibernating Hedgehogs.
- 5.3.26. **Mitigation and Enhancements.** Any clearance of log piles or other shelter features will be subject to inspection to ensure that Hedgehogs are absent. In the event that an individual is encountered, it will be carefully placed in an appropriate lidded box and immediately removed to an area of suitable habitat at the margins of the site away from working areas. Any vegetation clearance should be carried out in a systematic and controlled manner to allow Hedgehogs to disperse.

- 5.3.27. Any trenches or deep pits associated with the construction that are to be left open overnight should be provided with a means of escape in case a Hedgehog enters. This is particularly important if the trench fills with water. This should take the form of a roughened plank of wood placed in the trench as a ramp to the surface.
- 5.3.28. The retention of the majority of the species-rich native hedgerows combined with the provision of new other neutral (wildflower) grassland seeding and woodland planting around the site boundaries will ensure that the site continues to offer suitability to support this species. The inclusion of Hedgehog gateways in the fencing for the residential properties' gardens will also enable unhindered passage for this species across site (see Appendix 5).

Harvest Mouse

- 5.3.29. **Legislation.** Harvest mice, like Hedgehogs, are listed as species of principal importance for the conservation of biodiversity under Section 41 (England) of the NERC Act 2006.
- 5.3.30. **Site Usage.** No sightings of Harvest Mice have occurred on-site; however, this species has previously been found within the wider Great Wilsey Park development, with suitable other neutral grassland and species-rich native hedgerow habitats capable of supporting this species present on-site.
- 5.3.31. **Mitigation and Enhancements.** Mitigation for this species is to be tied with that proposed for common reptiles detailed below. The clearance of any areas of suitable vegetation should be carried out in a systematic and controlled manner and, on the occasion that a Harvest Mouse is encountered, it will be carefully placed in an appropriate lidded box and immediately removed to an area of suitable habitat away from working areas.
- 5.3.32. The provision of new other neutral (wildflower) grassland seeding subject to a relaxed management regime around the site boundaries combined with the retention of the species-rich native hedgerows will ensure that the site continues to offer suitability for this species post-development.

Brown Hare

- 5.3.33. **Legislation.** As with Hedgehog and Harvest Mouse detailed above, Brown Hare are listed as species of principal importance for the conservation of biodiversity under Section 41 (England) of the NERC Act 2006.
- 5.3.34. **Site Usage.** While this species has not been observed on-site, two Brown Hares were sighted on the former arable field adjacent to the western boundary of Parcel A3. Due to the proximity of this sighting, combined with the presence of arable farmland suitable for supporting this species on-site, it is likely that this species would utilise the site to some degree.
- 5.3.35. **Mitigation and Enhancements.** No specific mitigation is required for this species. While the net loss of arable farmland on-site is inevitable to facilitate the development proposals, numerous alternative arable fields are present within the vicinity of the site, particularly beyond the eastern boundary, which will continue to offer opportunities for this species. The inclusion of other

neutral (wildflower) grassland around the site margins will also ensure that some suitability for this species is retained on-site.

Birds

- 5.3.36. **Legislation.** Section 1 of the Wildlife and Countryside Act 1981 (as amended) is concerned with the protection of wild birds, whilst Schedule 1 lists species that are protected by special penalties. All species of birds receive general protection whilst nesting.
- 5.3.37. **Site Usage.** Section 1 of the Wildlife and Countryside Act 1981 (as amended) is concerned with the protection of wild birds, whilst Schedule 1 lists species that are protected by special penalties. All species of birds receive general protection whilst nesting.
- 5.3.38. The site has been confirmed to host four bird species designated under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), namely Red Kite, Redwing, Fieldfare and Barn Owl. Both Redwing and Fieldfare are winter migrants so would not be expected to utilise the site for breeding purposes. Red Kite and Barn Owl were only observed flying over / flying adjacent to site and there is no indication that these species are breeding within the on-site habitats.
- 5.3.39. Additional notable species listed on Section 41 of the NERC Act 2006 and / or the BoCC Red or Amber Lists recorded on and adjacent to site include Sparrowhawk, Skylark, Mallard, Meadow Pipit, Linnet, Black-headed Gull, Wood Pigeon, Stock Dove, Yellowhammer, Reed Bunting, Kestrel, Herring Gull, Grey Partridge, Dunnock, Woodcock, Tawny Owl, Starling, Whitethroat, Wren, Song Thrush and Mistle Thrush.
- 5.3.40. No bird species were confirmed to be nesting on-site, although Carrion Crow was confirmed to be successfully breeding adjacent to site, with nests observed in April and May 2023. Skylark, Linnet, Stock Dove, Wood Pigeon, Greater Spotted Woodpecker, Yellowhammer, Robin, Great Tit, Pheasant, Chiffchaff, Dunnock, Blackcap, Whitethroat, Wren and Blackbird are all considered to be possible breeders.
- 5.3.41. **Mitigation and Enhancements.** An additional two breeding bird surveys for May and June 2025 are ongoing, the results of which will be included within an addendum report.
- 5.3.42. The development proposals will largely safeguard the species-rich native hedgerows and individual trees identified as being of value to foraging and nesting birds in the surveys conducted to date. That said, arable farmland and other neutral grassland habitat that offers opportunities for ground nesting species, and particularly Skylarks, will be lost to facilitate the development proposals.
- 5.3.43. It is recommended that any clearance of suitable habitat takes place outside the nesting season (March to August inclusive) to avoid a potential offence under the legislation. Where this cannot be achieved, a check survey for nesting birds should be undertaken by a Suitably Qualified Ecologist (SQE), with any confirmed nests left in situ until the young have fledged. Owing to

the presence of ground nesting birds on-site, this mitigation would also apply to the areas of arable farmland and surrounding other neutral grassland field margins.

- 5.3.44. The inclusion of woodland and individual tree planting within the proposals will ensure that opportunities for foraging and dispersing birds are increased post-development, with these features also heightening the nesting potential provided by the site, once matured. This new planting will include species that bear fruit over autumn and winter to secure increased food resource for winter migrants such as Fieldfare and Redwing.
- 5.3.45. The arable land will not be retained as part of the development; however, numerous further arable fields are located within the local area, with the provision of other neutral (wildflower) grassland seeding around the site boundary enabling continued opportunities for ground nesting birds on-site. The new marginal and emergent planting associated with the attenuation features will also offer opportunities for species such as Reed Buntings.
- 5.3.46. Management of the newly created habitats should aim to maximise opportunities for farmland species recorded on-site, such as creating and maintaining short dense hedgerows to promote use by Yellowhammers and managing areas of grassland habitat to form a tussocky sward to offer shelter for ground nesting birds such as Skylarks.
- 5.3.47. As an additional enhancement, a variety of bird boxes will be provided on retained trees and / or incorporated into the newly constructed buildings.

Reptiles

- 5.3.48. **Legislation.** All six British reptile species receive a degree of legislative protection that varies depending on their conservation importance.
- 5.3.49. Rare, endangered or declining species receive full protection under the Wildlife & Countryside Act 1981 (as amended) as well as protection under the Conservation of Habitats and Species Regulations 2017. Species that are fully protected are Smooth Snake *Coronella austriaca* and Sand Lizard *Lacerta agilis*. It is illegal to:
 - Deliberately kill, injure or take (capture) these reptiles;
 - Deliberately disturb these reptiles in such a way as to be likely to impair their ability to survive, to breed or reproduce, to rear or nurture their young, to hibernate, or to affect significantly their local distribution or abundance;
 - Damage or destroy any breeding or resting place used by these reptiles;
 - Intentionally or recklessly obstruct access to any place used by these reptiles for shelter or protection (even if the reptiles are not present at the time); and
 - Sell, offer for sale, possess or transport for purposes of sale these reptiles (live or dead animal, part or derivative).

- 5.3.50. Owing to their abundance in Britain, Common Lizard, Slow Worm, Grass Snake and Adder *Vipera berus* are only 'partially protected' under the Wildlife and Countryside Act 1981 (as amended) and as such only receive protection from:
- Intentional killing and injuring; and
 - Being sold or other forms of trading.
- 5.3.51. The habitat of common reptiles is therefore not directly protected. However, because of their partial protection, disturbing or destroying their habitat while they are present may lead to an offence.
- 5.3.52. All reptiles are listed as Species of Principal Importance under Section 41 of the NERC Act 2006. As stated above, the NERC Act places responsibility upon public bodies to have regard for the conservation of biodiversity in England.
- 5.3.53. **Site Usage.** Ecology Solutions conducted initial presence / absence reptile surveys within suitable other neutral grassland field boundary habitat between May and June 2023. Given the extent of intervening time since the completion of these, a series of updated presence / absence surveys are being carried out, of which the first was completed in April 2025. These targeted surveys have recorded small populations of Common Lizard and Grass Snake around the eastern, southern and western boundaries of Parcel A3 and a small population of Grass Snakes around the eastern and western boundaries of Parcel A5.
- 5.3.54. **Mitigation and Enhancements.** While additional survey effort is ongoing (the results of which will be detailed within an addendum report), based off the surveys completed in 2023 and April 2025, the approach to mitigation is currently understood to follow a habitat manipulation exercise whereby any suitable habitat to be impacted by the development would be sensitively made unsuitable for reptiles prior to the commencement of works within these areas, thereby encouraging reptiles to move to retained adjacent areas of suitable habitat.
- 5.3.55. Given the proposals include the establishment of other neutral (wildflower) grassland which will be managed to enable the formation of a tussocky long sward, opportunities for this group on-site will continue to be provided. Additionally, the provision of reptile hibernacula within areas of newly established habitat at the fringes of the development would ensure refugia and hibernating opportunities for this group (see Appendix 6).

Amphibians

- 5.3.56. **Legislation.** Great Crested Newts are subject to the same legislative protection and licensing provisions as bats (see above).
- 5.3.57. Other species of amphibian including the Common Toad, Common Frog, Palmate Newt *Lissotriton helveticus* and Smooth Newt are all afforded protection against sale only under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Where significantly large populations of Common Toad are identified at a site, their presence could be deemed as a 'material

consideration' by planning authorities in accordance with National Planning Policy Framework (NPPF) and their listing on the UKBAP and measures to protect them are recommended.

- 5.3.58. **Site Usage.** No waterbodies considered to be suitable for Great Crested Newts are present on or adjacent to site. Off-site ponds within 500m of the site boundary that are not separated by a significant dispersal barrier have been subject to eDNA surveys, where access was granted, with these confirming the absence of this species within these features. Suitable terrestrial habitat for Great Crested Newts does exist, however, in the form of the other neutral grassland field boundaries.
- 5.3.59. Common Toad is known to be present within the wider Great Wilsey Park development. Although this species has not been observed on-site, given that the site contains suitable ditch and other neutral grassland habitat for this species, its potential presence cannot be ruled out.
- 5.3.60. **Mitigation and Enhancements.** No specific mitigation is considered necessary for Great Crested Newts. Mitigation for Common Toads will be tied with that proposed for common reptile species mentioned above whereby the clearance of any areas of suitable vegetation will be carried out in a systematic and controlled manner and, on the occasion that a Common Toad is encountered, it will be carefully placed in an appropriate lidded box and immediately removed to an area of suitable habitat away from working areas.
- 5.3.61. The current development proposals retain the majority of the ditches across site, with these to be bolstered through the inclusion of new attenuation features and other neutral (wildflower) grassland providing increased aquatic and terrestrial opportunities for Common Toads and other common amphibian species.

Invertebrates

- 5.3.62. **Legislation.** A relatively small number of British invertebrate species receive full protection nationally under Schedule 5 of the Wildlife and Countryside Act 1981. These species are rare within Britain and have very restricted distributions across the country.
- 5.3.63. Several other species are partially protected under this legislation, either having their habitat protected (Mire Pill Beetle *Curimopsis nigrita*), or being illegal to trade (Stag Beetle *Lucanus cervus* and several Butterfly species).
- 5.3.64. Numerous invertebrate species are also listed as species of principal importance for the conservation of biodiversity under Section 41 of the NERC Act 2006, subject to the same protection as Hedgehogs detailed above.
- 5.3.65. **Site usage.** It is expected that an assemblage of common invertebrate species utilise the on-site habitats, although there is no reason to suspect the likely presence of any scarce or notable invertebrate species.
- 5.3.66. **Mitigation and Enhancements.** The retention of existing species-rich native hedgerows combined with the provision of new woodland planting and other neutral (wildflower) grassland seeding will provide increased suitability for a

range of common invertebrate species. The new attenuation features will also provide additional opportunities for aquatic invertebrates, with flowering plants associated with areas of ornamental planting heightening nectar resource. It is also considered that there is scope within the proposals to include loggeries in order to offer a direct benefit to saproxylic species.

6. Planning Policy Context

- 6.1. The planning policy framework that relates to nature conservation at the site, is issued at two main administrative levels: nationally through the NPPF and locally through the St Edmundsbury Core Strategy, the St Edmundsbury Borough Council – Haverhill Vision 2031 document and the Forest Heath and St Edmundsbury Local Plan. The Emerging West Suffolk Local Plan will also guide development within West Suffolk into the future. The proposed development will be judged in relation to the policies contained within these documents that concern nature conservation.

6.2. National Policy

NPPF (December 2024)

- 6.2.1. Guidance on national policy for biodiversity and geological conservation is provided by the National Planning Policy Framework, published in March 2012, revised on 24 July 2018, 19 February 2019, 20 July 2021, 5 September 2023, 19 December 2023 and again on 12 December 2024. It is noted that the NPPF continues to refer to further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system provided by Circular 06/05 (DEFRA / ODPM, 2005) accompanying the now-defunct Planning Policy Statement 9 (PPS9).
- 6.2.2. The key element of the NPPF is that there should be "*a presumption in favour of sustainable development*" (paragraph 11). It is important to note that this presumption "*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*" (paragraph 195). 'Habitats site' has the same meaning as the term 'European site' as used in the Habitats Regulations 2017.
- 6.2.3. Hence, the direction of Government policy is clear. That is, the presumption in favour of sustainable development is to apply in circumstances where there is potential for an effect on a European site, if it has been shown that there will be no adverse effect on that designated site as a result of the development in prospect.
- 6.2.4. A number of policies in the NPPF are comparable to those in PPS9, including reference to minimisation of impacts to biodiversity and provision of net gains to biodiversity where possible (paragraph 187).
- 6.2.5. The NPPF also considers the strategic approach that Local Authorities should adopt with regard to the protection, maintenance and enhancement of green infrastructure, priority habitats and ecological networks, and the recovery of priority species.
- 6.2.6. Paragraphs 193 of the NPPF comprise a number of principles that Local Authorities should apply, including encouraging opportunities to incorporate biodiversity in and around developments; provision for refusal of planning applications if significant harm cannot be avoided, mitigated or compensated

for; applying the protection given to European sites to potential Special Protected Areas (SPA), possible Special Areas of Conservation (SAC), listed or proposed Ramsar sites and sites identified (or required) as compensatory measures for adverse effects on European sites; and the provision for the refusal for developments resulting in the loss or deterioration of 'irreplaceable' habitats – unless there are 'wholly exceptional reasons' (for instance, infrastructure projects where the public benefit would clearly outweigh the loss or deterioration of habitat) and a suitable compensation strategy exists.

- 6.2.7. National policy therefore implicitly recognises the importance of biodiversity and that with sensitive planning and design, development and conservation of the natural heritage can co-exist and benefits can, in certain circumstances, be obtained.

6.3. Local Policy

St Edmundsbury Core Strategy (adopted December 2010)

- 6.3.1. The Core Strategy, which was adopted in December 2010, is the foundational document within St Edmundsbury borough that provides the overall strategic vision to enable growth that subsequent documents are built on. Relevant policies from this document are detailed individually below.
- 6.3.2. **Policy CS3 Sustainable Development** states that the natural resources of the borough, including biodiversity and wildlife, will be protected and enhanced. It also states that designated sites, BAP habitats and species and green corridors and spaces will be safeguarded.
- 6.3.3. **Policy CS12 Haverhill Strategic Growth.** Although this policy does not specifically relate to an ecological matter, it sets out an area to the north-east of Haverhill, that includes the development site, that is targeted for development.

St Edmundsbury Borough Council – Haverhill Vision 2031 (Adopted September 2014)

- 6.3.4. Produced by St Edmundsbury Borough Council, this document provides additional specific framework and positive guidance for growth within Haverhill. Pertinent policies to nature conservation are detailed below.
- 6.3.5. **Policy HV1: Presumption in Favour of Sustainable Development** outlines that the council will work with applicants to, among other aims, improve environmental conditions within Haverhill.
- 6.3.6. **Policy HV4: Strategic Site – North-east Haverhill.** While not specifically related to ecology, this policy refers to an area to the north-east of Haverhill that includes the development site and highlights that it is allocated for development.
- 6.3.7. **Policy HV18: Green Infrastructure** states that the integrity and connectivity of green infrastructure in Haverhill will be protected and enhanced. It goes onto detail specific examples where green infrastructure will be improved

throughout the town and states that '*planning permission for development that would harm the green infrastructure network will only be granted if it can incorporate measures that avoid the harm arising or sufficiently mitigate its effects*'.

Forest Heath and St Edmundsbury Local Plan Joint Development Management Policies Document (adopted February 2015)

- 6.3.8. The Forest Heath and St Edmundsbury Local Plan Joint Development Management Policies Document, which was adopted in February 2015, contains additional policies that that inform the 'day to day determination of planning applications in West Suffolk'. It contains several policies relevant to nature conservation, with these detailed below.
- 6.3.9. **Policy DM1: Presumption in Favour of Sustainable Development** states that the council will work with applicants to secure developments that, among other aims, will improve the local environment.
- 6.3.10. **Policy DM2: Creating Places – Development Principles and Local Distinctiveness** details a variety of criteria that all development proposals are expected to meet. This includes ensuring that mitigation measures are in place so as to not adversely impact sites, habitats, species and features of ecological interest.
- 6.3.11. **Policy DM10: Impact of Development on Sites of Biodiversity and Geodiversity Importance.** This policy details the criteria and legislature against which the LPA will assess proposals should a development site adversely impact a nature conservation site, be it of international or national import.
- 6.3.12. **Policy DM11: Protected Species** outlines that development proposals that impact protected species will not be permitted unless adequate mitigation measures are adopted and alternatives are not available.
- 6.3.13. **Policy DM12: Mitigation, Enhancement, Management and Monitoring of Biodiversity** sets out that developers should take measures to design proposals that protect and enhance biodiversity, mitigating for any adverse impacts.

Emerging West Suffolk Local Plan

- 6.3.14. This emerging document sets out the future long-term policies development within West Suffolk will abide by. It is currently available as a draft, having been submitted to the Secretary of State for independent examination in May 2024. This document contains several new ecologically relevant policies as detailed below.
- 6.3.15. **Policy SP1 The Climate and Environment Emergency and Sustainable Development** outlines a range measures for proposals to incorporate in order to ensure resilience to climate change. This includes the conservation and enhancement of biodiversity through the application of a mitigation hierarchy.

- 6.3.16. **Policy SP3 Design** sets out that new developments must '*create and contribute to a high quality, safe and sustainable environment*' by addressing numerous principles. One such principle is that the natural environment, habitats, species and features of ecological interest must be protected and enhanced.
- 6.3.17. **Policy SP4 Green Infrastructure.** This policy expresses the need for existing green infrastructure to be retained, restored, protected, enhanced and accompanied by new green infrastructure. It goes on to state that the design of major residential developments should be green infrastructure led and comprise approximately 40% green infrastructure.
- 6.3.18. **Policy SP6 Biodiversity Net Gain.** This policy states that qualifying development proposals should achieve a minimum of a 10% net gain in biodiversity post-development, with a focus on ensuring that connectivity is improved. It is preferred if this is achieved through on-site means, with off-site delivery to focus on locations identified within the Local Nature Recovery Strategy (LNRS).
- 6.3.19. **Policy SP7 Special Protection Areas and Special Areas of Conservation** details that only developments which demonstrate that they do not impact these European designated sites will be permitted, going on to outline the occasions whereby a Habitat Regulations Assessment (HRA) would be required.
- 6.3.20. **Policy SP8 Recreational Effects of Development** outlines that residential developments that are '*likely to increase recreational pressure on any European or nationally designated site for nature conservation, will be required to demonstrate that adequate measures are put in place to avoid or mitigate potential adverse effects*'. It then details the standards for said mitigation, should this apply.
- 6.3.21. **Policy LP1 Sustainable Design and Construction** lists expectations regarding sustainable design and construction that development proposals should meet. This includes demonstrating how the proposals will incorporate sustainability features, such as nest boxes, hedgehog gateways and wildlife corridors and well as the need for residential developments above a certain size to complete a BREEAM assessment of excellent standard.
- 6.3.22. **Policy LP13 Trees.** This policy declares that trees, woodland and hedgerows must be retained except where their removal cannot be avoided and suitable mitigation and / or compensation is sought. Development that adversely impacts ancient woodland or veteran trees, however, will be refused unless under exceptional circumstances.
- 6.3.23. **Policy LP15 Protected Sites, Habitats and Features** reiterates that proposals that adversely impact internationally, nationally or locally designated sites or irreplaceable or priority habitats will be refused, except under specific restricted circumstances. It also suggests that proposals should seek to conserve and enhance any on-site important habitats or biodiversity features.
- 6.3.24. **Policy LP16 Protected Species** highlights that proposals that adversely impact protected or priority species will not be permitted except in

circumstances where alternatives are not available and mitigation measures, in the form of disturbance reduction, the maintenance of populations and / or their habitat and the provision of enhancements, are provided. It also states that applications must be supported by appropriate protected species surveys and an ecological impact assessment.

- 6.3.25. **Policy AP14 North-east Haverhill (Strategic)**, which specifically focuses on an area to the north-east of Haverhill that includes the development site, provides further guidance on the provisions that should be delivered by the development. This includes providing green and blue infrastructure comprising strategic landscaping around the development edge, green and blue corridors and the enhancement of Great Field Plantation.

6.4. Discussion

- 6.4.1. The development of the site is not likely to have a significant adverse effect on designated sites in the locality. While ongoing protected species surveys are being undertaken, the proposed mitigation measures are considered to minimise any potential adverse effects on the species identified to be present on-site to date and there is scope within the proposals to deliver the appropriate ecological mitigation and enhancements to support local wildlife and biodiversity. An updated addendum report will be provided upon the completion of the additional survey effort, with this setting out any further mitigation or enhancement measures required. Based off current evidence; however, by following the recommendations and enhancements within this report, it is considered that development of the site would be in accordance with relevant planning policy at the national and local level.

7. Summary and Conclusions

- 7.1. Ecology Solutions was commissioned in March 2023 to undertake an ecological assessment of Parcels A3 and A5 at Great Wilsey Park in Haverhill.
- 7.2. The proposals relate to a RMA regarding a residential development including infrastructure, access and landscaping (planning reference: DC/15/2151/OUT).
- 7.3. This Ecological Assessment specifically addresses Condition 4 of the RMA. This condition is as follows:

Any reserved matters planning application shall be supported by further supplementary ecological surveys to inform the preparation and implementation of corresponding phases of ecological measures required by the Environmental Statement. The supplementary surveys shall be of an appropriate type for the habitats and/or species affected by the proposals and survey methods shall follow national good practice guidelines.

Reason: To ensure that wildlife habitats and protected species are not affected adversely by the development.

- 7.4. The site is dominated by two arable fields accompanied by modified and other neutral grassland, Bramble scrub, tall forb, bare ground, rural tree, species-rich native hedgerow and ditch field margin habitats.
- 7.5. **Statutory Sites.** There are no statutory designated sites of nature conservation interest within or immediately adjacent to the site. The closest such site is Trundley and Wadgell's Woods, Great Thurlow SSSI, located approximately 2.8km beyond the northern site boundary, which primarily comprises ancient woodland supporting a range of AWI species, alongside accompanying grassy rides and dense hedges.
- 7.6. The closest LNR is Haverhill Railway Walks, located approximately 0.9km beyond the southern boundary. This site acts as a valuable wildlife corridor into Haverhill, with scrub and tree habitat offering a means of foraging and dispersal for a range of faunal groups.
- 7.7. Although the development site falls within the SSSI IRZ of Trundley and Wadgell's Woods SSSI and Over and Lawn Woods SSSI, the proposals do not qualify as a development identified by Natural England as posing a risk to the integrity of these, or any other, SSSI's. As such, the LPA does not need to consult Natural England on the likely risks.
- 7.8. **Non-statutory Sites.** No non-statutory designated sites of nature conservation interest are present within or immediately adjacent to the site. The closest non-statutory site is Haverhill Disused Railway Line CWS, which partially overlays with Haverhill Railway Walks LNR. This site is designated due to its mosaic of dense species-rich scrub, hedgerow and lowland meadow habitat which support a range of breeding birds, in addition to common reptile species.
- 7.9. The closest LWS is Greatley Wood, located approximately 2.5km south of the site. This is a relatively small parcel of woodland dominated by Ash and Oak and accompanied by a varied ground flora.

- 7.10. The development site is situated within Buglife's B-Lines network. These are a series of 3km wide insect pathways which aim to facilitate the passage of pollinators throughout the country. Planning applications in or around B-Lines should contribute towards increasing resources for pollinators by, for example, delivering habitat restoration, wildflower meadow creation, wildlife gardens, orchard planting, brownfield habitat creation, bee friendly formal planting and / or living roofs.
- 7.11. It is considered that all non-statutory sites are sufficiently removed from the development to be unaffected by the proposals, given standard engineering practice in respect of pollution control and dust is implemented during the construction phase.
- 7.12. **Habitats.** The site comprises a range of common and widespread species; however, these are of interest, largely due to the opportunities they offer wildlife rather than any intrinsic value.
- 7.13. Relatively valuable species-rich native hedgerow and individual tree habitat associated with the field boundaries will be largely retained as part of the scheme and bolstered through the establishment of new woodland planting along the eastern and northern boundaries and the application of a suitable management plan. This habitat will be complemented through the seeding of species-rich wildflower grassland mixes around the site boundaries, increasing the floral diversity of the site.
- 7.14. New ornamental planting provided within the built form of the development will also contribute towards the provision of green infrastructure and connectivity throughout site and heighten nectar resource for invertebrates.
- 7.15. **Badgers.** See confidential Appendix 2.
- 7.16. **Bats.** All trees on and adjacent to site were appraised for their suitability to support roosting bats in November 2023 and May 2025. Two mature Oaks associated with the field margin habitats are categorised as PRF-I trees, being identified to contain PRFs in the form of broken branches and loose bark and therefore may support roosting bats. This said, it is understood that these trees are to be retained and protected post-development and, as such, no mitigation for roosting bats is required. Should this situation change, a Natural England EPS licence may be required to facilitate the destruction of the roosts.
- 7.17. The species-rich native hedgerows, individual trees and adjacent Great Field Plantation are considered to offer foraging and dispersal opportunities for local bat species, heightened by the presence of other neutral grassland habitat around the field boundaries. This has been confirmed by a series of targeted activity transect and remote bat surveys conducted across 2022, 2023 and 2025, albeit with additional survey work to be completed in 2025, the results of which will be detailed in an addendum report.
- 7.18. By far the most abundant bat species observed on-site was Common Pipistrelle, with most of the remaining registrations attributed to Soprano Pipistrelle, both relatively common and widespread species. Additional species present, albeit only recorded in low frequency, include Nathusius' Pipistrelle, Noctule, Leisler's Bat, Serotine, Myotis sp. and Brown Long-eared Bat. A small quantity of

Barbastelle calls, a rarer bat species, were also recorded across the survey work; however, given the low detection rate of this species, which comprises less than 2% of the bat calls registered, it is not considered that the development site would be of great importance for this species.

- 7.19. Relatively valuable habitat, such as species-rich native hedgerows and individual trees, will largely be protected, retained and, through new woodland and tree planting, enhanced post-development. This, alongside the inclusion of a bat hop facilitating dispersal over the proposed access road connecting Parcels A3 and A5, the provision of attenuation features and wildflower grassland seeding heightening food resource and the adoption of a sensitive lighting scheme including dark corridors, will ensure that foraging and commuting opportunities for bats are retained and enhanced post-development. The provision of bat boxes / tiles will also offer new roosting opportunities across site.
- 7.20. **Otter and Water Vole.** No evidence of Otter or Water Vole has been recorded during any of the surveys undertaken. Additionally, given the habitats present on and directly adjacent to site, it is not considered that the site offers any suitability for Otters and Water Voles and, therefore, no mitigation or further consideration with regards to these species is considered necessary.
- 7.21. **Dormice.** The species-rich native hedgerows that bound the site, in addition to the adjacent Great Field Plantation, were identified as potentially offering suitability for Dormice. Consequently, these areas have been subject to targeted surveys for this species between May and September 2023. Given the extent of intervening time since the completion of these, a series of updated surveys are currently underway, of which the first was completed in April 2025. No evidence suggesting that Dormice are presently utilising these habitats has been identified thus far across this survey effort. The results of the remaining 2025 surveys will be detailed within a subsequent addendum upon their completion.
- 7.22. No specific mitigation measures are currently understood to be required for this species, however, the retention of the majority of the species-rich native hedgerows around the site boundaries and accompanying new woodland planting along the eastern and northern site boundaries will ensure that the site continues to provide suitability for hosting Dormice.
- 7.23. **Other Mammals.** The suite contains the likelihood of supporting a further three mammal species listed as priority species under Section 41 of the NERC Act 2006, namely Hedgehog, Harvest Mouse and Brown Hare.
- 7.24. Although no evidence of Hedgehog was recorded during the survey work undertaken, the other neutral grassland and species-rich native hedgerow habitat does offer suitability for foraging, dispersing and, in the latter instance, hibernating Hedgehogs.
- 7.25. Any clearance of log piles or other Hedgehog shelter features will be subject to inspection to ensure that Hedgehogs are absent, while any vegetation clearance should be carried out in a systematic and controlled manner to allow Hedgehogs to disperse. Trenches or deep pits associated with construction that are to be left open overnight should also be provided with a means of escape in case a Hedgehog enters.

- 7.26. The retention of species-rich native hedgerows combined with the provision of new other neutral (wildflower) grassland seeding and woodland planting around the site boundaries will ensure that the site continues to offer suitability to support Hedgehogs. The inclusion of Hedgehog gateways within the residential properties' gardens will also ensure that the site remains permeable for this species post-development.
- 7.27. There have also been no sightings of Harvest Mice on-site; however, this species has previously been found within the wider Great Wilsey Park development, with suitable other neutral grassland and species-rich native hedgerow habitats capable of supporting this species present on-site. Mitigation for this species will be tied with that proposed for common reptiles whereby the clearance of any areas of suitable vegetation is to be carried out in a systematic and controlled manner. Any Harvest Mice encountered during this process will be relocated to an area of suitable habitat away from the construction works.
- 7.28. The provision of other neutral (wildflower) grassland seeding subject to a relaxed management regime around the site boundaries, combined with the retention of the species-rich native hedgerows, will ensure that the site continues to offer suitability for Harvest Mice post-development.
- 7.29. Brown Hares have also not been observed on-site, however, two individuals have been observed in the former arable field adjacent to the western boundary of Parcel A3. Due to the proximity of this sighting, combined with the presence of arable farmland suitable for supporting this species on-site, it is likely that this species would utilise the site to some degree.
- 7.30. No specific mitigation is required for this species. While the net loss of arable farmland on-site is inevitable to facilitate the development proposals, numerous alternative arable fields are present within the vicinity of the site which will continue to offer opportunities for this species. The inclusion of other neutral (wildflower) grassland around the site margins will also ensure that some suitability for this species is retained on-site.
- 7.31. **Birds.** The species-rich native hedgerows and individual trees bounding the site provide plentiful opportunities for foraging and nesting birds, heightened by the adjacent Great Field Plantation. Additionally, the arable fields and their surrounding other neutral grassland provide suitability for ground nesting species.
- 7.32. In the surveys conducted to date, the site was confirmed to support four bird species designated under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), namely Red Kite, Redwing, Fieldfare and Barn Owl. Both Redwing and Fieldfare are winter migrants, so would not be expected to utilise the site for breeding purposes, and Red Kite and Barn Owl were only observed flying over / flying adjacent to site, with there being no indication that these species are breeding on-site. An additional 22 species listed on Section 41 of the NERC Act 2006 and / or the BoCC Red or Amber Lists have also been observed on or adjacent to site.
- 7.33. No bird species have been confirmed to be nesting on-site to date, although Carrion Crow was confirmed to be successfully breeding adjacent to site and Skylark, Linnet, Stock Dove, Wood Pigeon, Greater Spotted Woodpecker,

Yellowhammer, Robin, Great Tit, Pheasant, Chiffchaff, Dunnock, Blackcap, Whitethroat, Wren and Blackbird are all considered to be possible breeders.

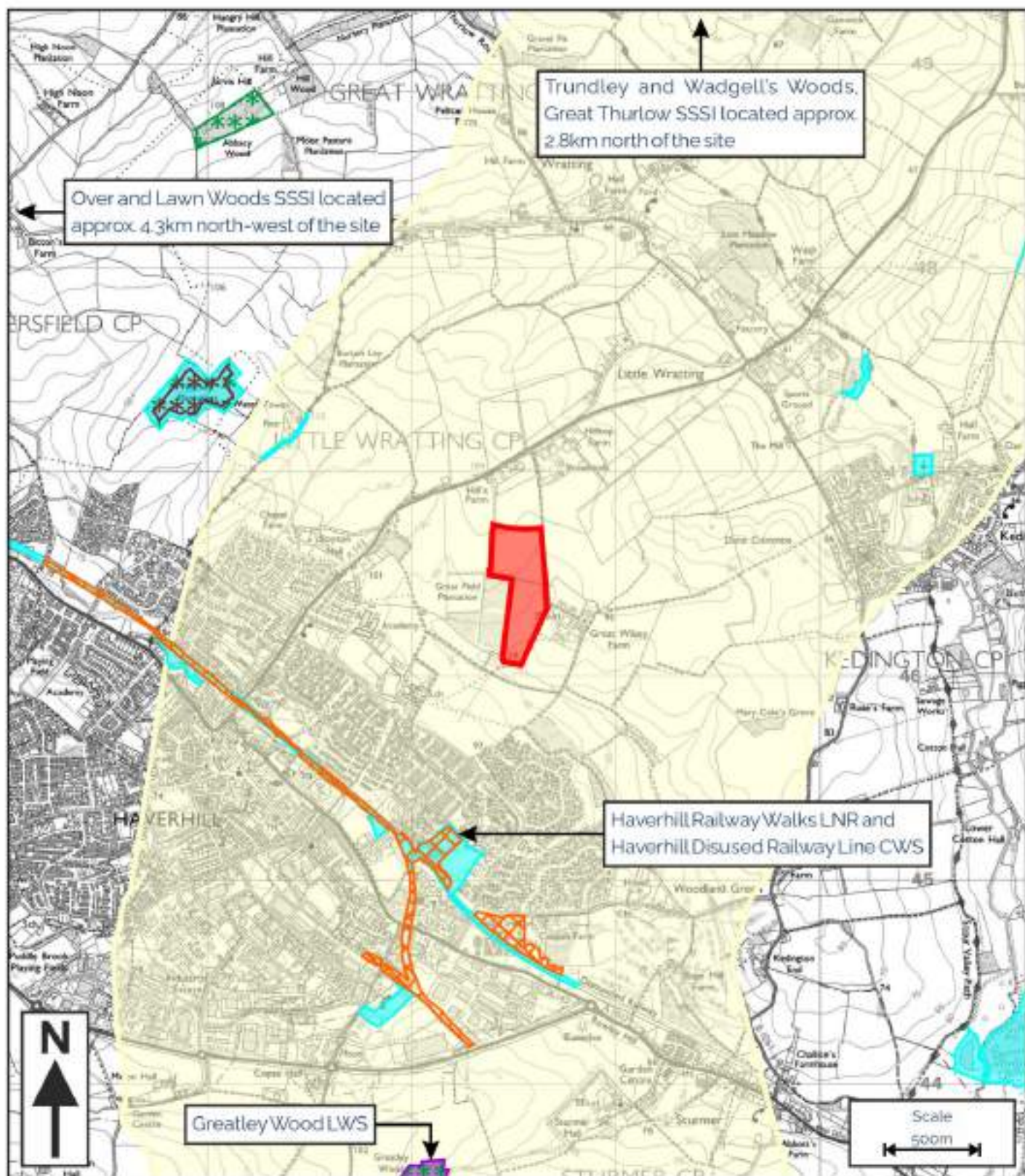
- 7.34. An additional two breeding bird surveys are due to be completed in May and June 2025, the results of which will be incorporated within an addendum report.
- 7.35. The development proposals will largely safeguard the species-rich native hedgerows and individual trees considered to be of value to nesting birds, with these habitats to be bolstered through the inclusion of new woodland and individual tree planting ensuring that opportunities for foraging and dispersing birds are increased post-development.
- 7.36. There will, however, be a loss of arable farmland, a habitat that offers opportunities for ground nesting species. That said, numerous alternative arable fields are located within the local area, with the provision of other neutral (wildflower) grassland seeding around the site boundary enabling continued opportunities for ground nesting birds on-site.
- 7.37. Any clearance of suitable bird nesting habitat should take place outside the nesting bird season (March to August inclusive), or only during this period following a nesting bird check to confirm no active nests are present in order to avoid a potential offence under the legislation.
- 7.38. A variety of bird boxes will also be provided on retained trees and / or incorporated into the newly constructed buildings, elevating nesting potential post-development.
- 7.39. **Reptiles.** Targeted surveys for common reptile species were undertaken within suitable other neutral grassland field boundary habitat between May and June 2023. These confirmed the presence of small populations of Common Lizard and Grass Snake around the eastern, southern and western boundaries of Parcel A3 and a small population of Grass Snakes around the eastern and western boundaries of Parcel A5. Due to the extent of intervening time since the completion of these surveys, Ecology Solutions is currently conducting a series of updated presence / absence surveys, of which the first was completed in April 2025. This survey confirmed the continued presence of a low population of Common Lizards around the field boundaries of Parcel A3. The remaining results of the 2025 reptile surveys will be detailed within an addendum report upon their completion.
- 7.40. The mitigation for this group will follow a habitat manipulation exercise whereby any suitable habitat to be impacted by the development would be sensitively made unsuitable for reptiles prior to the commencement of works within these areas, thereby encouraging reptiles to move to retained adjacent areas of suitable habitat.
- 7.41. Post-development, opportunities for this group on-site will continue to be provided through the establishment of other neutral (wildflower) grassland managed to enable the formation of a tussocky long sward. Additionally, the provision of reptile hibernacula within areas of newly established habitat at the fringes of the development would ensure refugia and hibernation opportunities on-site for this group.

- 7.42. **Amphibians.** No waterbodies considered to be suitable for Great Crested Newts are present on or adjacent to site. Off-site waterbodies within 500m from the site boundary that are not separated by a significant dispersal barrier were subject to eDNA surveys for Great Crested Newts, where access could be obtained. These surveys confirmed the absence of these species within these features. Suitable terrestrial habitat for Great Crested Newts, or other common amphibian species, does exist on-site, however, in the form of the other neutral grassland field boundaries.
- 7.43. There is a known presence of Common Toad within the wider Great Wilsey Park development. Although this species has not been observed on-site, given that the site contains suitable ditch and other neutral grassland habitat for this species, its potential presence cannot be ruled out.
- 7.44. No specific mitigation is considered necessary for Great Crested Newts. Mitigation for Common Toads will be tied with that proposed for common reptile species whereby the clearance of any areas of suitable vegetation will be carried out in a systematic and controlled manner and, on the occasion that a Common Toad is encountered, it will be carefully removed to an area of suitable habitat away from working areas.
- 7.45. As the current development proposals retain the majority of the ditches across site, with these to be bolstered through the inclusion of new attenuation features and other neutral (wildflower) grassland, it is considered that both aquatic and terrestrial opportunities for Common Toads and other common amphibian species will be enhanced post-development.
- 7.46. **Invertebrates.** The retention of existing species-rich native hedgerows combined with the provision of new woodland planting and other neutral (wildflower) grassland seeding will offer increased suitability for a range of common invertebrate species, heightened further by the inclusion of new attenuation features providing opportunities for aquatic invertebrates and flowering plants associated with areas of ornamental planting. Additionally, the inclusion of loggeries would offer a direct benefit to saproxylic species.
- 7.47. The site is acknowledged as having suitability for several protected and priority species. Targeted surveys were undertaken for Badgers, bats, Otters, Water Voles, Dormice, birds and reptiles in 2022 and 2023, with updated surveys for these groups, in addition to Great Crested Newts, currently underway as of 2025, given the extent of time that has elapsed. Mitigation measures and recommendations to maintain the favourable conservation status of the protected and priority species identified to be utilising the site have been outlined within this report. It is considered that, with the adoption of the safeguards and enhancements detailed within this report, adverse effects can be avoided or adequately mitigated. On the current evidence, there are no insurmountable ecological constraints to bringing the site forward as a sustainable development.

Plans

PLAN ECO1

Site Location and Ecological Designations



KEY:

- SITE LOCATION
- LOCAL NATURE RESERVES (LNR)
- COUNTY WILDLIFE SITES (CWS)
- LOCAL WILDLIFE SITES (LWS)
- BUGLIFE B-LINES
- ***
 ANCIENT & SEMI-NATURAL WOODLAND
- ***
 ANCIENT REPLANTED WOODLAND



Coleman Estate
Berkway | Royston
Hertfordshire | SG8 8DL
info@ecology-solutions.co.uk
www.ecology-solutions.co.uk

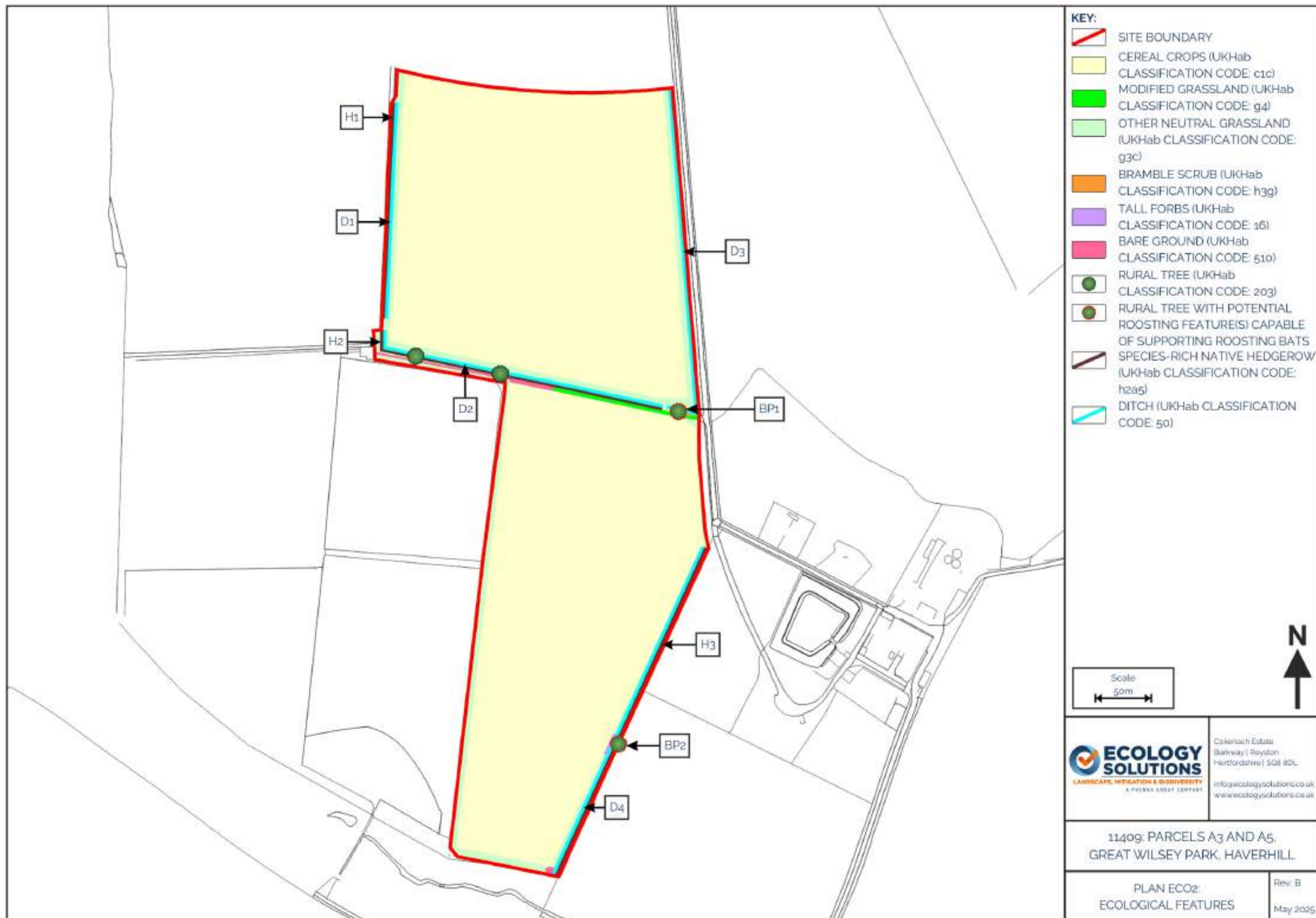
11409: PARCELS A3 AND A5
GREAT WILSEY PARK, HAVERHILL

PLAN ECO1: SITE LOCATION AND
ECOLOGICAL DESIGNATIONS

Rev. B
May 2025

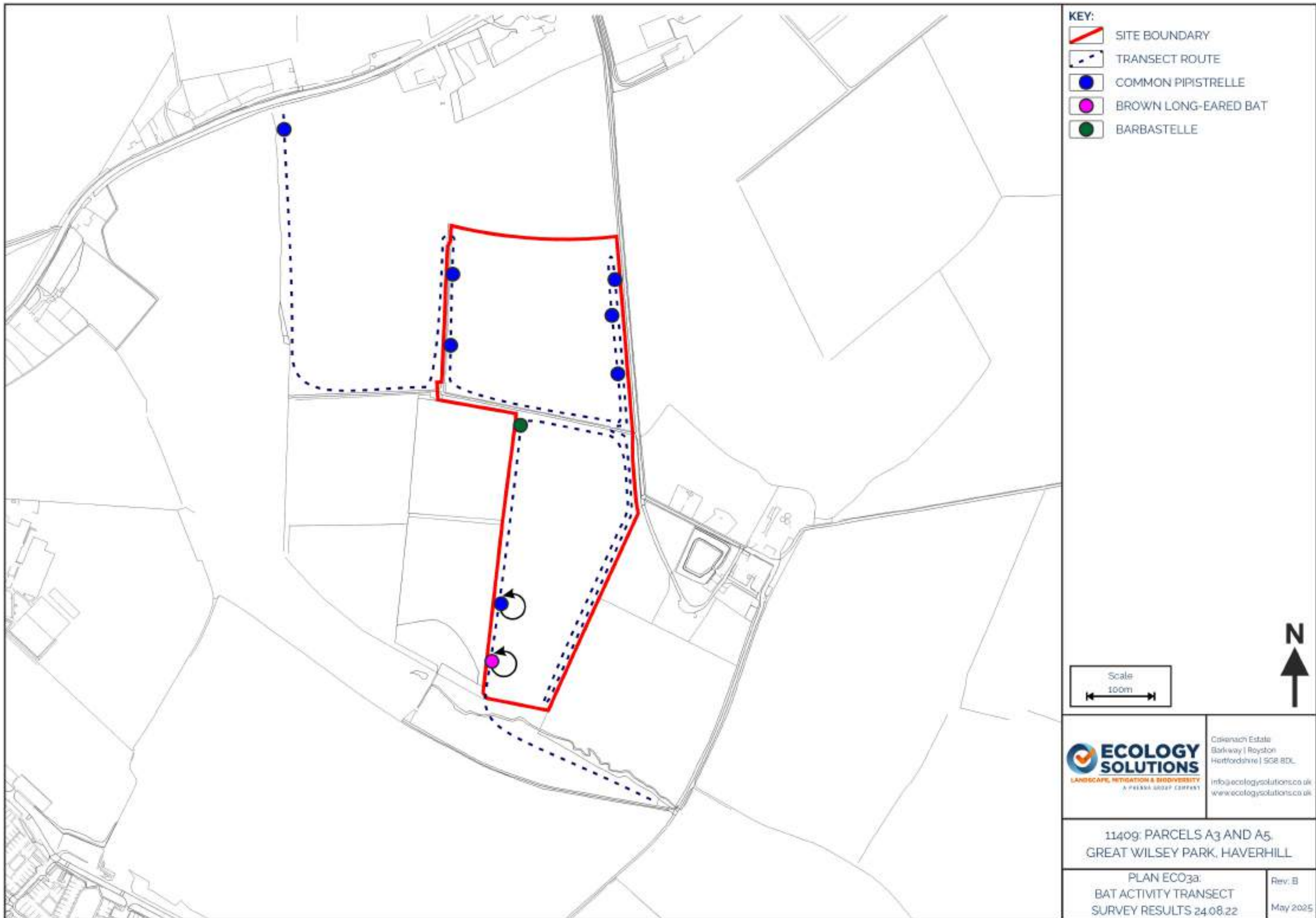
PLAN ECO₂

Ecological Features



PLAN ECO3a

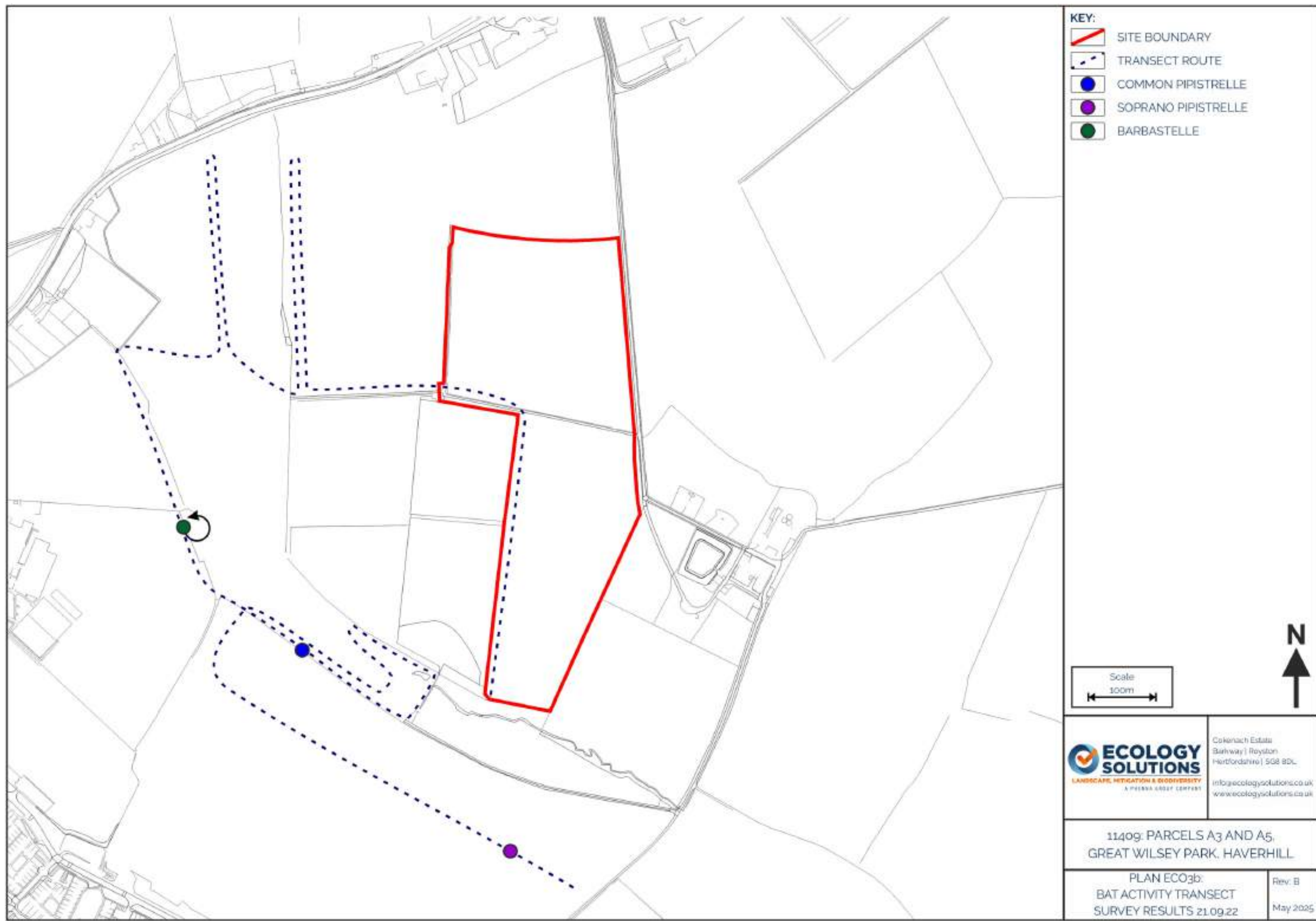
Bat Activity Transect Survey Results 24.08.22



PLAN ECO_{3b}

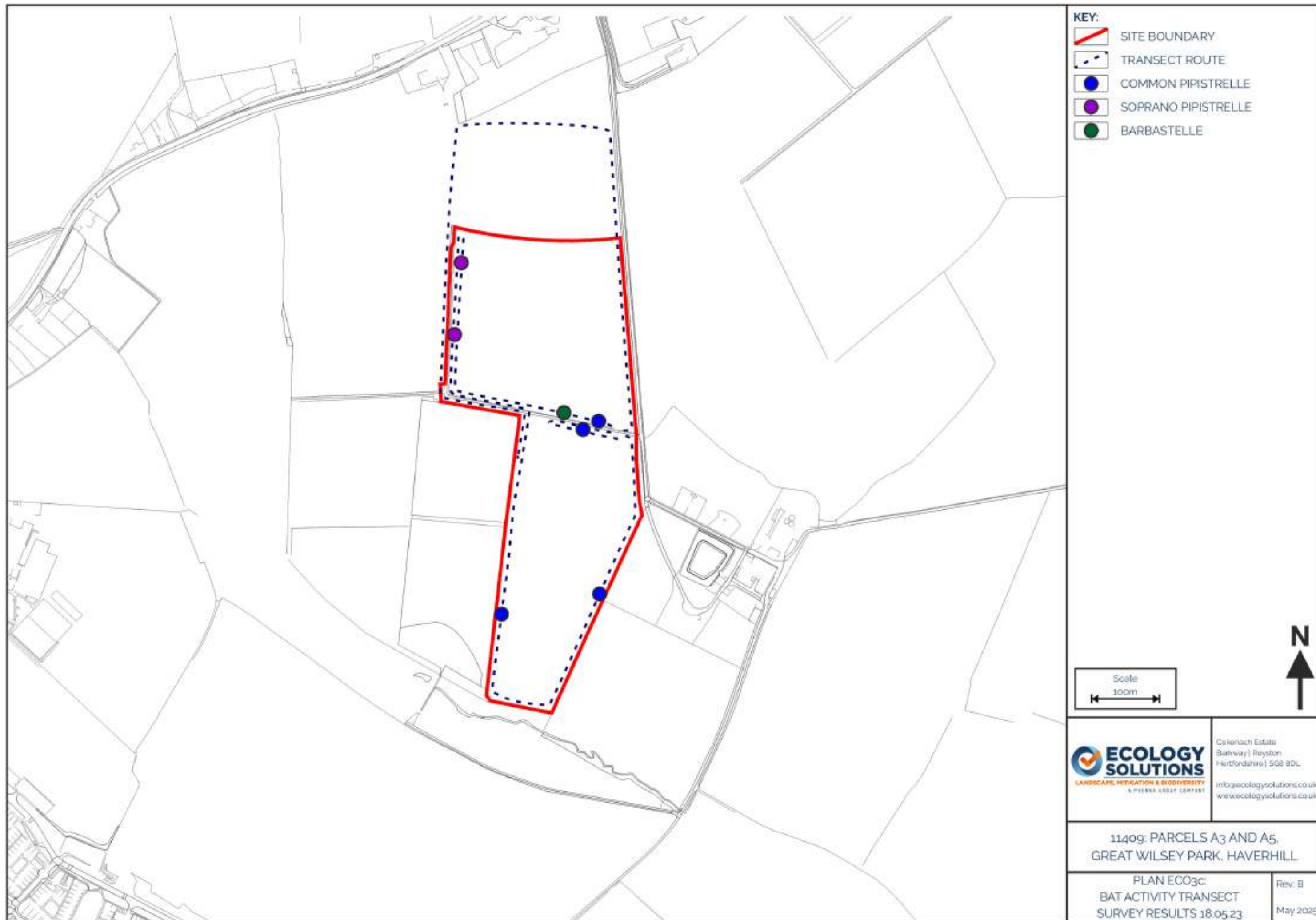
Bat Activity Transect Survey Results 21.09.22

Based upon the Ordnance Survey map with permission of the Controller of His Majesty's Stationery Office. © Crown Copyright. Ecology Solutions Ltd. Cokerach Estate, Barkway, Royston, Hertfordshire, SG8 8DL. 10004628






PLAN ECO₃c

Bat Activity Transect Survey Results 18.05.23



PLAN ECO_{3d}

Bat Activity Transect Survey Results 14.06.23

 SITE BOUNDARY
 TRANSECT ROUTE
 COMMON PIPISTRELLE
 SOPRANO PIPISTRELLE

Scale
100m



Cokerach Estate
Barhway | Royston
Hertfordshire | SG8 8DL
info@ecology-solutions.co.uk
www.ecology-solutions.co.uk

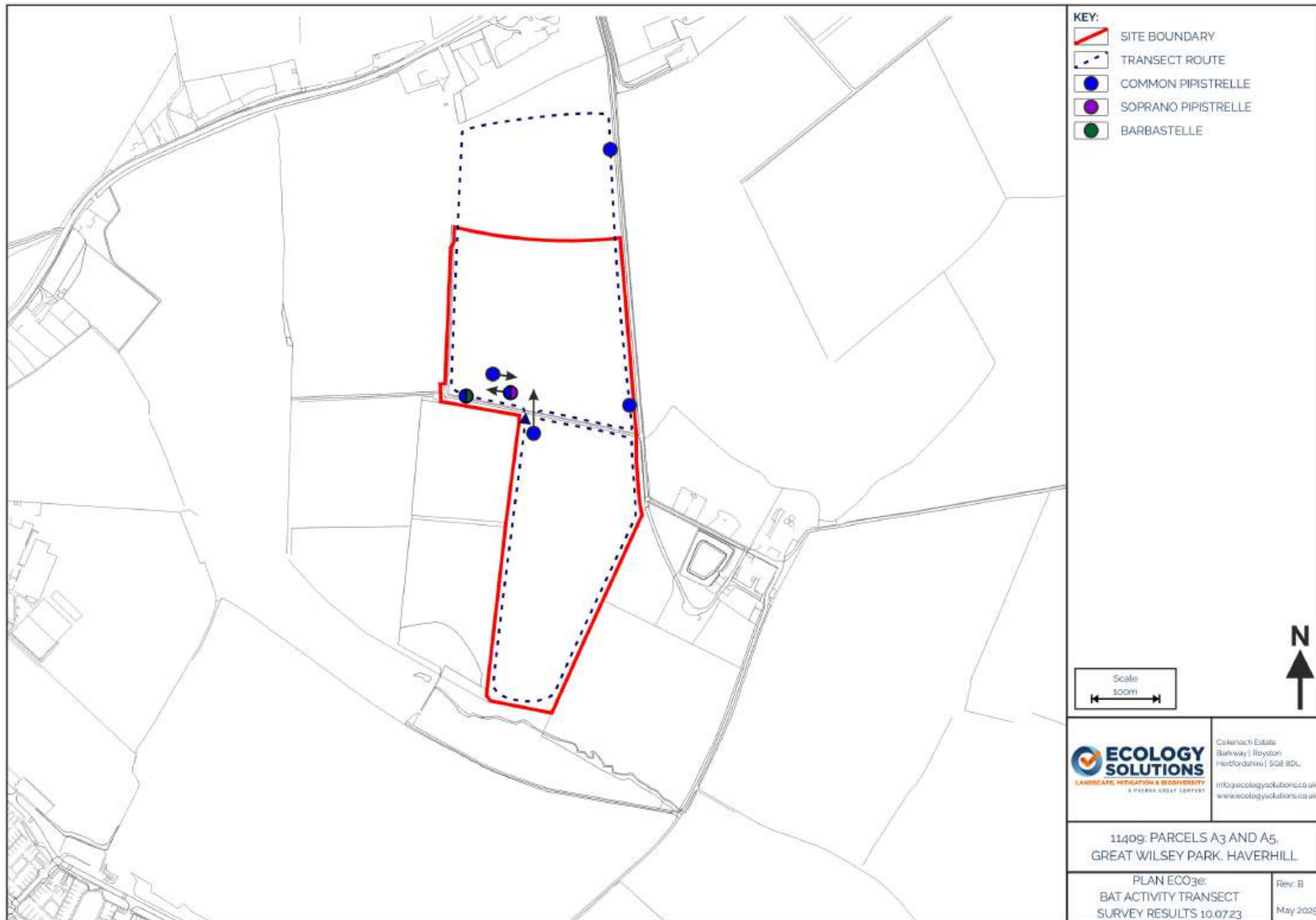
11409: PARCELS A3 AND A5,
GREAT WILSEY PARK, HAVERHILL

PLAN ECO3d:
BAT ACTIVITY TRANSECT
SURVEY RESULTS 14.06.23

Rev: B
May 2025

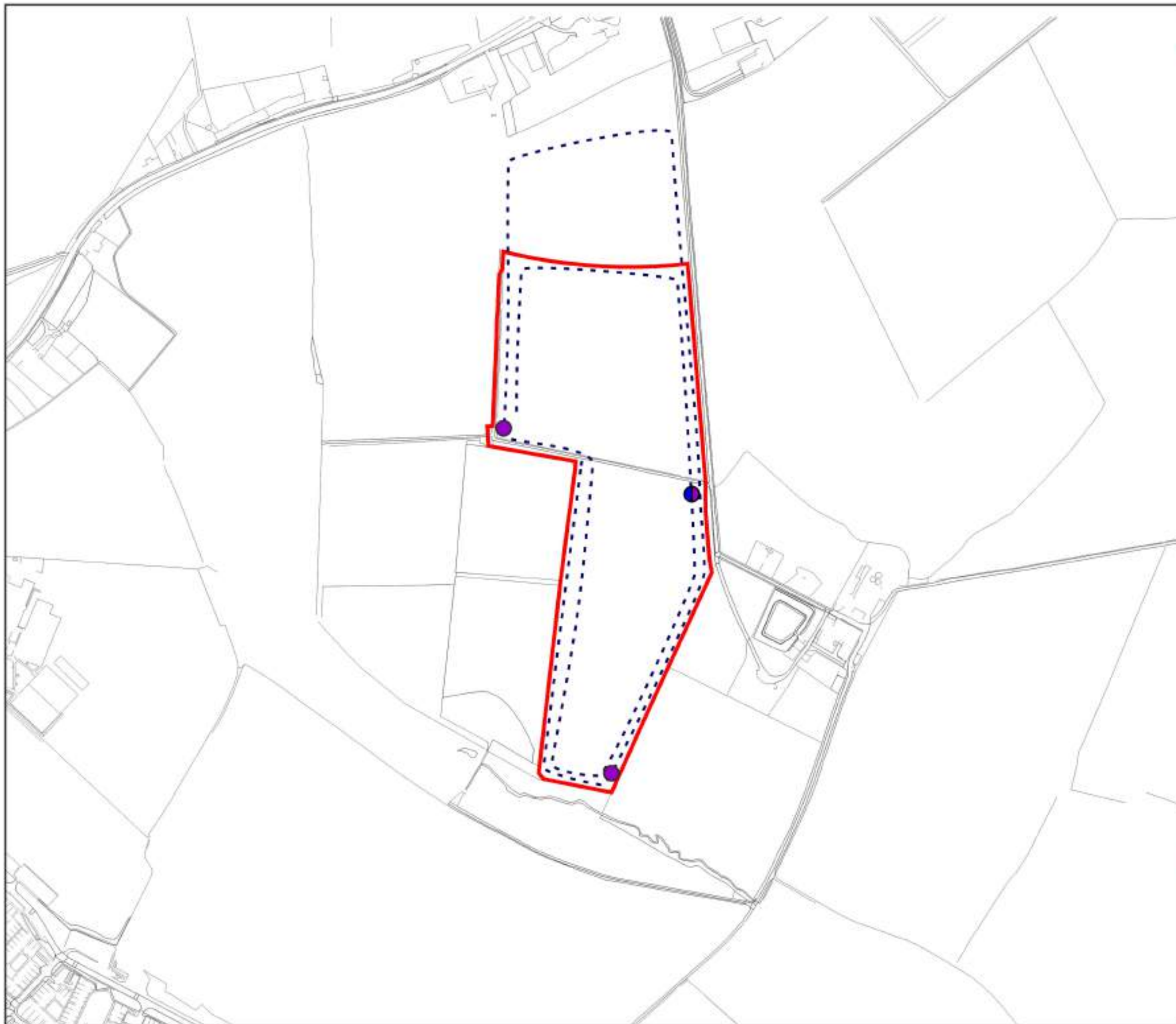
PLAN ECO3e

Bat Activity Transect Survey Results 10.07.23



PLAN ECO₃f

Bat Activity Transect Survey Results 12.10.23



- KEY:
- SITE BOUNDARY
 - TRANSECT ROUTE
 - COMMON PIPISTRELLE
 - SOPRANO PIPISTRELLE

Scale
100m



Cokeragh Estate
Barkway | Royston
Hertfordshire | SG8 8DL
info@ecologysolutions.co.uk
www.ecologysolutions.co.uk

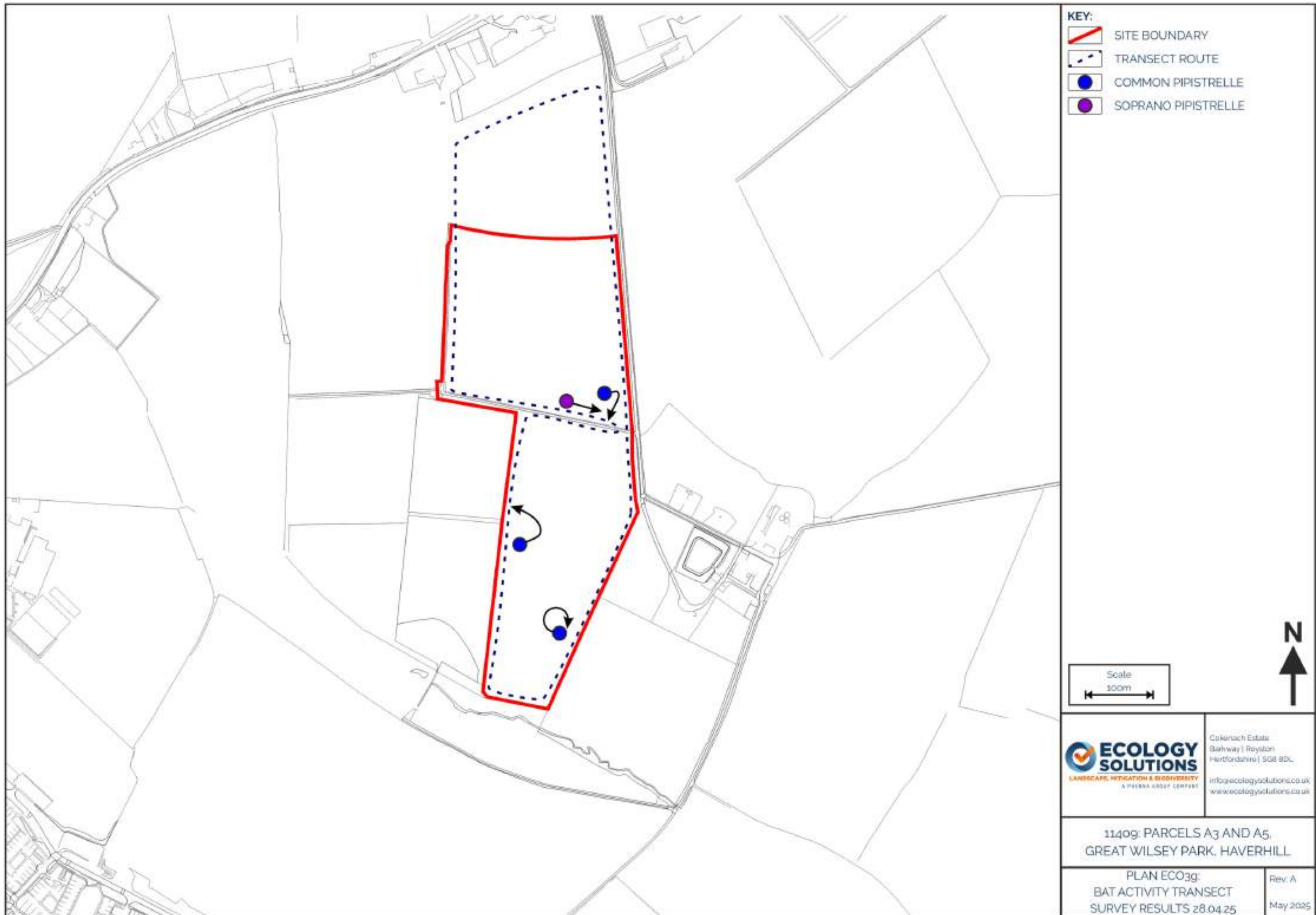
11409: PARCELS A3 AND A5,
GREAT WILSEY PARK, HAVERHILL

PLAN ECO3f:
BAT ACTIVITY TRANSECT
SURVEY RESULTS 12.10.23

Rev: B
May 2025

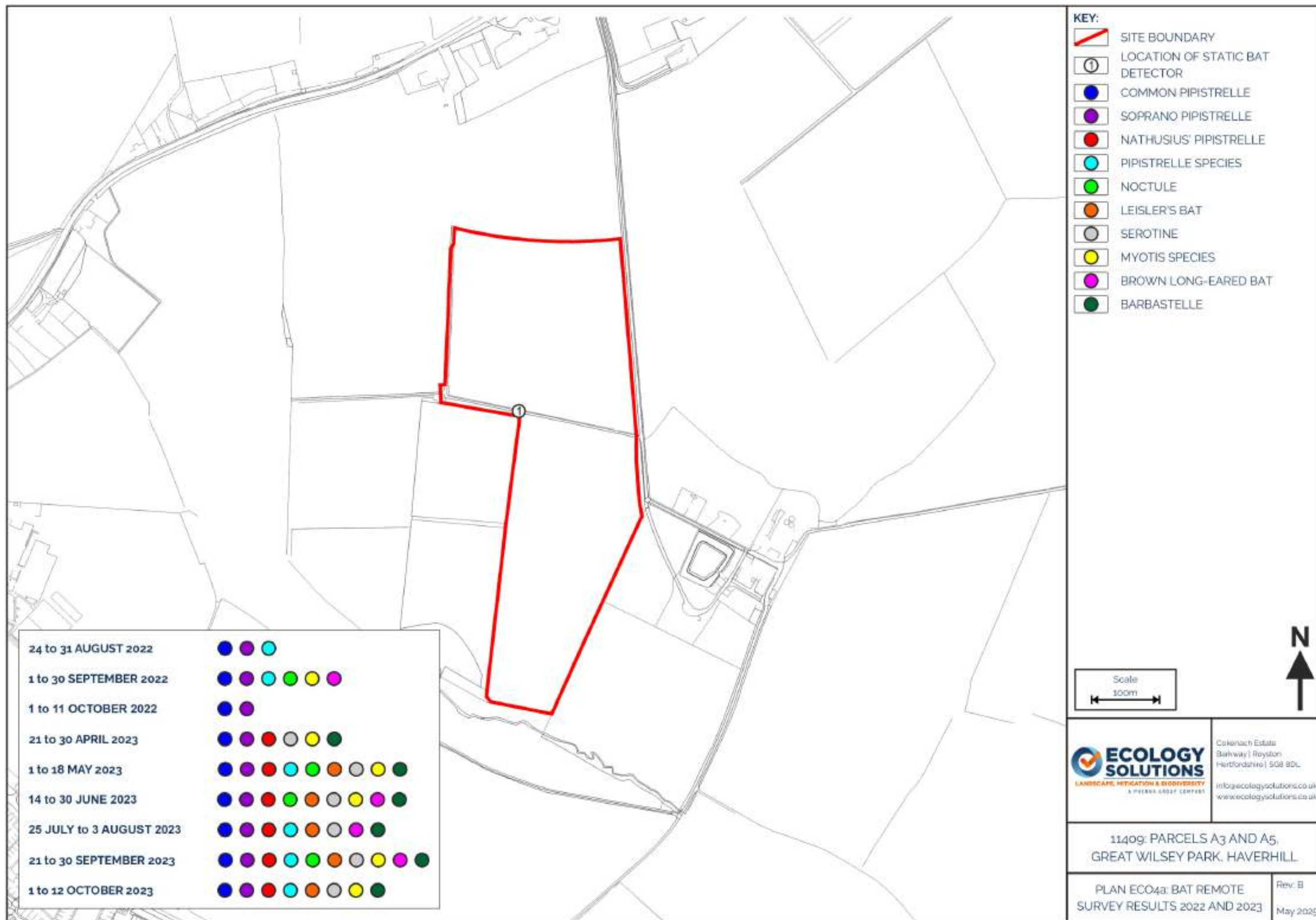
PLAN ECO3g

Bat Activity Transect Survey Results 28.04.25



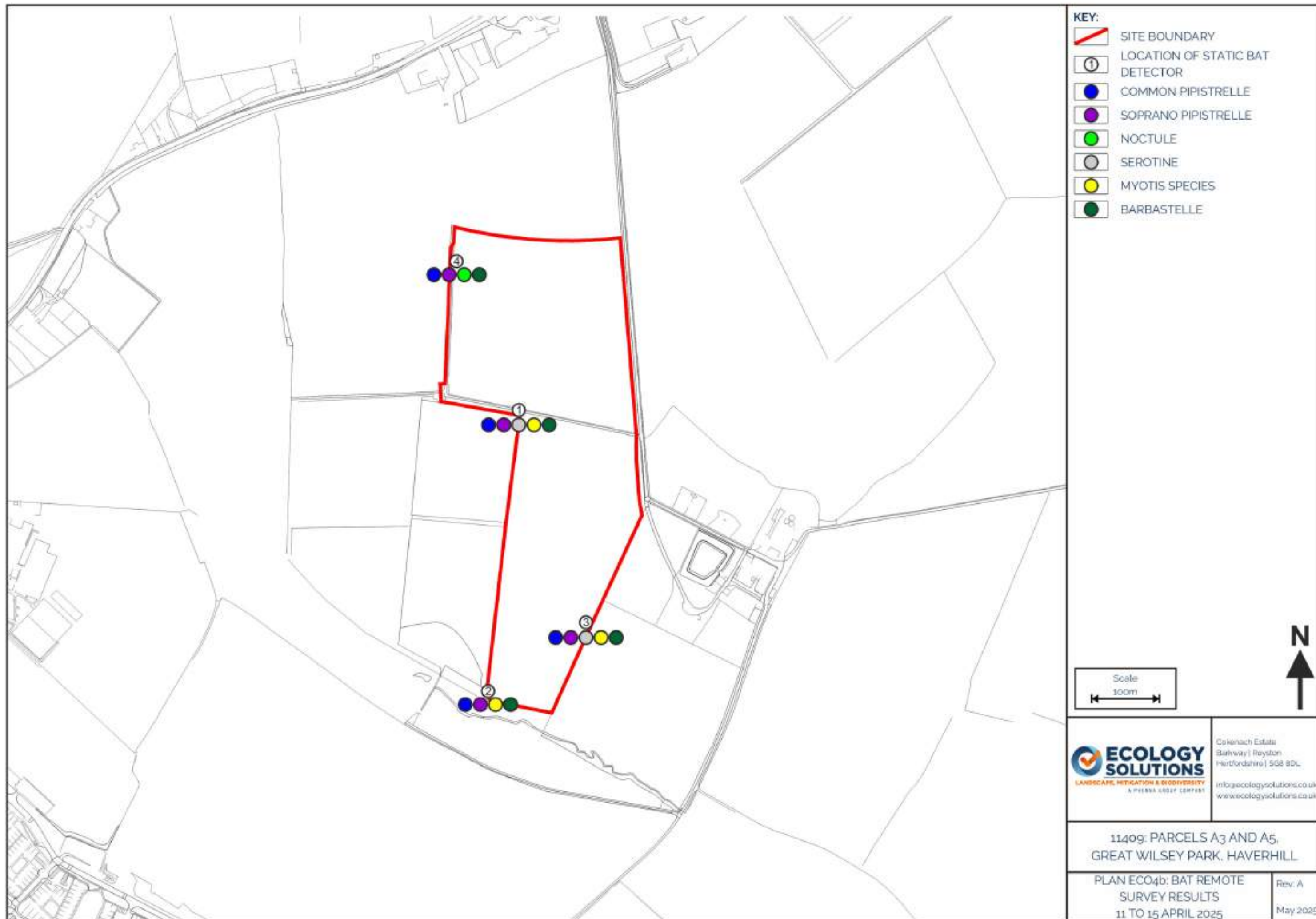
PLAN ECO4a

Bat Remote Survey Results 2022 and 2023



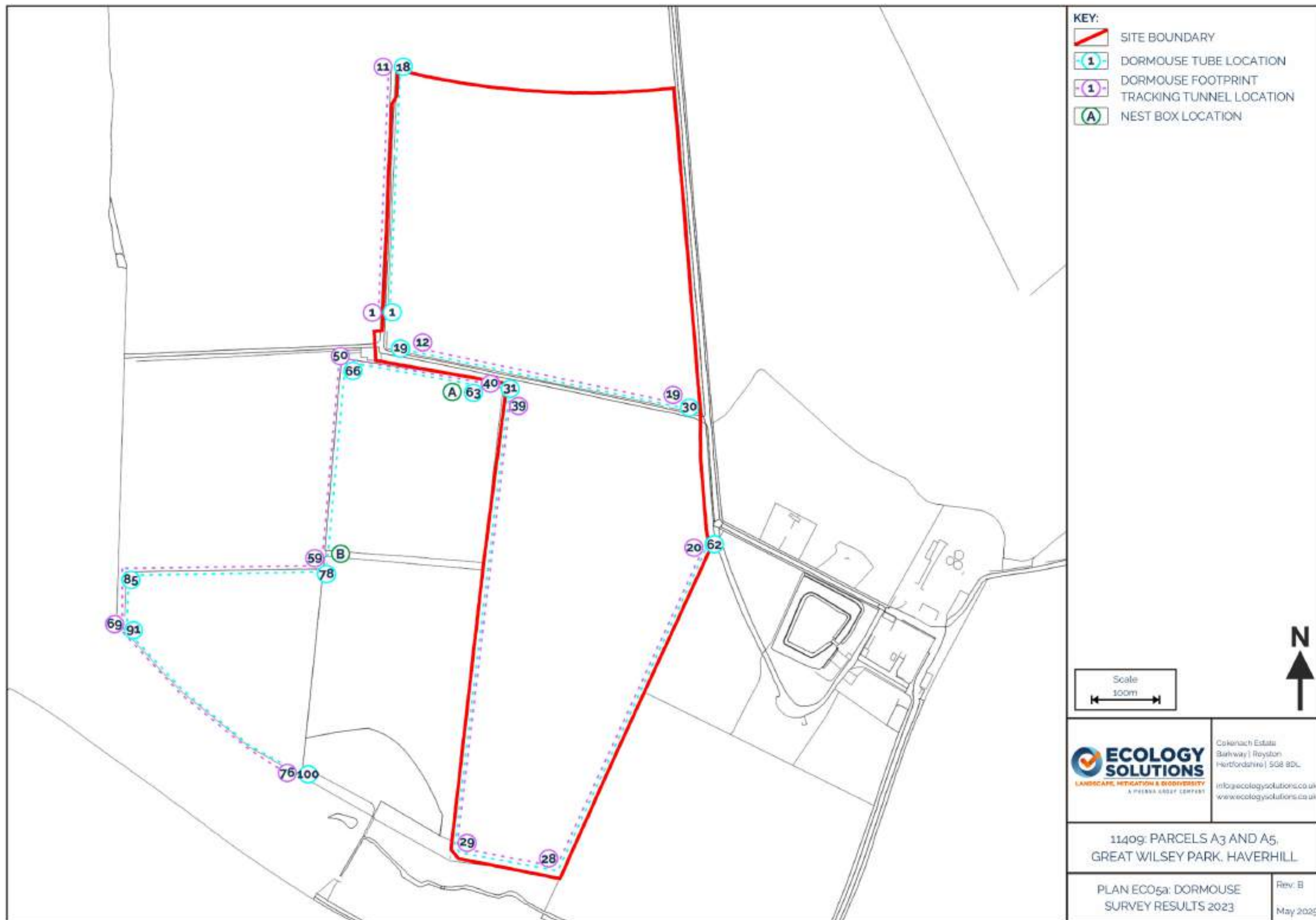
PLAN ECO4b

Bat Remote Survey Results 11 to 15 April 2025



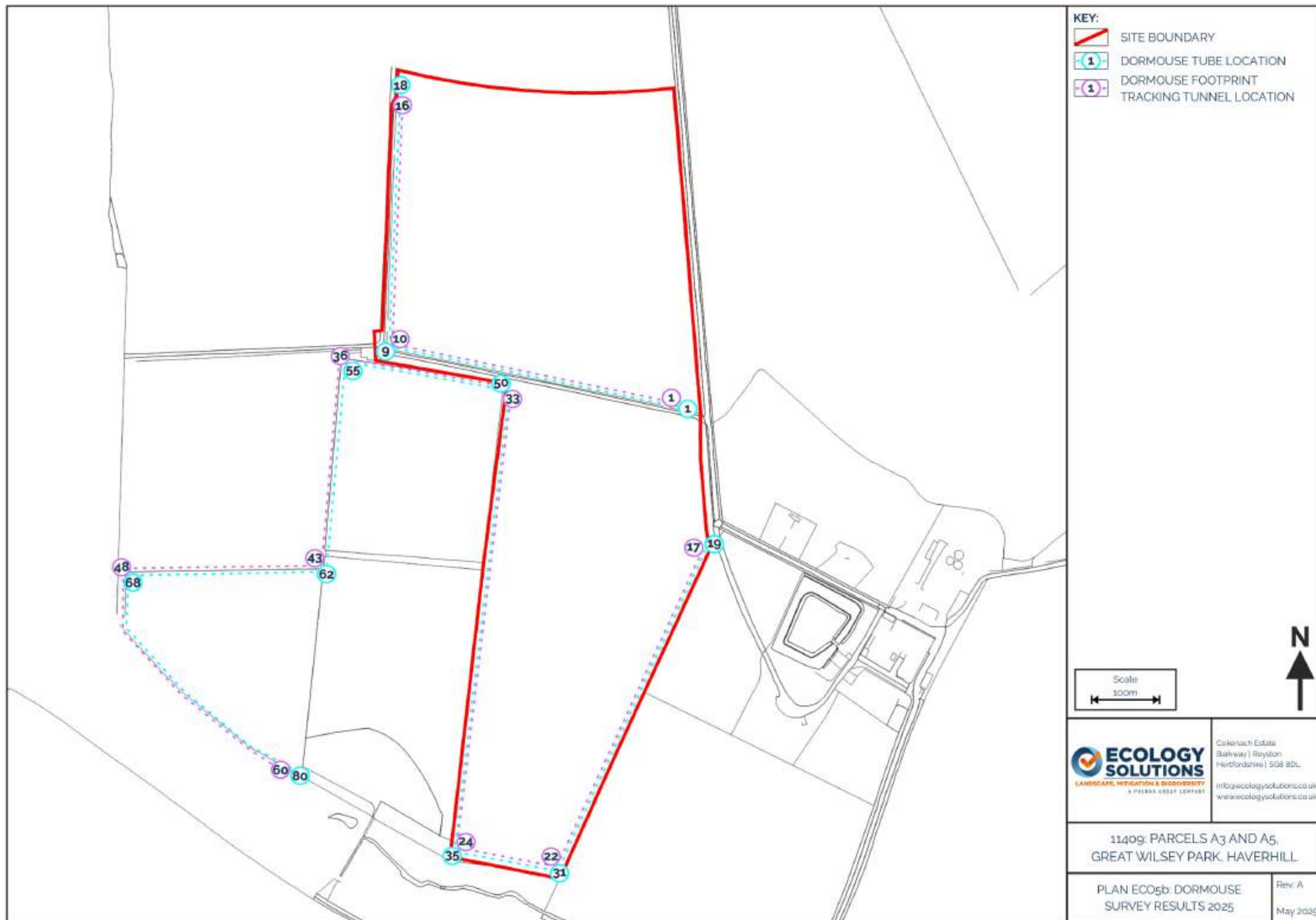
PLAN ECO5a

Dormouse Survey Results 2023



PLAN ECO5b

Dormouse Survey Results 2025

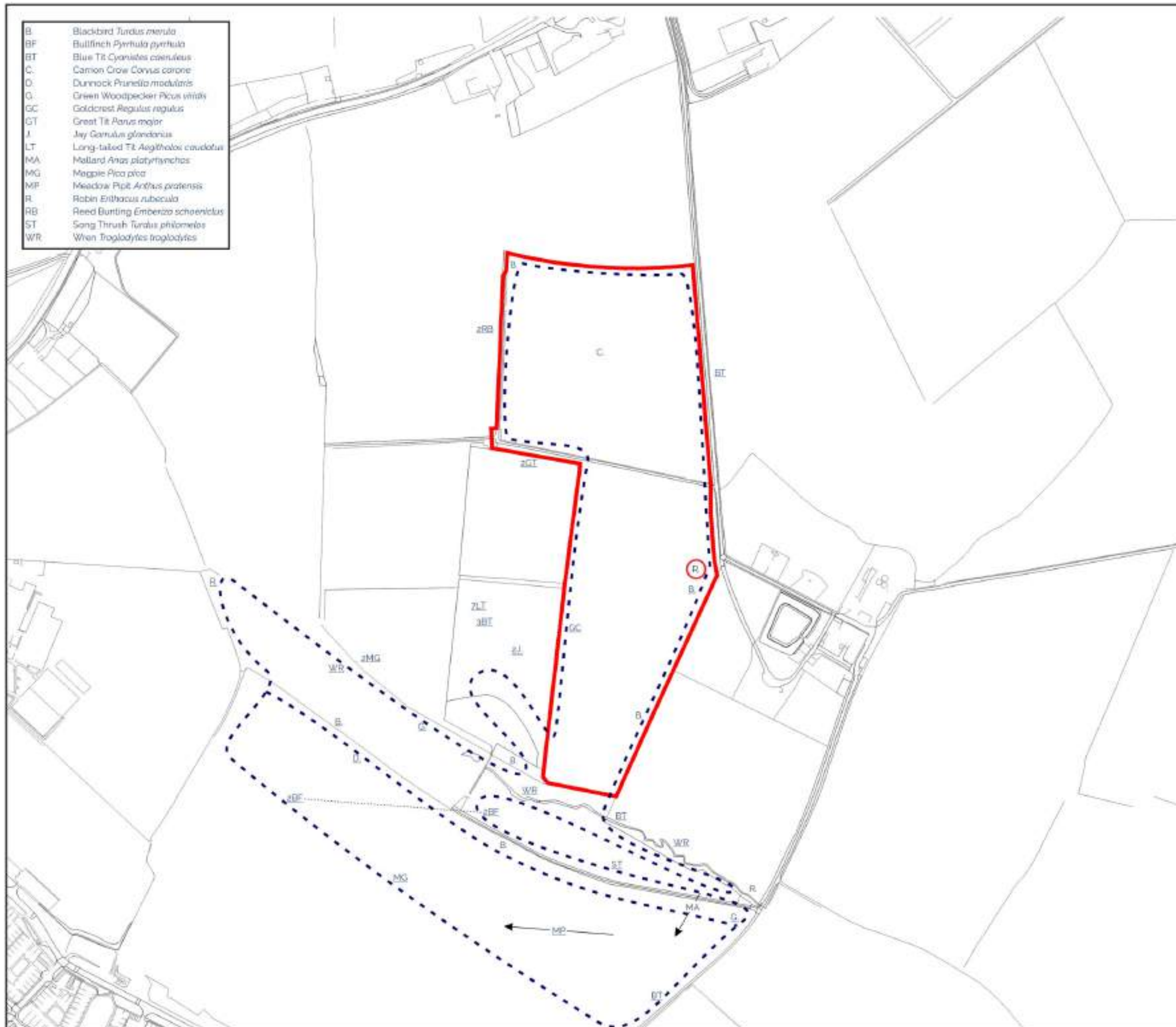


PLAN ECO6a

Wintering Bird Survey Results 22.12.22

B.	Blackbird <i>Turdus merula</i>
BF	Bullfinch <i>Pyrrhula pyrrhula</i>
BT	Blue Tit <i>Cyanistes caeruleus</i>
C.	Common Crow <i>Corvus corone</i>
D.	Dunnock <i>Prunella modularis</i>
G.	Green Woodpecker <i>Picus viridis</i>
GC	Goldcrest <i>Regulus regulus</i>
GT	Great Tit <i>Parus major</i>
J.	Jay <i>Garrulus glandarius</i>
LT	Long-tailed Tit <i>Aegithalos caudatus</i>
MA	Mallard <i>Anas platyrhynchos</i>
MG	Maggie <i>Pica pica</i>
MP	Meadow Pipit <i>Anthus pratensis</i>
R.	Robin <i>Erithacus rubecula</i>
RB	Reed Bunting <i>Emberiza schoeniclus</i>
ST	Song Thrush <i>Turdus philomelos</i>
WR	Wren <i>Troglodytes troglodytes</i>

	SITE BOUNDARY
	TRANSECT ROUTE
	BIRD SPECIES
	BIRD CALLING
	BIRD SINGING
	BIRD SHOWING AGITATION
	NUMBER OF BIRDS
	BIRD FLYING OVER
	PROBABLY THE SAME BIRD



ECOLOGY SOLUTIONS
LANDSCAPE, MITIGATION & BIODIVERSITY
A PERKINS LOGGY COMPANY

Cokerach Estate
Barway | Royston
Hertfordshire | SG8 8DL
info@ecologysolutions.co.uk
www.ecologysolutions.co.uk

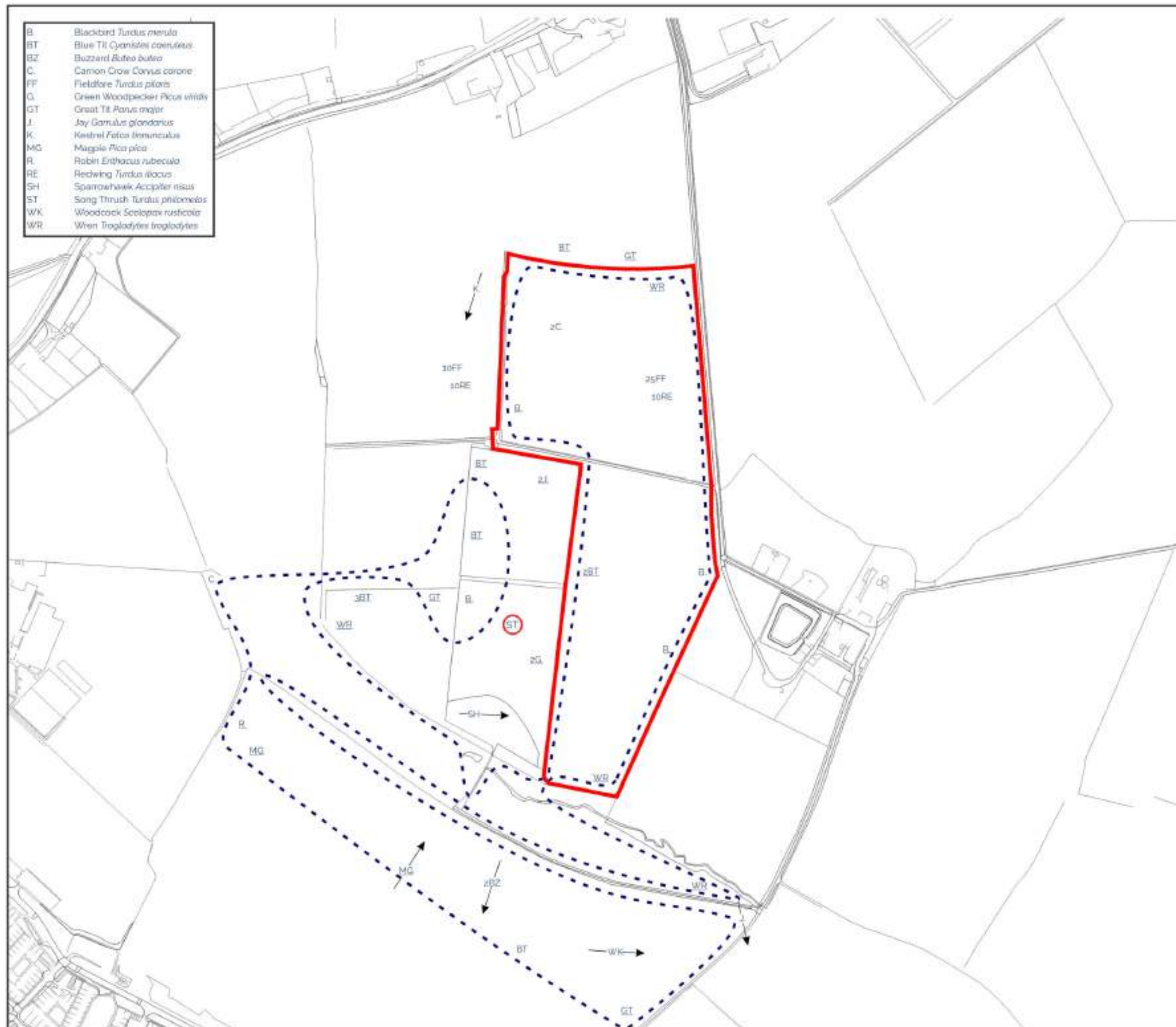
11409: PARCELS A3 AND A5, GREAT WILSEY PARK, HAVERHILL	
PLAN ECO6a: WINTERING BIRD SURVEY RESULTS 22.12.22	Rev: B May 2025

PLAN ECO6b

Wintering Bird Survey Results 23.01.23

B.	Blackbird <i>Turdus merula</i>
BT	Blue Tit <i>Cyanistes caeruleus</i>
BZ	Buzzard <i>Buteo buteo</i>
C.	Common Crow <i>Corvus corone</i>
FF	Fieldfare <i>Turdus phoeniceus</i>
G.	Green Woodpecker <i>Picus viridis</i>
GT	Great Tit <i>Parus major</i>
J.	Jay <i>Garrulus glandarius</i>
K.	Kestrel <i>Falco tinnunculus</i>
MG	Maggpie <i>Pica pica</i>
R.	Robin <i>Erithacus rubecula</i>
RE	Redwing <i>Turdus iliacus</i>
SH	Sparrowhawk <i>Accipiter nisus</i>
ST	Song Thrush <i>Turdus philomelos</i>
WK	Woodcock <i>Scolopax rusticola</i>
WR	Wren <i>Troglodytes troglodytes</i>

	SITE BOUNDARY
	TRANSECT ROUTE
	BIRD SPECIES
	BIRD CALLING
	BIRD SINGING
	NUMBER OF BIRDS
	BIRD FLYING OVER



Scale
100m

ECOLOGY SOLUTIONS
LANDSCAPE, MITIGATION & BIODIVERSITY
A PERENA GROUP COMPANY

Cokerach Estate
Barkway | Royston
Hertfordshire | SG8 8DL
info@ecologysolutions.co.uk
www.ecologysolutions.co.uk

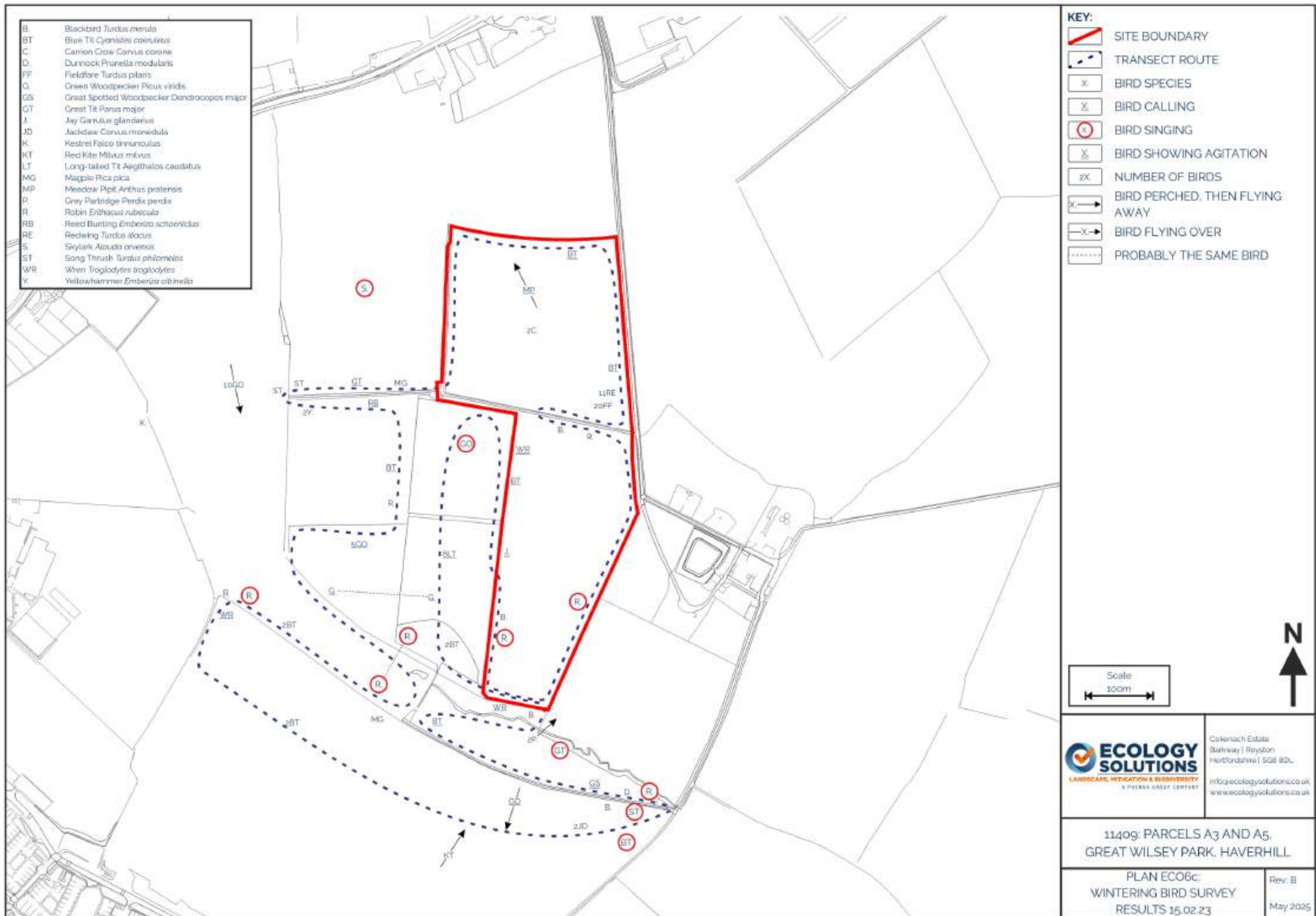
11409: PARCELS A3 AND A5,
GREAT WILSEY PARK, HAVERHILL

PLAN ECO6b:
WINTERING BIRD SURVEY
RESULTS 23.01.23

Rev: B
May 2025

PLAN ECO6c

Wintering Bird Survey Results 15.02.23



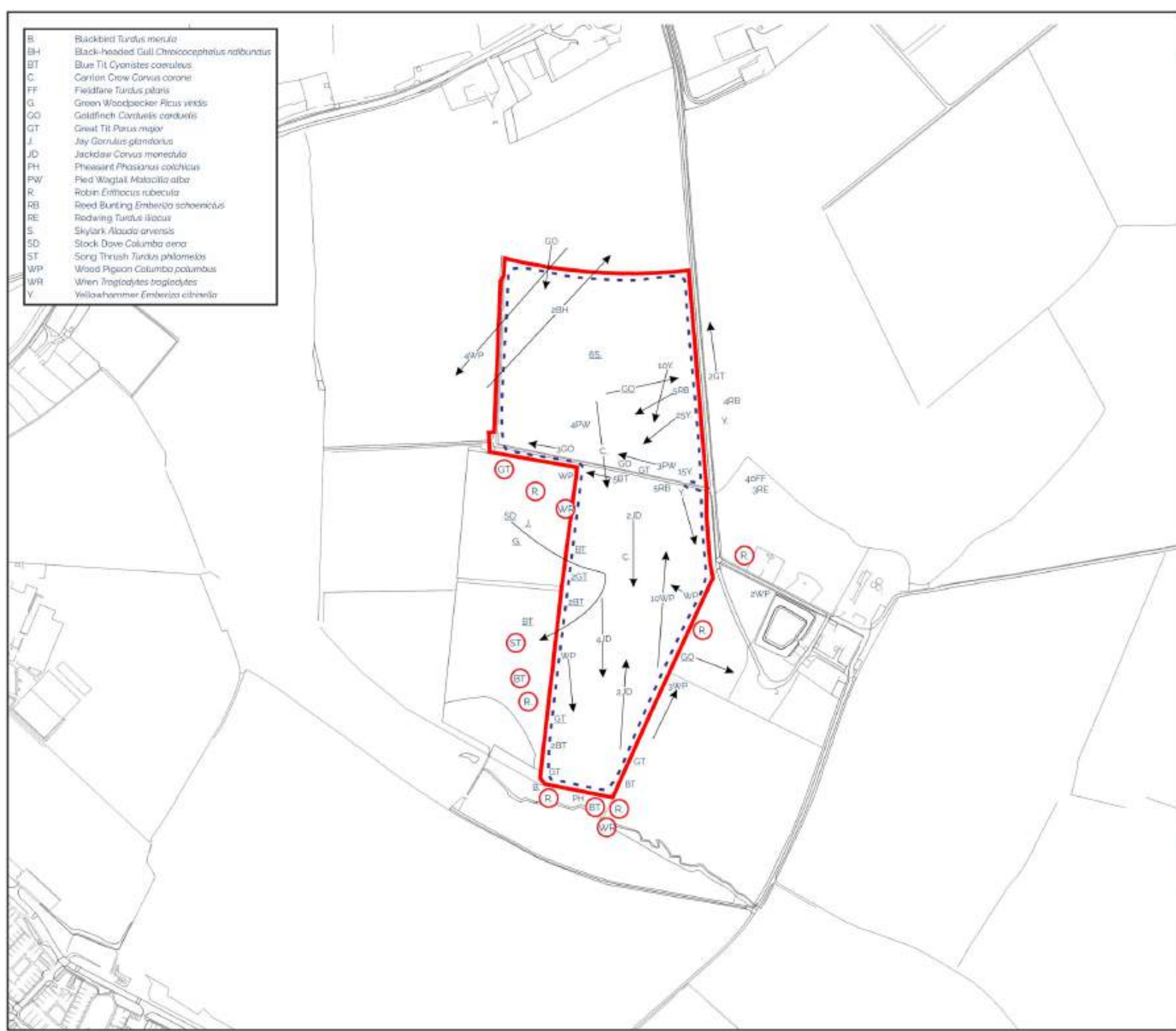
PLAN ECO6d

Wintering Bird Survey Results 29.01.25

Based upon the Ordnance Survey map with permission of the Controller of His Majesty's Stationery Office. © Crown Copyright. Ecology Solutions Ltd. Cokerach Estate, Royston, Hertfordshire, SG8 8DL. 10004628

B.	Blackbird <i>Turdus merula</i>
BH	Black-headed Gull <i>Chroicocephalus ridibundus</i>
BT	Blue Tit <i>Cyanistes caeruleus</i>
C.	Carion Crow <i>Corvus corone</i>
FF	Fieldfare <i>Turdus pilaris</i>
G.	Green Woodpecker <i>Picus viridis</i>
GO	Goldfinch <i>Carduelis carduelis</i>
GT	Great Tit <i>Parus major</i>
J.	Jay <i>Garrulus glandarius</i>
JD	Jackdaw <i>Corvus monedula</i>
PH	Pheasant <i>Phasianus colchicus</i>
PW	Pied Wagtail <i>Monticola alba</i>
R.	Robin <i>Erithacus rubecula</i>
RB	Reed Bunting <i>Emberiza schoeniclus</i>
RE	Redwing <i>Turdus iliacus</i>
S.	Skylark <i>Alauda arvensis</i>
SD	Stock Dove <i>Columba oena</i>
ST	Song Thrush <i>Turdus philomelos</i>
WP	Wood Pigeon <i>Columba palumbus</i>
WR	Wren <i>Troglodytes troglodytes</i>
Y.	Yellowhammer <i>Emberiza citrinella</i>

KEY:	
	SITE BOUNDARY
	TRANSECT ROUTE
	BIRD SPECIES
	BIRD CALLING
	BIRD SINGING
	NUMBER OF BIRDS
	BIRD PERCHED, THEN FLYING AWAY
	BIRD FLYING OVER
	BIRD FLYING, THEN LANDING



ECOLOGY SOLUTIONS
LANDSCAPE, MITIGATION & BIODIVERSITY
A PERKINS LOGG COMPANY

Cokerach Estate
Barway | Royston
Hertfordshire | SG8 8DL
info@ecologysolutions.co.uk
www.ecologysolutions.co.uk

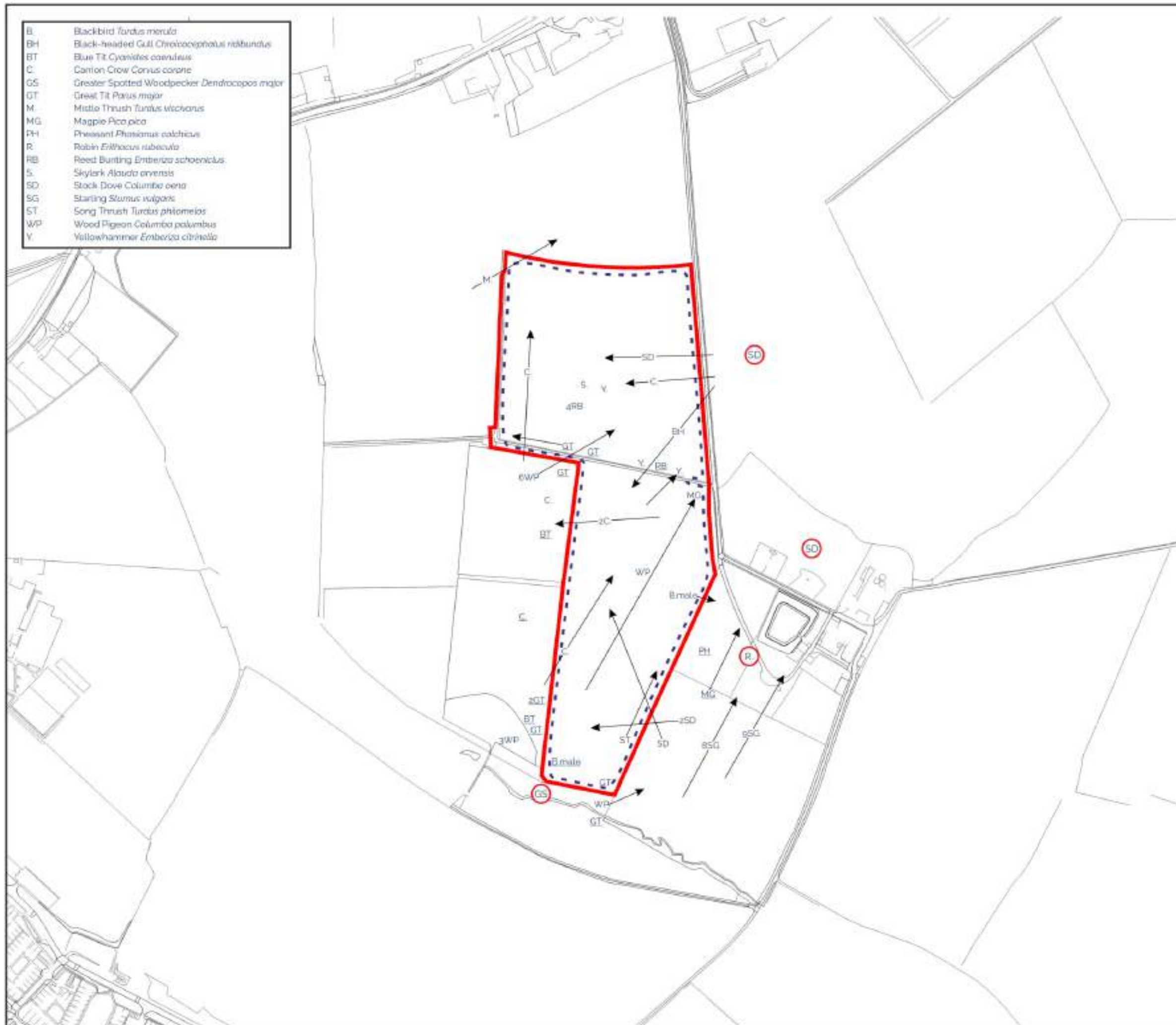
11409: PARCELS A3 AND A5, GREAT WILSEY PARK, HAVERHILL	
PLAN ECO6d: WINTERING BIRD SURVEY RESULTS 29.01.25	Rev: A May 2025

PLAN ECO6e

Wintering Bird Survey Results 10.02.25

B.	Blackbird <i>Turdus merula</i>
BH	Black-headed Gull <i>Chroicocephalus ridibundus</i>
BT	Blue Tit <i>Cyanistes caeruleus</i>
C.	Common Crow <i>Corvus corone</i>
GS	Greater Spotted Woodpecker <i>Dendrocopos major</i>
GT	Great Tit <i>Parus major</i>
M	Mistle Thrush <i>Turdus viscivorus</i>
MG	Maggie Pica <i>Pica pica</i>
PH	Phoebe <i>Phoenicurus phoenicurus</i>
R.	Robin <i>Erithacus rubecula</i>
RB	Reed Bunting <i>Emberiza schoeniclus</i>
S.	Skylark <i>Alauda arvensis</i>
SD	Stock Dove <i>Columba oena</i>
SG	Starling <i>Sturnus vulgaris</i>
ST	Song Thrush <i>Turdus philomelos</i>
WP	Wood Pigeon <i>Columba palumbus</i>
Y.	Yellowhammer <i>Emberiza citrinella</i>

	SITE BOUNDARY
	TRANSECT ROUTE
	BIRD SPECIES
	BIRD CALLING
	BIRD SINGING
	NUMBER OF BIRDS
	BIRD PERCHED, THEN FLYING AWAY
	BIRD FLYING OVER
	BIRD FLYING, THEN LANDING
	MALE BIRD



ECOLOGY SOLUTIONS
LANDSCAPE, MITIGATION & BIODIVERSITY
A PERKINS LOGG COMPANY

Cokerach Estate
Barway | Royston
Hertfordshire | SG8 8DL
info@ecologysolutions.co.uk
www.ecologysolutions.co.uk

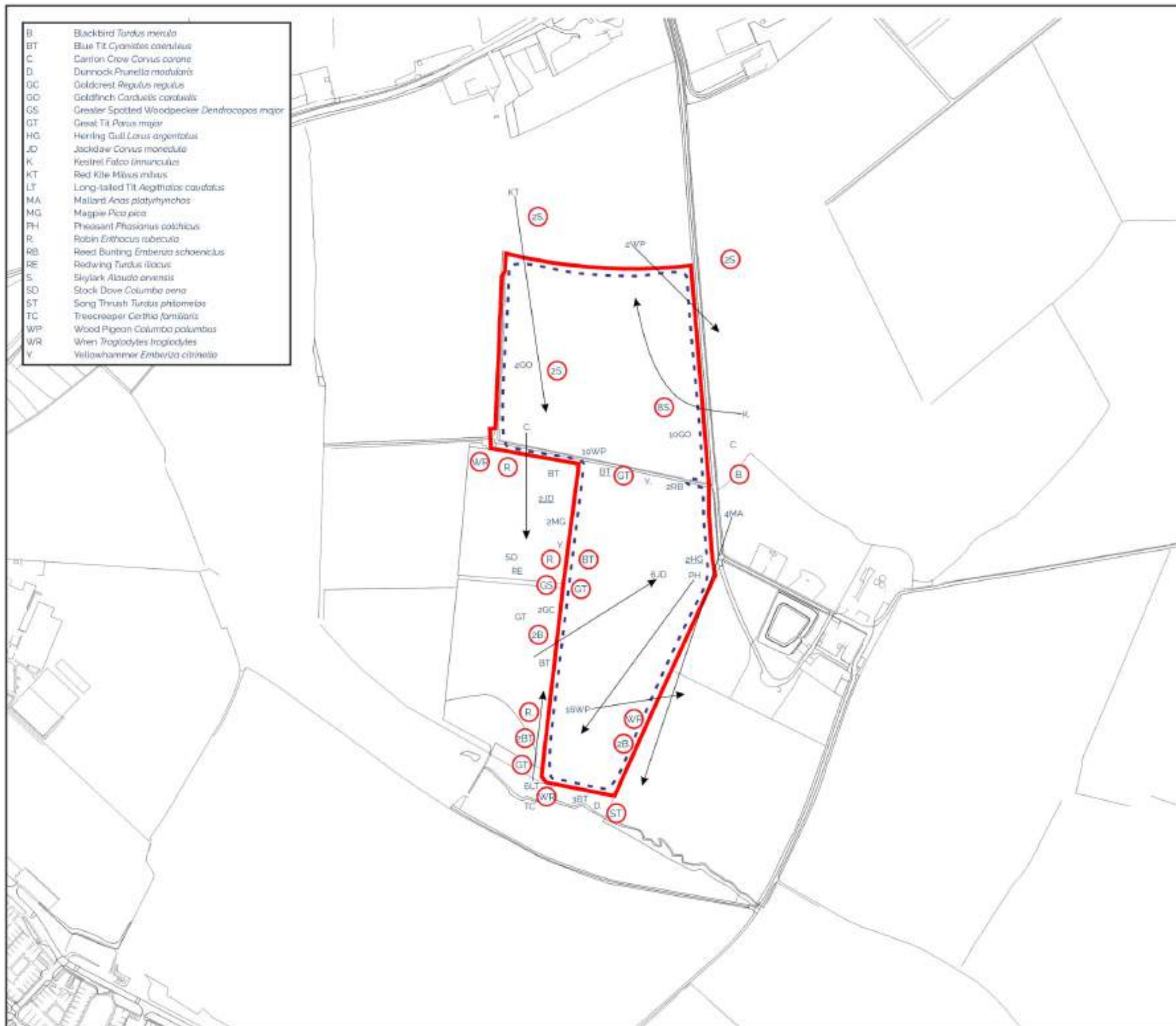
11409: PARCELS A3 AND A5, GREAT WILSEY PARK, HAVERHILL	
PLAN ECO6e: WINTERING BIRD SURVEY RESULTS 10.02.25	Rev: A May 2025

PLAN ECO6f

Wintering Bird Survey Results 26.02.25

B.	Blackbird <i>Turdus merula</i>
BT	Blue Tit <i>Cyanistes caeruleus</i>
C	Common Crow <i>Corvus corone</i>
D.	Dunnock <i>Prunella modularis</i>
GC	Goldcrest <i>Regulus regulus</i>
GO	Goldfinch <i>Carduelis carduelis</i>
GS	Greater Spotted Woodpecker <i>Dendrocoptes major</i>
GT	Great Tit <i>Parus major</i>
HG	Herring Gull <i>Larus argentatus</i>
JD	Jackdaw <i>Corvus monedula</i>
K	Kestrel <i>Falco tinnunculus</i>
KT	Red Kite <i>Milvus milvus</i>
LT	Long-tailed Tit <i>Aegithalos caudatus</i>
MA	Mallard Anas <i>platyrhynchos</i>
MG	Maggie Pica <i>pica</i>
PH	Pheasant <i>Phasianus colchicus</i>
R	Robin <i>Erithacus rubecula</i>
RB	Reed Bunting <i>Emberiza schoeniclus</i>
RE	Redwing <i>Turdus iliacus</i>
S	Siskin <i>Alauda arvensis</i>
SD	Stock Dove <i>Columba oena</i>
ST	Song Thrush <i>Turdus philomelos</i>
TC	Treecreeper <i>Certhia familiaris</i>
WP	Wood Pigeon <i>Columba palumbus</i>
WR	Wren <i>Troglodytes troglodytes</i>
V	Yellowhammer <i>Emberiza citrinella</i>

	SITE BOUNDARY
	TRANSECT ROUTE
	BIRD SPECIES
	BIRD CALLING
	BIRD SINGING
	NUMBER OF BIRDS
	BIRD PERCHED, THEN FLYING AWAY
	BIRD FLYING, THEN LANDING



PLAN ECO7a

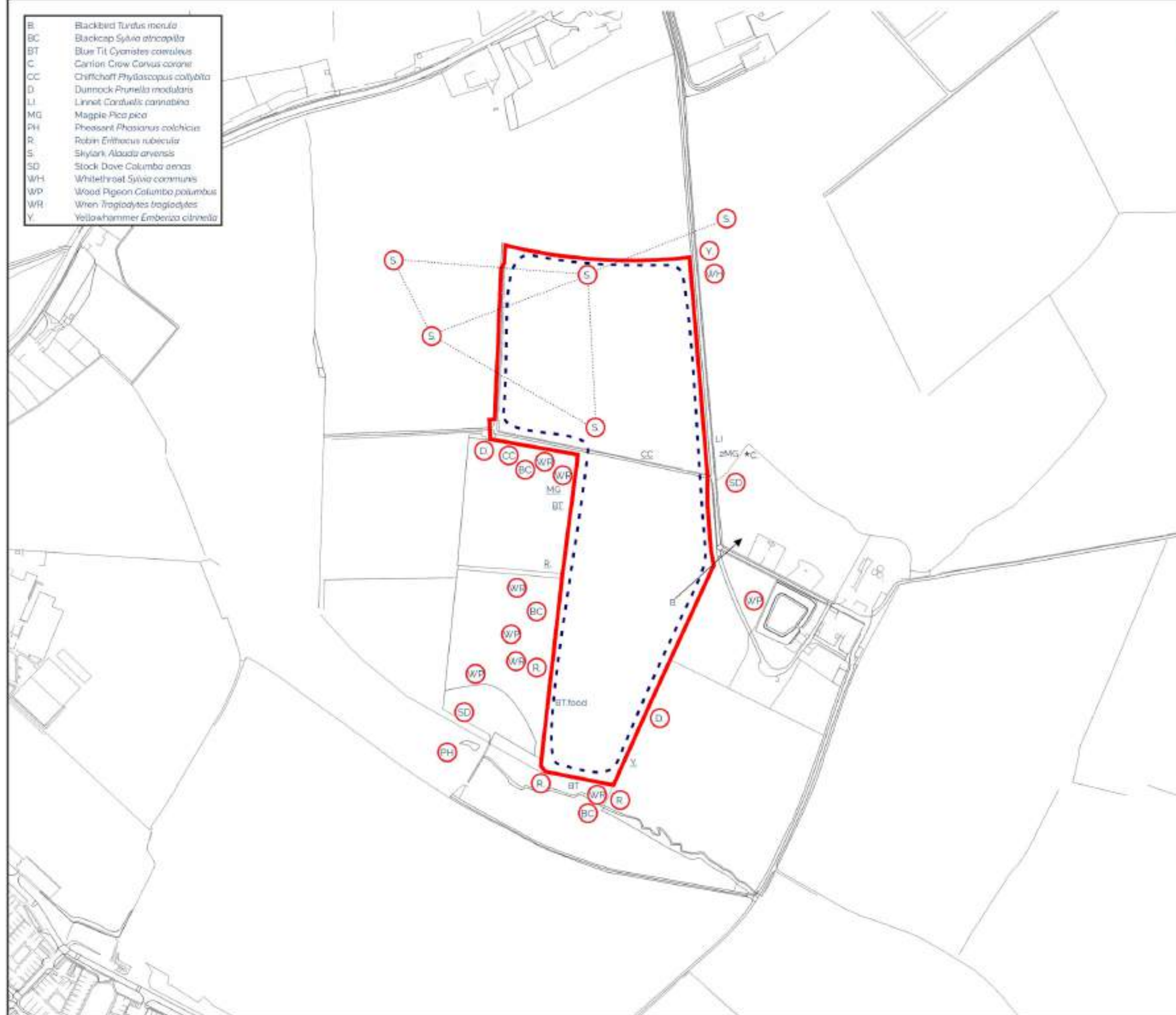
Breeding Bird Survey Results 19.04.23

PLAN ECO7b

Breeding Bird Survey Results 24.05.23

B	Blackbird <i>Turdus merula</i>
BC	Blackcap <i>Sylvia atricapilla</i>
BT	Blue Tit <i>Cyanistes caeruleus</i>
C	Canon Crow <i>Corvus corax</i>
CC	Chiffchaff <i>Phylloscopus collybita</i>
D	Dunrook <i>Prunella modularis</i>
LI	Linnet <i>Carduelis cannabina</i>
MG	Maggie <i>Pica pica</i>
PH	Pheasant <i>Phasianus colchicus</i>
R	Robin <i>Erithacus rubecula</i>
S	Skylark <i>Alauda arvensis</i>
SD	Stock Dove <i>Columba oenas</i>
WH	Whitethroat <i>Sylvia communis</i>
WP	Wood Pigeon <i>Columba palumbus</i>
WR	Wren <i>Troglodytes troglodytes</i>
Y	Yellowhammer <i>Emberiza citrinella</i>

	SITE BOUNDARY
	TRANSECT ROUTE
	BIRD SPECIES
	BIRD CALLING
	BIRD SINGING
	NUMBER OF BIRDS
	BIRD PERCHED, THEN FLYING AWAY
	PROBABLY THE SAME BIRD
	BIRD FEEDING
	BIRD NEST



Scale
100m

ECOLOGY SOLUTIONS
LANDSCAPE, MITIGATION & BIODIVERSITY
A PERENA GROUP COMPANY

Cokerach Estate
Barkway | Royston
Hertfordshire | SG8 8DL
info@ecology-solutions.co.uk
www.ecology-solutions.co.uk

11409: PARCELS A3 AND A5,
GREAT WILSEY PARK, HAVERHILL

PLAN ECO7b:
BREEDING BIRD SURVEY
RESULTS 24.05.23

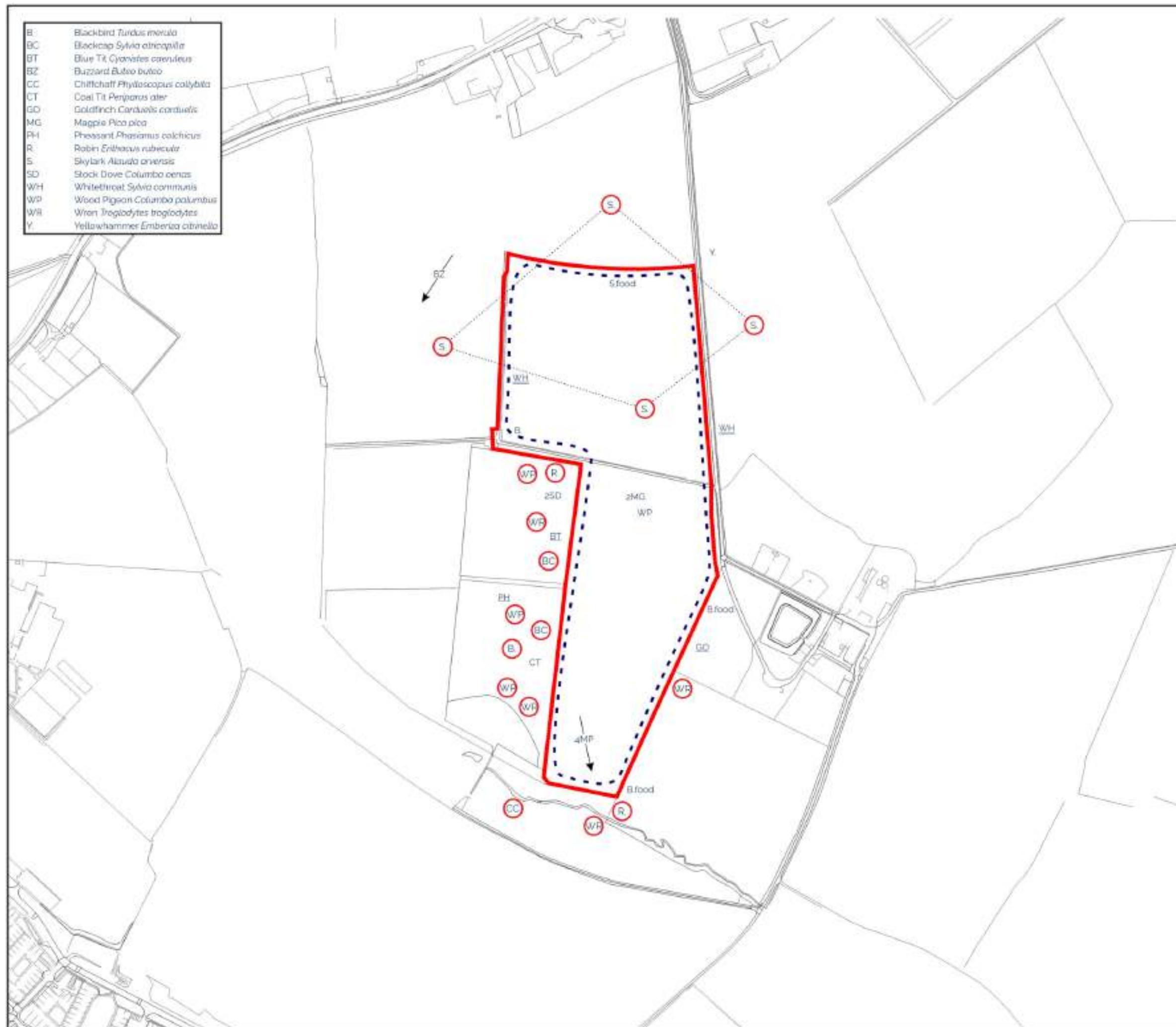
Rev: B
May 2025

PLAN ECO7c

Breeding Bird Survey Results 19.06.23

B	Blackbird <i>Turdus merula</i>
BC	Blackcap <i>Sylvia atricapilla</i>
BT	Blue Tit <i>Cyanistes caeruleus</i>
BZ	Buzzard <i>Buteo buteo</i>
CC	Chiffchaff <i>Phylloscopus collybita</i>
CT	Coal Tit <i>Parus ater</i>
GO	Goldfinch <i>Carduelis carduelis</i>
MG	Maggie <i>Pica pica</i>
PH	Pheasant <i>Phasianus colchicus</i>
R	Robin <i>Erithacus rubecula</i>
S	Skyline <i>Alauda arvensis</i>
SD	Stock Dove <i>Columba oenas</i>
WH	White-throat <i>Sylvia communis</i>
WP	Wood Pigeon <i>Columba palumbus</i>
WR	Wren <i>Troglodytes troglodytes</i>
Y	Yellowhammer <i>Emberiza citrinella</i>

	SITE BOUNDARY
	TRANSECT ROUTE
	BIRD SPECIES
	BIRD CALLING
	BIRD SINGING
	BIRD SHOWING AGITATION
	NUMBER OF BIRDS
	BIRD FLYING OVER
	PROBABLY THE SAME BIRD
	BIRD FEEDING



Scale
100m



Cokerach Estate
Barkway | Royston
Hertfordshire | SG8 8DL
info@ecologysolutions.co.uk
www.ecologysolutions.co.uk

11409: PARCELS A3 AND A5,
GREAT WILSEY PARK, HAVERHILL

PLAN ECO7c:
BREEDING BIRD SURVEY
RESULTS 19.06.23

Rev: B
May 2025

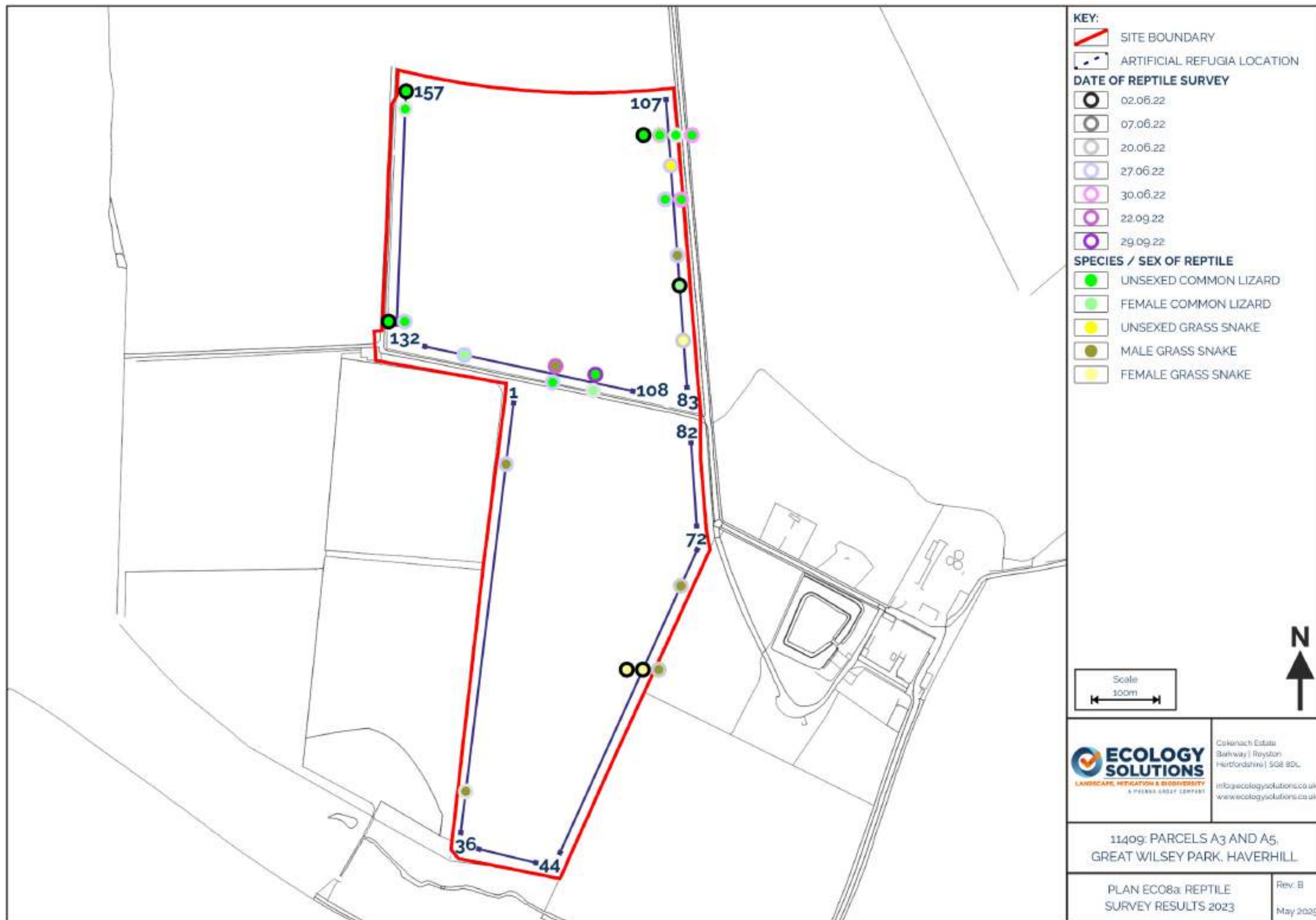
PLAN ECO7d

Breeding Bird Survey Results 08.04.25



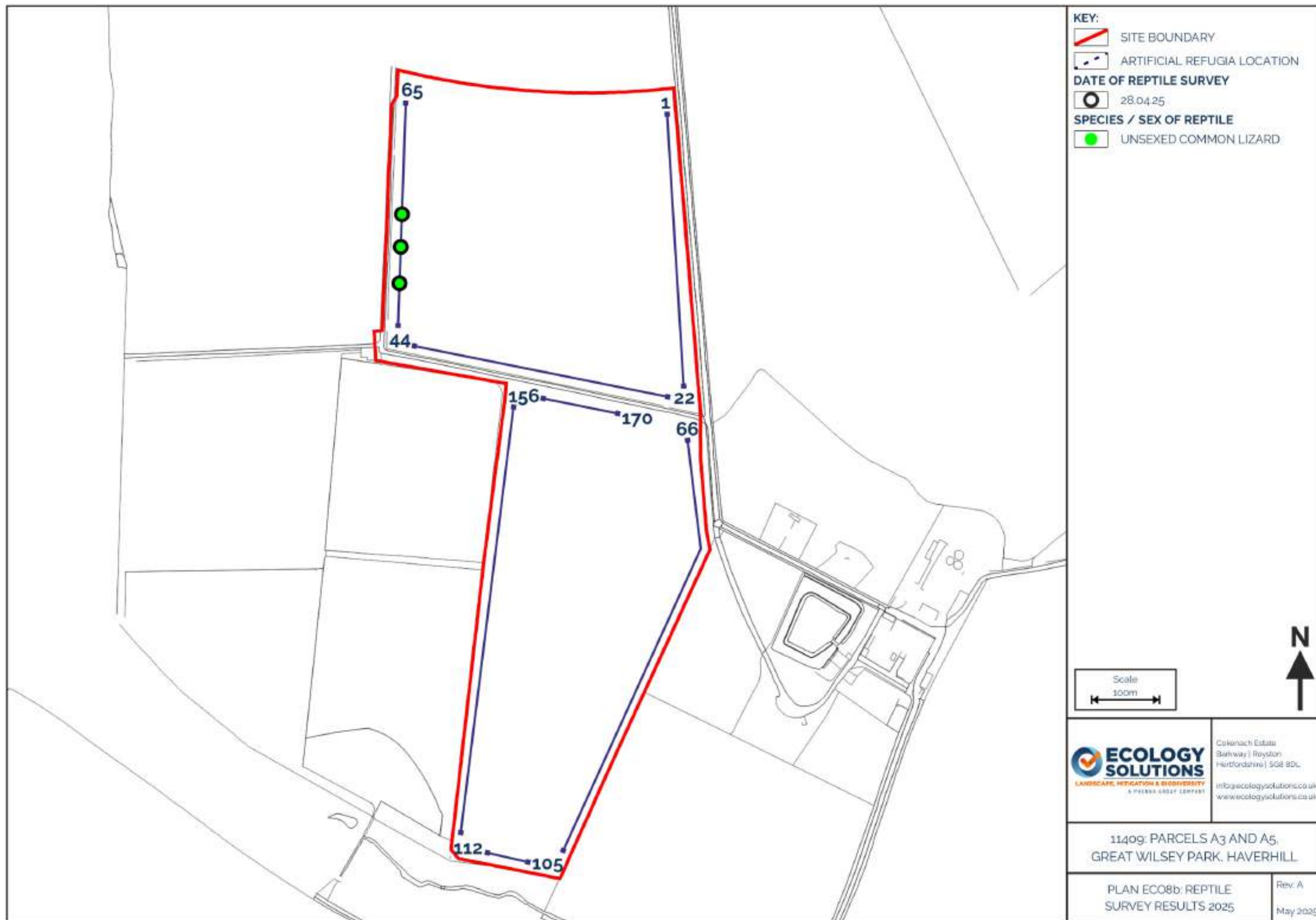
PLAN ECO8a

Reptile Survey Results 2023



PLAN ECO8b

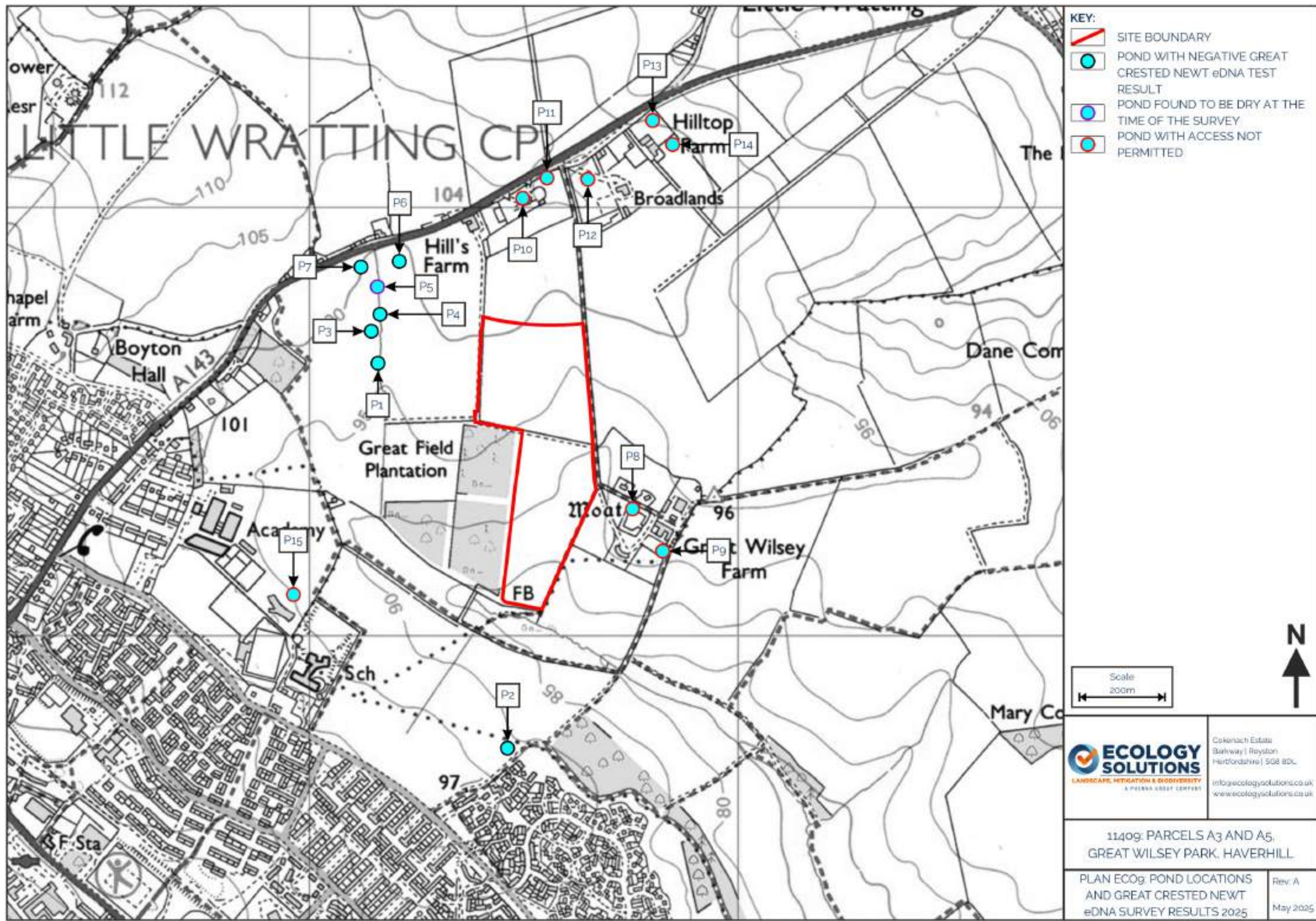
Reptile Survey Results 2025



PLAN ECO₉

Pond Locations and Great Crested Newt eDNA
Survey Results 2025

Based upon the Ordnance Survey map with permission of the Controller of His Majesty's Stationery Office. © Crown Copyright. Ecology Solutions Ltd. Cokerach Estate, Parkway, Royston, Hertfordshire, SG8 8DL. 100044628



Photographs

PHOTOGRAPH 1: Cereal crops (Parcel A5)



PHOTOGRAPH 2: Other neutral grassland



PHOTOGRAPH 3: Bramble scrub



PHOTOGRAPH 4: Tall forbs



PHOTOGRAPH 5: Bare ground



PHOTOGRAPH 6: Hedgerow H2



PHOTOGRAPH 5: Ditch D2



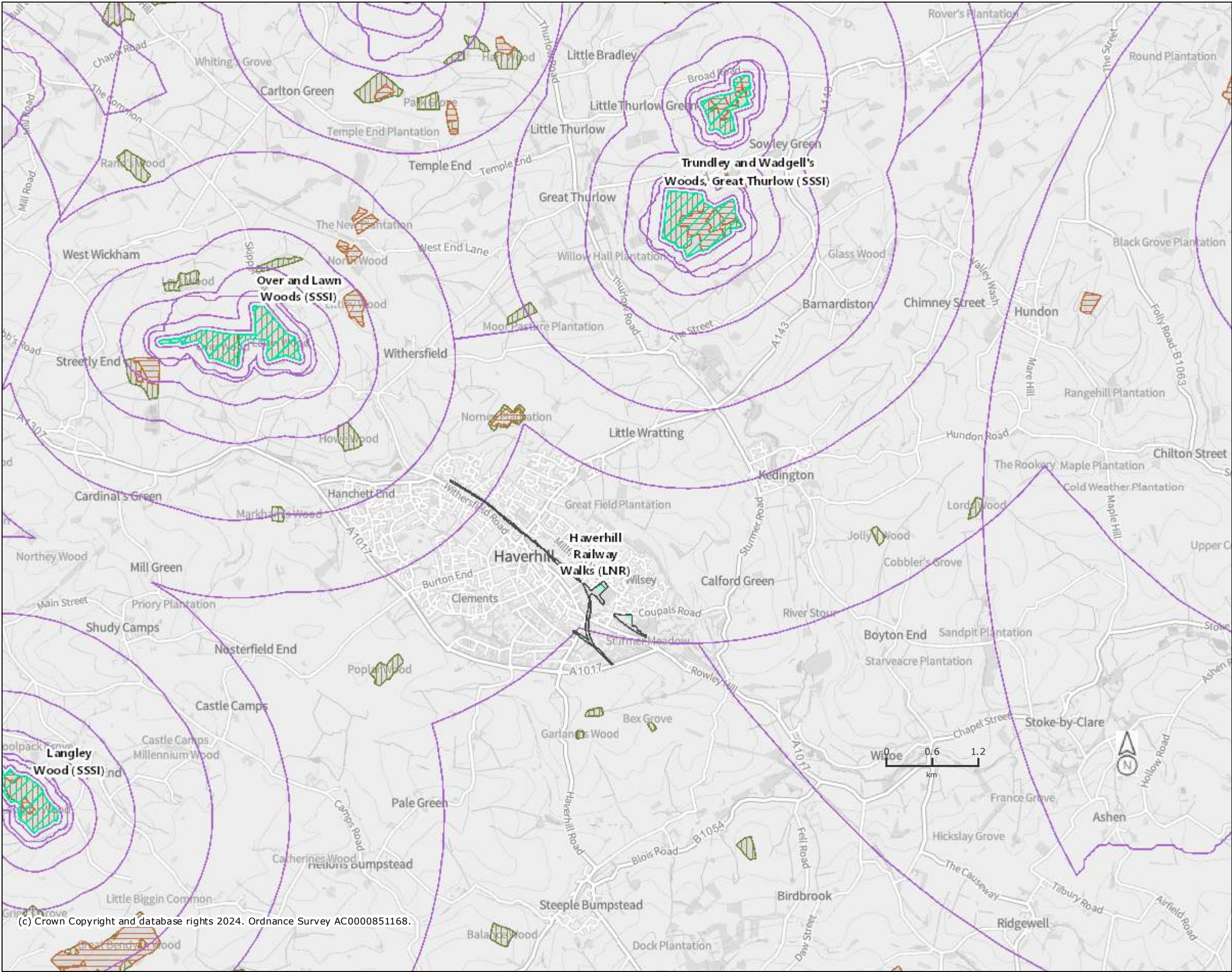
PHOTOGRAPH 6: Tree BP1



Appendices

APPENDIX 1

Information downloaded from Multi-Agency
Geographic Information for the Countryside (MAGIC)



(c) Crown Copyright and database rights 2024. Ordnance Survey AC0000851168.

Legend

- Local Nature Reserves (England)
- National Nature Reserves (England)
- Ramsar Sites (England)
- Proposed Ramsar Sites (England)
- Sites of Special Scientific Interest (England)
- SSSI Impact Risk Zones - for LPAs to determine likely impacts on terrestrial SSSIs and when to consult Natural England
- Special Areas of Conservation (England)
- Possible Special Areas of Conservation (England)
- Special Protection Areas (England)
- Potential Special Protection Areas (England)

Ancient Woodland (England)

- Ancient and Semi-Natural Woodland
- Ancient Replanted Woodland

Projection = OSGB36
xmin = 555700
ymin = 240200
xmax = 581100
ymax = 252700

Map produced by MAGIC on 26 July, 2024.
Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGIC is a snapshot of the information that is being maintained or continually updated by the originating organisation. Please refer to the metadata for details as information may be illustrative or representative rather than definitive at this stage.

APPENDIX 2

Badger Survey and Assessment (Confidential)

APPENDIX 3

Wintering Bird Survey Results

APPENDIX 3: WINTERING BIRD SURVEY RESULTS

Summary of the species, and their respective national legislation and designations, identified across the wintering bird surveys conducted in December 2022, January and February 2023 and January and February 2025. S1 = Schedule 1 of the Wildlife and Countryside Act 1981 (as amended); S41 = Section 41 of the NERC Act 2006; UKBAP = UK BAP Priority List of Species; R = Red List of Birds of Conservation Concern 5; A = Amber List of Birds of Conservation Concern 5.

BTO Code	Species	Date						National Legislation and Designation
		22.12.22	23.01.23	15.02.23	29.01.25	10.02.25	26.02.25	
B.	Blackbird <i>Turdus merula</i>	X	X	X	X	X	X	
BF	Bullfinch <i>Pyrrhula pyrrhula</i>	X						A, UKBAP, S41
BH	Black-headed Gull <i>Chroicocephalus ridibundus</i>				X	X		A
BT	Blue Tit <i>Cyanistes caeruleus</i>		X	X	X	X	X	
BZ	Buzzard <i>Buteo buteo</i>		X					
C.	Carrion Crow <i>Corvus corone</i>	X	X	X	X	X	X	
D.	Dunnock <i>Prunella modularis</i>	X		X			X	A, S41
FF	Fieldfare <i>Turdus pilaris</i>		X	X	X			R, S1
G.	Green Woodpecker <i>Picus viridis</i>		X	X	X			
GC	Goldcrest <i>Regulus regulus</i>	X					X	
GO	Goldfinch <i>Carduelis carduelis</i>				X		X	
GS	Great Spotted Woodpecker <i>Dendrocopos major</i>			X		X	X	

BTO Code	Species	Date						National Legislation and Designation
		22.12. 22	23.01. 23	15.02. 23	29.01. 25	10.02. 25	26.02. 25	
GT	Great Tit <i>Parus major</i>	X	X	X	X	X	X	
HG	Herring Gull <i>Larus argentatus</i>						X	R, UKBAP, S41
J.	Jay <i>Garrulus glandarius</i>	X	X	X	X			
JD	Jackdaw <i>Corvus monedula</i>			X	X		X	
K.	Kestrel <i>Falco tinnunculus</i>		X	X			X	A
KT	Red Kite <i>Milvus milvus</i>			X			X	S1
LT	Long-tailed Tit <i>Aegithalos caudatus</i>	X		X			X	
M.	Mistle Thrush <i>Turdus viscivorus</i>					X		R
MA	Mallard <i>Anas platyrhynchos</i>	X					X	A
MG	Magpie <i>Pica pica</i>	X	X	X		X	X	
MP	Meadow Pipit <i>Anthus pratensis</i>	X		X				A
P.	Grey Partridge <i>Perdix perdix</i>			X				R, UKBAP, S41
PH	Pheasant <i>Phasianus colchicus</i>				X	X	X	
PW	Pied Wagtail <i>Motacilla alba</i>				X			
R.	Robin <i>Erithacus rubecula</i>	X	X	X	X	X	X	
RB	Reed Bunting <i>Emberiza schoeniclus</i>	X		X	X	X	X	A, UKBAP, S41

BTO Code	Species	Date						National Legislation and Designation
		22.12. 22	23.01. 23	15.02. 23	29.01. 25	10.02. 25	26.02. 25	
RE	Redwing <i>Turdus iliacus</i>		X	X	X		X	A, S1
S.	Skylark <i>Alauda arvensis</i>			X	X	X	X	R, UKBAP, S41
SD	Stock Dove <i>Columba oenas</i>				X	X	X	A
SG	Starling <i>Sturnus vulgaris</i>					X		R, UKBAP, S41
SH	Sparrowhawk <i>Accipiter nisus</i>		X					A
ST	Song Thrush <i>Turdus philomelos</i>	X	X	X	X	X	X	A, UKBAP, S41
TC	Treecreeper <i>Certhia familiaris</i>						X	
WK	Woodcock <i>Scolopax rusticola</i>		X					R
WP	Wood Pigeon <i>Columba palumbus</i>				X	X	X	A
WR	Wren <i>Troglodytes troglodytes</i>	X	X	X	X		X	A
Y.	Yellowhammer <i>Emberiza citrinella</i>			X	X	X	X	R, UKBAP, S41

APPENDIX 4

Breeding Bird Survey Results

APPENDIX 4: BREEDING BIRD SURVEY RESULTS

Summary of the species, and their respective national legislation and designations, identified across the breeding bird surveys conducted in April, May and June 2023 and April 2025. S1 = Schedule 1 of the Wildlife and Countryside Act 1981 (as amended); S41 = Section 41 of the NERC Act 2006; UKBAP = UK BAP Priority List of Species; R = Red List of Birds of Conservation Concern 5; A = Amber List of Birds of Conservation Concern 5.

BTO Code	Species	Date				National Legislation and Designation
		19.04.23	24.05.23	19.06.23	08.04.25	
B.	Blackbird <i>Turdus merula</i>	X	X	X	X	
BC	Blackcap <i>Sylvia atricapilla</i>	X	X	X	X	
BT	Blue Tit <i>Cyanistes caeruleus</i>	X	X	X	X	
BZ	Buzzard <i>Buteo buteo</i>			X		
C.	Carrion Crow <i>Corvus corone</i>	X	X		X	
CC	Chiffchaff <i>Phylloscopus collybita</i>	X	X	X	X	
CT	Coal Tit <i>Periparus ater</i>			X		
D.	Dunnock <i>Prunella modularis</i>	X	X		X	A, S41
G.	Green Woodpecker <i>Picus viridis</i>	X				
GO	Goldfinch <i>Carduelis carduelis</i>			X		
GS	Great Spotted Woodpecker <i>Dendrocopos major</i>				X	
GT	Great Tit <i>Parus major</i>	X			X	
HG	Herring Gull <i>Larus argentatus</i>				X	R, UKBAP, S41

BTO Code	Species	Date				National Legislation and Designation
		19.04.23	24.05.23	19.06.23	08.04.25	
J.	Jay <i>Garrulus glandarius</i>	X				
JD	Jackdaw <i>Corvus monedula</i>				X	
LI	Linnet <i>Carduelis cannabina</i>		X		X	R, UKBAP, S41
LT	Long-tailed Tit <i>Aegithalos caudatus</i>	X				
MG	Magpie <i>Pica pica</i>	X	X	X	X	
MP	Meadow Pipit <i>Anthus pratensis</i>	X				A
PH	Pheasant <i>Phasianus colchicus</i>	X	X	X	X	
R.	Robin <i>Erithacus rubecula</i>	X	X	X	X	
RB	Reed Bunting <i>Emberiza schoeniclus</i>	X			X	A, UKBAP, S41
S.	Skylark <i>Alauda arvensis</i>	X	X	X	X	R, UKBAP, S41
SD	Stock Dove <i>Columba oenas</i>	X	X	X	X	A
WH	Whitethroat <i>Sylvia communis</i>		X	X		A
WP	Wood Pigeon <i>Columba palumbus</i>		X	X	X	A
WR	Wren <i>Troglodytes troglodytes</i>	X	X	X	X	A
Y.	Yellowhammer <i>Emberiza citrinella</i>	X	X	X	X	R, UKBAP, S41

APPENDIX 5

Hedgehog Gateways

Hedgehog Gateways

Hedgehog gateways comprise a 130mm x 130mm cut out into the base of a fence panel to create links between residential gardens and the surrounding landscape.

This will facilitate the dispersal of Hedgehogs and other small animals, enhancing the permeability of the new development for wildlife.

Signposting the features seeks to inform residents and aid the features retention and function.

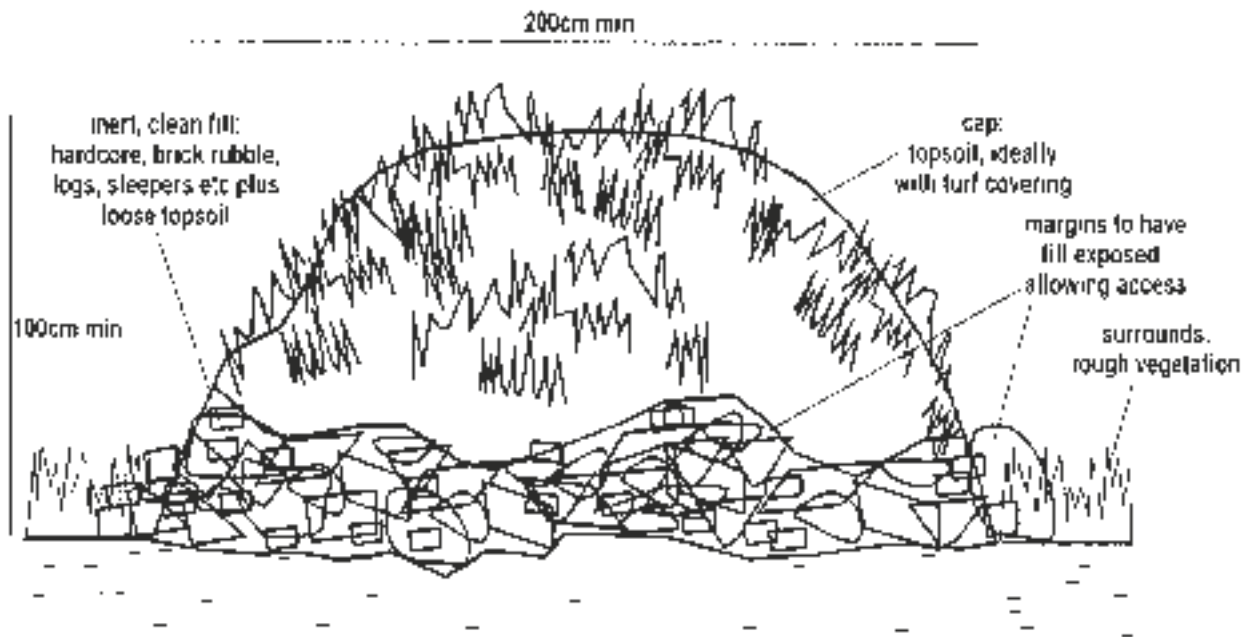


APPENDIX 6

Reptile Hibernacula

Reptile Hibernacula

A good reptile hibernacula comprises a mixture of rubble, wood and soil and is situated within a vegetated area of the site. This will provide winter and summer refuge for reptiles, offering cover for them to disappear into if disturbed and the option to move into the sun or shade at any part of the day. If the hibernacula is positioned on dry soil there should be a dug chamber of at least 50cm depth to provide subterranean shelter. On wetter soil, materials can be arranged on the surface.



APPENDIX 7

Great Crested Newt eDNA Report from SureScreen
Scientifics

Folio No: 951-2025
Purchase Order: 11409/25/4/25
Contact: Ecology Solutions Ltd
Issue Date: 08.05.2025
Received Date: 30.04.2025

GCN Report

Technical Report



SureScreen Scientifics

Folio No: 951-2025
Purchase Order: 11409/25/4/25
Contact: Ecology Solutions Ltd
Issue Date: 08.05.2025
Received Date: 30.04.2025



GCN eDNA Analysis

Summary

When great crested newts (GCN), *Triturus cristatus*, inhabit a pond, they continuously release small amounts of their DNA into the environment. By collecting and analyzing water samples, we can detect these small traces of environmental DNA (eDNA) to confirm GCN habitation or establish GCN absence.

Results

Lab ID	Site Name	OS Reference	Degradation Check	Inhibition Check	Result	Positive Replicates
R25 0105	Haverhill - P7	Shudders.mushroom.b adminton	Pass	Pass	Negative	0/12
R25 0108	Haverhill - P2	Flight.sling.gladiator	Pass	Pass	Negative	0/12
R25 0109	Haverhill - P3	lbowing.totals.overt	Pass	Pass	Negative	0/12
R25 0113	Haverhill - P6	Factually.rinses.averts	Pass	Pass	Negative	0/12
R25 0116	Haverhill - P1	Ramming.fearfully.dust bin	Pass	Pass	Negative	0/12
R25 0127	Haverhill - P4	Litters.scooped.tolerat es	Pass	Pass	Negative	0/12

Matters affecting result: none

Reported by: Amy Bermudez

Approved by: Consuela Sopronyi



Methodology

The samples detailed above have been analyzed for the presence of GCN eDNA following the protocol stated in DEFRA WC1067 'Analytical and methodological development for improved surveillance of the Great Crested Newt, Appendix 5.' (Biggs et al. 2014). Each of the 6 sub-sample tubes are first centrifuged and pooled together into a single sample tube which then undergoes DNA extraction. The extracted sample is then analyzed using real-time PCR (qPCR), which uses species-specific molecular markers to amplify GCN DNA within a sample. These markers are unique to GCN DNA, meaning that there should be no detection of closely related species.

If GCN DNA is present, the DNA is amplified up to a detectable level, resulting in positive species detection. If GCN DNA is not present then amplification does not occur, and a negative result is recorded. Analysis of eDNA requires attention to detail to prevent the risk of contamination. True positive controls, negative controls, and spiked synthetic DNA are included in every analysis and these have to be correct before any result is declared and reported. Stages of the DNA analysis are also conducted in different buildings at our premises for added analytical security.

SureScreen Scientifics Ltd is ISO9001 accredited and participates in Natural England's proficiency testing scheme for GCN eDNA testing.

Interpretation of Results

Sample Integrity Check:

When samples are received in the laboratory, they are inspected for any tube leakage, suitability of sample (not too much mud or weed etc.) and absence of any factors that could potentially lead to inconclusive results. Any samples which fail this test are rejected and eliminated before analysis.

Degradation Check:

Pass/Fail. Analysis of the spiked DNA marker to see if there has been degradation of the kit or sample between the date it was made to the date of analysis. Degradation of the spiked DNA marker may lead indicate a risk of false negative results.

Inhibition Check:

Pass/Fail. The presence of inhibitors within a sample is assessed using a DNA marker. If inhibition is detected, samples are purified and re-analyzed. Inhibitors cannot always be removed, if the inhibition check fails, the sample should be re-collected.

Result:

Presence of GCN eDNA (Positive/Negative/Inconclusive)

Positive: GCN DNA was identified within the sample, indicative of GCN presence within the sampling location at the time the sample was taken or within the recent past at the sampling location.

Positive Replicates: Number of positive qPCR replicates out of a series of 12. If one or more of these are found to be positive the pond is declared positive for GCN presence. It may be assumed that small fractions of positive analyses suggest low level presence, but this cannot currently be used for population studies. In accordance with the WC1067 Natural England protocol, even a score of 1/12 is declared positive. 0/12 indicates negative GCN presence.

Negative: GCN eDNA was not detected or is below the threshold detection level and the test result should be considered as evidence of GCN absence, however, does not exclude the potential for GCN presence below the limit of detection.

Inconclusive: Controls indicate inhibition or degradation of the sample, resulting in the inability to provide conclusive evidence for GCN presence or absence.





info@ecologysolutions.co.uk | www.ecologysolutions.co.uk

Farncombe House | Farncombe | Broadway | Worcestershire | WR12 7LJ

Cokenach Estate | Barkway | Royston | Hertfordshire | SG8 8DL