

BAT TRANSECT AND AUTOMATED SURVEY REPORT

LAND EAST OF STOKE ROAD AND NORTH OF NORMANDY
WAY (A47), HINCKLEY, LEICESTERSHIRE, NR LE10 1YA

ON BEHALF OF

MR & MRS ADCOCK C/O RICHBOROUGH ESTATES

REFERENCE: ZEL_203
DATE: NOVEMBER 2022
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Report Reference	ZEL_203
Client	Mr & Mrs Adcock c/o Richborough Estates Limited
Site	Land east of Stoke Road and north Of Normandy Way (A47), Hinckley, Leicestershire, Nr LE10 1YA
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V1	Bat Survey Report	E. Seaton	15 November 2022

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EXECUTIVE SUMMARY

- A Preliminary Ecological Appraisal of the land east of Stoke Road and north of Normandy Way (A47), Hinckley, Leicestershire was undertaken on 23 November and 7 December 2021 (see Zebra Ecology, 2021). This survey confirmed the site to hold low suitability for commuting and foraging bats (with reference to Collins, 2016). Seasonal surveys were therefore undertaken to confirm the levels of bat activity at the site.
- The site was divided into two transect routes, with surveys completed on 30 May 2022, 27 July 2022 and 20 September 2022. These surveys were supported by four static automated bat detectors (Song Metre Mini Bat) that were left on site for five consecutive nights between 30 May – 04 June 2022, 27 July – 01 August 2022 and 20-25 September 2022.
- Occasional bat activity was recorded during the walked transect surveys from at least five species: common pipistrelle, soprano pipistrelle, brown long-eared bat and big bat. *Myotis* sp. was also detected during automated surveys. The majority of activity recorded was from common pipistrelle (>79% across automated surveys).
- The site has been assessed to be of 'district, parish or local importance' for commuting and foraging common pipistrelle, soprano pipistrelle, brown long-eared bat and *Myotis* sp. and county importance for commuting / foraging big bat sp. (with reference to Wray et al., 2000).
- All boundary hedgerows are to be retained and protected as part of the proposals. It is understood that approximately of 760m of flailed, dividing hedgerows will be removed to facilitate the proposals.
- A scheme of mitigation, compensation and enhancement will be delivered via a future Ecological Mitigation & Enhancement Strategy and Landscape and Ecological Mitigation & Management Plan (LEMP). The following will form key elements of these plan:
 - A sensitive scheme of night-lighting to specifically minimise nocturnal illumination of retained wildlife habitats.
 - Retention and protection of mature deciduous trees and hedgerows (excluding to facilitate access) within future development and landscaping proposals to retain connectivity within the wider landscape. All retained trees and hedgerows to be afforded adequate protection in line with 'BS5837: 2012 Trees in relation to design, demolition and construction'.
 - Retention and buffering of boundary hedgerows to ensure bat populations are not isolated from the wider countryside.
 - Bolstering of existing hedgerows and creation of additional native hedgerows planted in a two-staggered row to improve connectivity across

the site. Additional tree planting along existing hedgerows to also improve their capacity to facilitate bat dispersal across the site.

- Specific management of retained habitat areas (e.g. mature trees, hedgerows, field margins) to maximise wildlife value.
 - Incorporation of a new habitat areas and five new attenuation features along the eastern boundary, northern boundary and within the field to the west of Stoke Road will greatly improve available foraging resources in this area and compensate for development impacts.
 - Planting of 288 small trees and 240 small (fruit) trees. Total of 4.7km of native species-rich hedgerow with trees proposed.
 - Species-rich (minimum 9 species per m²) wildflower meadow areas / strips to be created across the site.
 - Inclusion of a variety of flowering plants with a range of colours, fragrances and shapes within the landscape planting to attract a diverse food source for foraging bats. Further advice and guidance of bat-friendly gardening has been provided by the Bat Conservation Trust (2015).
 - New roosting provision in the form of crevice and hollow boxes to increase roosting opportunity post-development. Incorporation of bat ridge and slope access tiles within 20% of proposed units.
 - Management prescriptions to ensure the implementation of the above mitigation, compensation and enhancement measures, ongoing ecological maintenance of retained habitats and aftercare of all important ecological features.
- Provided that an appropriate scheme of mitigation, compensation and enhancement measures is provided, it will be possible to maintain the '*favourable conservation status*' of the local bat population.

1.0 INTRODUCTION

Site Location and Summary

- 1.1 Zebra Ecology Ltd were commissioned by Richborough Estates Ltd. to undertake nocturnal bat activity surveys of the Land at Hinckley North, Normandy Way, Leicestershire, LE10 1YA (centred on Ordnance Survey grid reference SP 421 957).
- 1.1 The site is approximately 25,4ha in area and comprises one arable field and five cattle-grazed fields surrounded by a mix of species-rich and species-poor hedgerows. The application site boundary is shown in Figure 1:



Figure 1: showing site location

Previous Survey Work

- 1.2 The site has previously subject to a suite of surveys by Zebra Ecology between 2021-2022 including a Preliminary Ecological Appraisal and Ground-based Tree Assessment (see Zebra Ecology 2022 for full details).

Survey Objectives

- 1.3 The objectives of the survey were to:
- Carry out nocturnal bat activity surveys based on the previously identified suitability of the on-site habitats for commuting and foraging bats in line with best practice guidelines (Collins, 2016; Mitchell Jones, 2016);
 - Where bats are present, identify the species involved and where possible the levels and distribution of activity;
 - Identify to identify appropriate avoidance, mitigation, compensation and enhancement measures as required to demonstrate compliance with the 'mitigation

hierarchy' and requirements of local and National biodiversity policies (e.g. S.40 of the NERC Act 2006, NPPF etc).

2.0 METHODOLOGY

Desk Study

- 2.1 A third-party data search was undertaken to attain biological records from Leicestershire and Rutland Environment Records Centre (LRERC) during November 2021 to identify any bat records within a 2km radius of SP 420 956.

Transect Surveys

- 2.2 The nocturnal surveys were completed by licensed and/or appropriately experienced ecologists using a range of full spectrum bat detectors. Two transect routes were designed to ensure that all habitats with the potential to be used by commuting and foraging bats were adequately covered. All bat activity observed during the surveys was recorded and the time and species noted. The weather conditions were also recorded for each visit. A plan of the transect route was used by each surveyor to show bat flight lines. Dusk emergence surveys commenced at sunset and continued for 120 minutes. Details of the surveys, timings, surveyors and equipment can be seen in Table 2:

Table 1: Details of Survey Parameters

Date	Weather Conditions	Start / Finish Times	Surveyors & Licence Number (if applicable)	Equipment
30 May 2022	Temperature: 16.5-12.7°C Wind (Beaufort):0 Cloud Cover: 100% Precipitation: some light rain	21:16 – 23:16 (sunset: 21:16)	E. Seaton (2015-15098-CLS-CLS) P. Vincent (2016-22985-CLS-CLS)	Anabat Walkabout x 2
27 July 2022	Temperature: 19°C Wind (Beaufort):0 Cloud Cover: 100% Precipitation: occasional light rain	21:06 – 23:06 (sunset: 21:06)	A. Elliott (2021-49562-CLS-CLS) A. Woodman (2021-50870-CLS-CLS)	Anabat Walkabout x 1 EM Touch 2 Pro x 1
20 September 2022	Temperature: 15°C Wind (Beaufort):0-1 Cloud Cover: 100% Precipitation: none	19:10 – 21:10 (sunset: 19:10)	A. Elliott (2021-49562-CLS-CLS) A. Woodman (2021-50870-CLS-CLS)	Anabat Walkabout x 1 EM Touch 2 Pro x 1

Automated Surveys

- 2.3 Four automated static bat detectors were left on site for five nights between 30 May & 04 June 2022, 27 July & 01 August 2022 and 20 & 25 September 2022. All automated bat detectors deployed were Song Meter Minis (Bat) affording Zero Crossing and Full Spectrum recording. Detectors were located along likely commuting routes or directed towards foraging habitats. Recordings were analysed using AnaLookW software.

Limitations

- 2.4 The detection of activity is biased towards bat species that have louder echolocation calls. Species such as the brown long eared bat *Plecotus auritus* that produce very quiet calls may be under recorded as a result. However, visual cues indicating the presence of quiet calling species were noted to reduce this limitation.
- 2.5 It is not always possible to identify all bats to species level using sound analysis techniques. For example, the calls of *Myotis* species can demonstrate a large number of overlapping parameters making species level identification difficult. In this situation, bats have been identified as *Myotis* sp.

Assessment

- 2.6 The ecological value of bat foraging habitat and commuting corridors was assessed using the system of Wray *et al* (2010) in line with the CIEEM Guidelines for Ecological Impact Assessment (2006). The categorisation of bats in England by distribution and rarity (adapted from Wray *et al.*, 2010) are shown in Tables 2:

Table 2: Rarity of bat species within England

Rarity within range (England)	Species
Rarest (population under 10,000)	Greater horseshoe bat <i>Rhinolophus ferrumequinum</i> Bechstein's bat <i>Myotis bechsteinii</i> Alcathoe's bat <i>Myotis alcathoe</i> Greater mouse-eared bat <i>Myotis myotis</i> Barbastelle <i>Barbastella barbastellus</i> Grey long-eared bat <i>Plecotus austriacus</i>
Rarer (population 10,000 to 100,000)	Lesser horseshoe bat <i>Rhinolophus hipposideros</i> Whiskered bat <i>Myotis mystacinus</i> Brandt's bat <i>Myotis brandtii</i> Daubenton's bat <i>Myotis daubentoniid</i> Natterer's bat <i>Myotis nattereri</i> Leisler's bat <i>Nyctalus leisleri</i> Noctule <i>Nyctalus noctule</i> Serotine <i>Eptesicus serotinus</i>
Common (population over 100,000)	Common pipistrelle <i>Pipistrellus pipistrellus</i> Soprano pipistrelle <i>Pipistrellus pygmaeus</i> Brown long-eared bat <i>Plecotus auritus</i>

Table 3: Method for evaluating importance of commuting / foraging habitat

Species (A)	Number of Bats (B)	Roosts/potential roosts nearby (C)	Type and complexity of linear features (D)	Foraging habitat characteristics (E)
Common (2)	Individual bats (5)	None (1)	Absence of (other) linear features (1)	Industrial or other site without established vegetation (1)
		Small number (3)	Unvegetated fences and large field sizes (2)	Suburban areas or intensive arable land (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)	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)	Well-grown and well-connected hedgerows, small field sizes (4)	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)	Complex network of mature well-established hedgerows, small fields and rivers/streams (5)	Mosaic of pasture, woodlands and wetland areas (5)

Table 4: Level of importance of commuting / foraging habitat

Geographic frame of reference	Score
Not Important	1-10
District, Local or Parish	11-20
County	21-30
Regional	31-40
National / UK	41-50
International	>50

3.0 RESULTS

Desk Study

- 3.1 One hundred and twenty-six records for the following species were returned by the third-party data search: barbastelle *Barbastella barbastellus*, serotine *Eptesicus serotinus*, *Myotis* sp. including Daubenton's *M. daubentonii*, whiskered bat *M. mystacinus*, & Natterer's *M. nattereri*, Leisler's *Nyctalus leisleri*, noctule *Nyctalus noctula*, Nathusius's pipistrelle *Pipistrellus nathusii*, common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, and brown long-eared bat *Plecotus auritus*.
- 3.2 These records included twenty-eight records of bat roosts, for which the site falls within the core sustenance zone, of the following types: *Pipistrelle* sp. unconfirmed roost type (8 records), *Pipistrelle* sp. day roost (1 record), common pipistrelle unconfirmed roost type (1 record), brown long-eared unconfirmed roost type (7 records), brown long-eared hibernation roost (1 record), brown long-eared possible maternity roost (1 record), Natterer's day roost (1 record). The remaining eight records were for unknown species of bat and unconfirmed roost types. The closest record was for a *Pipistrelle* sp. unconfirmed roost type c.670m to the south of the application site.
- 3.3 A search of the Multi Agency Geographic Information for the Countryside (MAGIC) online database (<http://magic.defra.gov.uk>) revealed that the following European Protected Species Licenses for bats have been granted in the surrounding 2km.
- Destruction of a breeding site and resting place of common pipistrelle and brown long-eared bat c.995m to the west.
 - Destruction of a breeding site and resting place of Natterer's, common pipistrelle and brown long-eared bat c.1175m to the west.
 - Destruction of a resting place of common pipistrelle and brown long-eared bat c.1965m to the north-west.

Nocturnal Survey

- 3.4 A summary of the results of each transect survey is provided below. This should be read in conjunction with the Bat Activity Plans (see Appendix A) recording bat locations. Two transect routes covered the site.

Transect Survey I (30 May 2022)

- 3.5 The survey commenced at 21:16. The most frequently recorded bat species was common pipistrelle, with 13 passes between 22:35 and 23:15. A big bat sp. was recorded at 22:15, 22:33 and 22:53 and a soprano pipistrelle was recorded at 22:16. The greatest number of passes were recorded along H2, followed by H1 and H3, with a few other spots of activity scattered around the site. The survey finished at 23:16.

Transect Survey II (27 July 2022)

- 3.6 The survey commenced at 21:06. The most frequently recorded bat species was common pipistrelle, with 36 passes between 21:19 and 23:04. This was followed by big bat sp., with 11 passes between 21:41 and 22:47. A brown long-eared bat was recorded at 21:48 and

22:07, and an unidentified *Pipistrellus* sp. social calls at 22:31 and 22:36. Activity was distributed fairly evenly across the entire site. The survey finished at 23:06.

Transect Survey III (20 September 2022)

- 3.7 The survey commenced at 19:10. The most frequently recorded bat species were common pipistrelle, with 33 passes between 19:25 and 21:05, and big bat sp., with 23 passes recorded between 19:17 and 20:50. A brown long-eared bat was recorded at 20:15 and 20:50, and a *Pipistrellus* sp. was recorded at 20:46. With the exception of H4 & 5, activity was fairly evenly distributed across the site. The survey finished at 21:10.

Table 5: Summary of Survey Results for Transect 1

Species	Number of Passes			Total no. of passes
	May 2022 Survey I	July 2022 Survey II	September 2022 Survey III	
<i>Myotis</i> sp.	0	0	0	0
Big bat sp.	2	7	5	14
Common pipistrelle	7	21	18	46
Soprano pipistrelle	0	0	0	0
Brown long-eared bat	0	2	0	2
Total no. of passes	9	30	23	62

Table 6: Summary of Survey Results for Transect 2

Species	Number of Passes			Total no. of passes
	May 2022 Survey I	July 2022 Survey II	September 2022 Survey III	
<i>Myotis</i> sp.	0	0	0	0
Big bat sp.	2	4	19	25
Common pipistrelle	6	15	15	36
Soprano pipistrelle	1	0	0	1
Brown long-eared bat	0	0	2	2
Total no. of passes	9	20	37	66

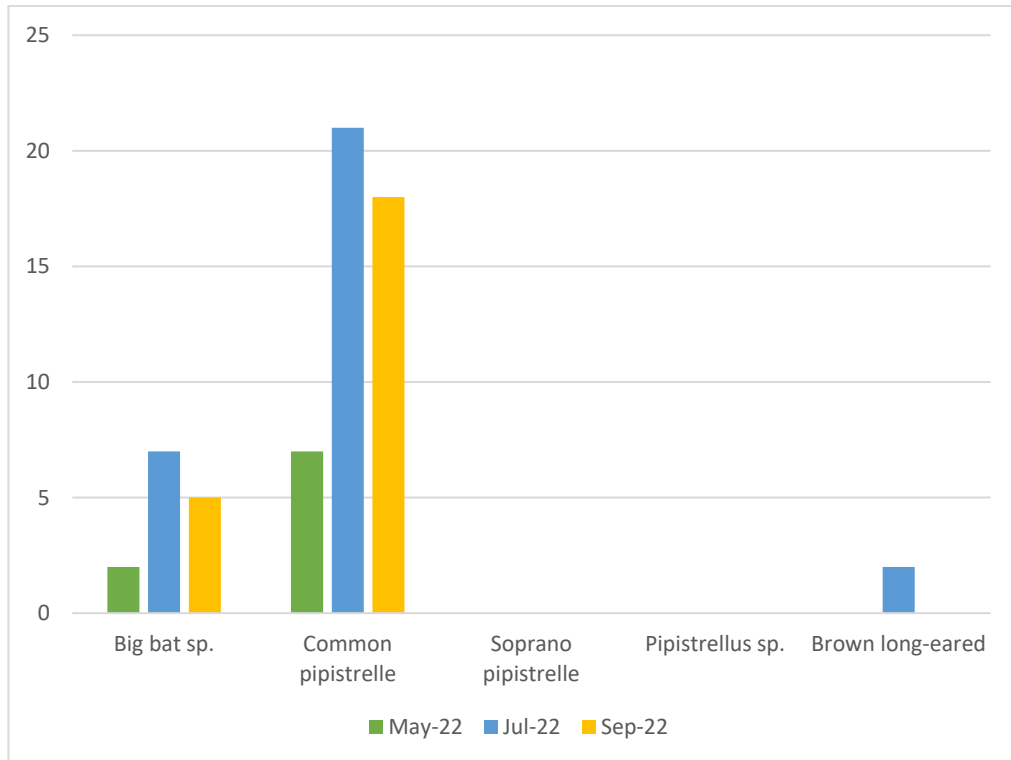


Figure 2: Graph showing the total number of bat passes (y-axis) for each species (x-axis) recorded on Transect 1 during May, July and September 2022 surveys.

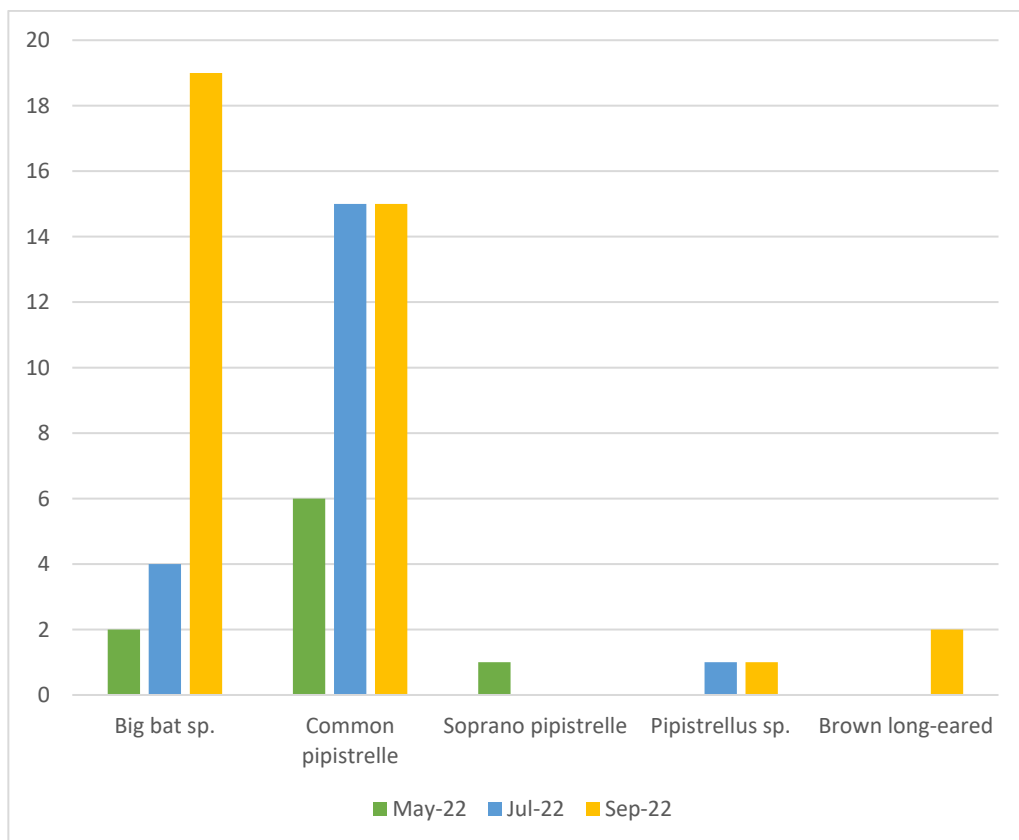


Figure 3: Graph showing the total number of bat passes (y-axis) for each species (x-axis) recorded on Transect 2 during May, July and September 2022 surveys.

Automated Survey

- 3.8 Four automated static bat detectors (Song Meter Mini Bat) were left on site for five consecutive nights per survey per month. Detector 1 was located in the centre of H9, detector 2 was located on the northern corner of H12, detector 3 was located in the centre of H7 and detector 4 was located in the centre of the section of H1 that runs between H2&3 (see Appendix A for locations). A summary of the results of each static survey is provided below:

Detector 1

- 3.9 A total of 1228 recordings were made by detector 1. Common pipistrelle was the most frequently recorded species accounting for 66% of activity followed by soprano pipistrelle (20%) and big bat sp. (12%).

Table 7: Summary of Survey Results recorded by Detector 1

Species	Total Number of Passes			Total
	30 May – 04 June 2022 Survey I	27 July – 01 August 2022 Survey II	20 – 25 September 2022 Survey III	
Common pipistrelle	314	232	268	814
Soprano pipistrelle	0	4	252	256
Brown long-eared bat	0	0	6	6
<i>Myotis</i> sp.	1	0	1	2
Big bat sp.	10	24	116	150
Total	325	260	643	1228

Detector 2

- 3.10 A total of 2893 recordings were made by the detector 2. Common pipistrelle was the most frequently recorded species accounting for 87% of activity, followed by soprano pipistrelle (9%) and big bat sp. (3%).

Table 8: Summary of Survey Results recorded by Detector 2

Species	Total Number of Passes			Total
	30 May – 04 June 2022 Survey I	27 July – 01 August 2022 Survey II	20 – 25 September 2022 Survey III	
Common pipistrelle	1553	603	361	2517
Soprano pipistrelle	0	4	252	256
Brown long-eared bat	8	1	25	34
<i>Myotis</i> sp.	0	2	1	3

Big bat sp.	15	10	58	83
Total	1576	620	697	2893

Detector 3

- 3.11 A total of 8544 recordings were made by detector 3. Common pipistrelle was the most frequently recorded species accounting for 85% of activity, followed by big bat sp. (10%) and *Myotis* sp. (3%).

Table 9: Summary of Survey Results recorded by Detector 1

	Total Number of Passes			
Species	30 May – 04 June 2022 Survey I	27 July – 01 August 2022 Survey II	20 – 25 September 2022 Survey III	Total
Common pipistrelle	137	2477	4667	7281
Soprano pipistrelle	0	3	2	5
Brown long-eared bat	0	9	120	129
<i>Myotis</i> sp.	1	7	245	253
Big bat sp.	45	190	641	876
Total	183	2686	5675	8544

Detector 4

- 3.12 A total of 3975 recordings were made by detector 4. Common pipistrelle was the most frequently recorded species accounting for 79% of activity, followed by big bat sp. (20%) and *Myotis* sp. (<1%).

Table 10: Summary of Survey Results recorded by Detector 1

	Total Number of Passes			
Species	30 May – 04 June 2022 Survey I	27 July – 01 August 2022 Survey II	20 – 25 September 2022 Survey III	Total
Common pipistrelle	387	456	2325	3168
Soprano pipistrelle	0	0	2	2
Brown long-eared bat	0	0	0	0
<i>Myotis</i> sp.	0	0	8	8
Big bat sp.	7	248	542	797
Total	394	704	2877	3975

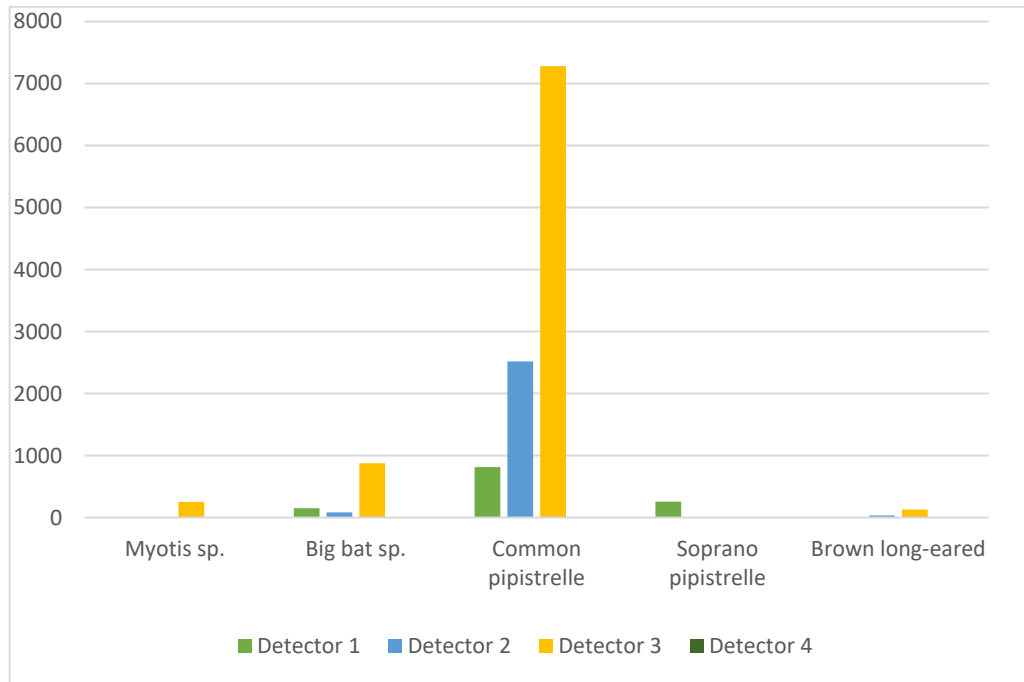


Figure 4: Bar chart showing the total number of bat passes (x-axis) for each species of bat (y-axis) recorded by static detectors for each static location from May, July and September 2022 surveys.

4.0 SITE ASSESSMENT AND RECOMMENDATIONS

Value of bat foraging and commuting habitat

- 4.1 The ecological value of bat foraging habitat and commuting corridors at the Land at Hinckley North has been assessed using the system of Wray *et al* (2010) in line with the CIEEM Guidelines for Ecological Impact Assessment (2006)¹.

Table 11: The value of site for commuting bats.

Species rarity (A)	Estimate of numbers (B)	Roosts / potential roosts nearby (C)	Type & complexity of linear features (D)	Total Score (A+B+C+D)	Commuting Value
Common pipistrelle (2)	Small number of bats (10)	Small number (3)	Walls, gappy or flailed hedgerows, isolated well-grown hedgerows, and moderate field sizes (3)	18	District, local or parish (Score 11 - 20)
Soprano pipistrelle (2)	Small number of bats (10)	Not known (4)	Walls, gappy or flailed hedgerows, isolated well-grown hedgerows, and moderate field sizes (3)	19	District, local or parish (Score 11 - 20)
Brown long-eared bat (2)	Small number of bats (10)	Small number (3)	Walls, gappy or flailed hedgerows, isolated well-grown hedgerows, and moderate field sizes (3)	18	District, local or parish (Score 11 - 20)
Myotis sp. (5)	Individual bats (5)	Small number (3)	Walls, gappy or flailed hedgerows, isolated well-grown hedgerows, and moderate field sizes (3)	16	District, local or parish (Score 11 - 20)
'Big Bats' (5)	Small number of bats (10)	Not known (4)	Walls, gappy or flailed hedgerows, isolated well-grown hedgerows, and moderate field sizes (3)	22	County (Score 21 - 30)

Table 13: The value of site for foraging bats.

Species rarity (A)	Estimate of numbers (B)	Roosts / potential roosts nearby (C)	Type & complexity of foraging features (E)	Total Score (A+B+C+E)	Foraging Value
Common pipistrelle (2)	Small number of bats (10)	Small number (3)	Suburban areas or intensive arable land (2)	17	District, local or parish (Score 11 - 20)
Soprano pipistrelle (2)	Small number of bats (10)	Not known (4)	Suburban areas or intensive arable land (2)	18	District, local or parish (Score 11 - 20)
Brown long-eared bat (2)	Small number of bats (10)	Small number (3)	Suburban areas or intensive arable land (2)	17	District, local or parish (Score 11 - 20)

¹ The CIEEM Guidelines for Ecological Impact Assessment have since been updated (2018). However, the category system described within Wray *et al*. remains the most effective assessment of foraging and commuting value in current guidelines.

Myotis sp. (5)	Individual bats (5)	Small number (3)	Suburban areas or intensive arable land (2)	15	District, local or parish (Score 11 - 20)
'Big Bats' (5)	Small number of bats (10)	Not known (4)	Suburban areas or intensive arable land (2)	21	County (Score 21 - 30)

Conclusion and Impacts

- 4.2 Activity recorded during all transect surveys was generally low with the majority of activity being from common pipistrelle. All boundary hedgerows are to be retained and enhanced as part of the development proposal and secured as part of a future Landscape & Ecological Management Plan (see below).

Mitigation & Enhancement Strategy

- 4.3 A scheme of mitigation, compensation and enhancement should be delivered via a future Ecological Mitigation & Enhancement Strategy and / or Landscape & Ecological Management Plan. The following are anticipated to form key elements of this plan:
- A sensitive scheme of night-lighting to specifically minimise nocturnal illumination of retained wildlife habitats.
 - Retention and protection of mature deciduous trees and hedgerows (excluding to facilitate access) within future development and landscaping proposals to retain connectivity within the wider landscape. All retained trees and hedgerows to be afforded adequate protection in line with 'BS5837: 2012 Trees in relation to design, demolition and construction'.
 - Retention and buffering of boundary hedgerows to ensure bat populations are not isolated from the wider countryside.
 - Bolstering of existing hedgerows and creation of additional native hedgerows planted in a two-staggered row to improve connectivity across the site. Additional tree planting along existing hedgerows to also improve their capacity to facilitate bat dispersal across the site.
 - Specific management of retained habitat areas (*e.g.* mature trees, hedgerows, field margins) to maximise wildlife value.
 - Incorporation of a new habitat areas and five new attenuation features along the eastern boundary, northern boundary and within the field to the west of Stoke Road will greatly improve available foraging resources in this area and compensate for development impacts.
 - Planting of 288 small trees and 240 small (fruit) trees. Total of 4.7km of native species-rich hedgerow with trees proposed.

- Species-rich (minimum 9 species per m²) wildflower meadow areas / strips to be created across the site.
- Inclusion of a variety of flowering plants with a range of colours, fragrances and shapes within the landscape planting to attract a diverse food source for foraging bats. Further advice and guidance of bat-friendly gardening has been provided by the Bat Conservation Trust (2015).
- New roosting provision in the form of crevice and hollow boxes to increase roosting opportunity post-development. Incorporation of bat ridge and slope access tiles within 20% of proposed units.
- Management prescriptions to ensure the implementation of the above mitigation, compensation and enhancement measures, ongoing ecological maintenance of retained habitats and aftercare of all important ecological features.

Conclusion

- 4.4 Provided that an appropriate scheme of mitigation, compensation and enhancement measures is provided (see above), it will be possible to maintain the '*favourable conservation status*' of the local bat population.

5.0 REFERENCES

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APPENDIX A

Bat Transect Plan I – 30 May 2022

Bat Transect Plan II – 27 July 2022

Bat Transect Plan III – 20 September 2022

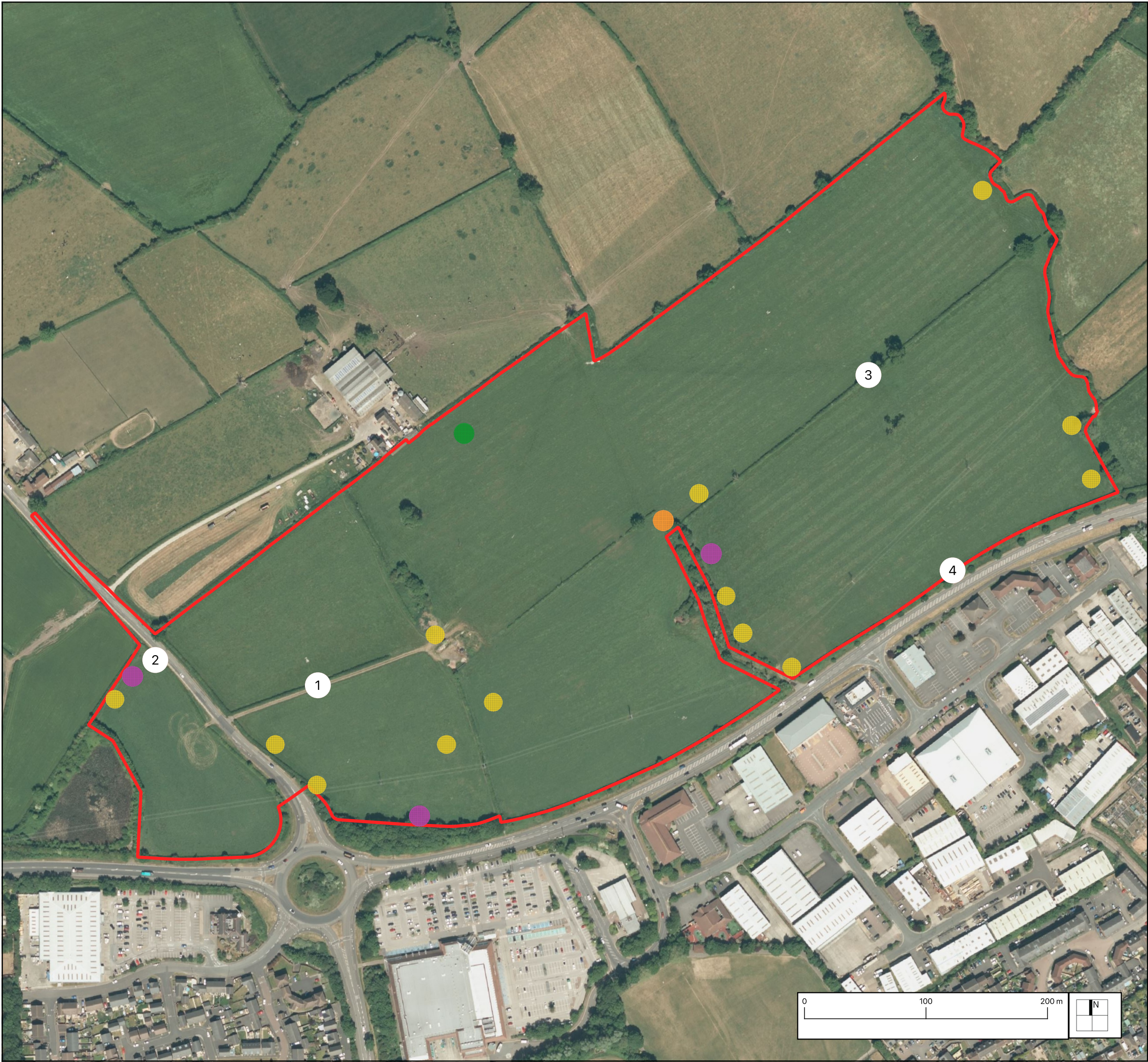
Combined Bat Transect Plan – May, July and September 2022

Table 14: Bat records with surveyor confirmed locations during transects

Transect 1 - Survey Date: 30 May 2022	
Bat Species	No. of records with confirmed location
Common pipistrelle	13
Soprano pipistrelle	1
<i>Nyctalus</i> sp.	1
Noctule	3

Transect 2 - Survey Date: 27 July 2022	
Bat Species	No. of records with confirmed location
Common pipistrelle	32
Soprano pipistrelle	0
<i>Nyctalus</i> sp.	5
Noctule	4

Transect 3 - Survey Date: 20 September 2022	
Bat Species	No. of records with confirmed location
Common pipistrelle	19
Soprano pipistrelle	0
<i>Nyctalus</i> sp.	0
Noctule	9
Serotine	5



Transect Survey Plan - May 2022
Land East of Stoke Road and North
of Normandy Way
Hinckley, Leicestershire, DY10 1YE

 Red Line Boundary

 Automated Detector

Location of bat species encountered
during survey effort

 Common (45kHz) Pipistrelle

 Noctule

 Nyctalus sp.

 Soprano (55kHz) Pipistrelle

 Transect 1

 Transect 2

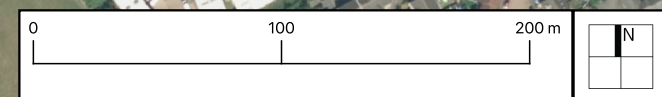


Richborough Estates
ZEL 203

Bat Transect Survey Plan - 30 May
2022 Hinckley, Leicestershire,
DY10 1YE

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Transect Survey Plan - July 2022
Land West of Stoke Road
Hinckley, Leicestershire, DY10 1YE

- Automated Detector
- Location of bat species encountered during survey effort
- Common (45kHz) Pipistrelle
- Nyctalus sp.
- Noctule
- Transect 1
- Transect 2
- Red Line Boundary